

PHILIPPINE BIDDING DOCUMENTS

(As Harmonized with Development Partners)

Procurement of Infrastructure Services for the Project: Renovation of Four (4) Guard House at John Hay Special Economic Zone (JHSEZ)

Government of the Republic of the Philippines

**Fifth Edition
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Section I. Invitation To Bid

INVITATION TO BID

PROCUREMENT OF INFRASTRUCTURE PROJECT: RENOVATION OF FOUR (4) GUARD HOUSES AT JOHN HAY SPECIAL ECONOMIC ZONE (JHSEZ)

1. The John Hay Management Corporation, through the Corporate Operating Budget 2018 intends to apply the sum of **Eight Hundred Ninety-Nine Thousand Eight Hundred Eight and 88/100 Pesos (PhP 899,808.88)**, being the Approved Budget for the Contract (ABC), to payments under the contract for the Procurement of Infrastructure Project for the Renovation of Four (4) Guard Houses at John Hay Special Economic Zone (JHSEZ) with the following details. Bids received in excess of the ABC shall be automatically rejected at bid opening.

PAP CODE	DESCRIPTION	PROJECT DURATION (CALENDAR DAYS)	COST OF BIDDING DOCUMENTS (PHP)
INFRA-04	Renovation of Four (4) Guard Houses at John Hay Special Economic Zone (JHSEZ) Location: 1. Ayala Technohub 2. BCDA Cottages 3. Area 1 4. Camper 2	34	1,000.00

2. The JHMC now invites bids for the above-stated projects. Completion of works is required upon receipt of the approved Notice to Proceed. Bidders should have completed, within **five (5) years** from the date of submission and receipt of bids, a contract similar to the Projects. 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 a non-discretionary “pass/fail” criterion as specified in the 2016 Revised Implementing Rules and Regulations (IRR) of Republic Act (RA) 9184, otherwise known as the “Government Procurement Reform Act”.

Bidding is restricted to Filipino citizens/sole proprietorships, partnerships, or organizations with at least sixty percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines, and to citizens or organizations of a country the

laws or regulations of which grant similar rights or privileges to Filipino citizens, pursuant to RA 5183.

4. Interested bidders may obtain further information from JHMC Bids and Awards Committee (BAC) Secretariat and inspect the Bidding Documents at the address given below from 8:00 AM to 4:30 PM, Mondays through Fridays.
5. **A complete set of Bidding Documents may be acquired by interested bidders on September 17 to October 10, 2018** from the address below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount as stated above.

It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity, provided that bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

6. The JHMC will hold a **Pre-Bid Conference on 26 September 2018, 10:00 AM at Bell House, Camp John Hay, Baguio City**, which shall be open to prospective bidders.
7. **Bids must be duly received by the BAC Secretariat at the address below on or before 10 October 2018 at 9:00 A.M.** All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in ITB Clause 18. Late bids shall not be accepted. Bid opening shall be on **10 October 2018 at 10:00 AM. at the Bell House, Camp John Hay, Baguio City.** Bids will be opened in the presence of the bidders' representatives who choose to attend at the address stated above.
8. The JHMC 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 Section 41 of RA 9184 and its IRR, without thereby incurring any liability to the affected bidder or bidders. It also assumes no responsibility whatsoever to compensate or indemnify any bidder for expenses incurred in the preparation of bid.
9. For further information, please refer to:

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A. General

1. Scope of Bid

- 1.1. The Procuring Entity named in the **BDS**, invites bids for the construction of Works, as described in Section VI. Specifications.
- 1.2. The name, identification, and number of lots specific to this bidding are provided in the **BDS**. The contracting strategy and basis of evaluation of lots is described in **ITB** Clause 27.
- 1.3. The successful Bidder will be expected to complete the Works by the intended completion date specified in **SCC** Clause 1.17.

2. Source of Funds

The Procuring Entity has a budget or received funds from the Funding Source named in the **BDS**, and in the amount indicated in the **BDS**. It intends to apply part of the funds received for the Project, as defined in the **BDS**, to cover eligible payments under the Contract for the Works.

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

- 3.1. Unless otherwise specified in the **BDS**, the Procuring Entity, as well as bidders and contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. In pursuance of this policy, the Funding Source:
 - (a) defines, for purposes of this provision, the terms set forth below as follows:
 - (i) "corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves, others, or induce others to do so, by misusing the position in which they are placed, and includes the offering, giving, receiving, or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution; entering, on behalf of the Procuring Entity, into any contract or transaction manifestly and grossly disadvantageous to the same, whether or not the public officer profited or will profit thereby, and similar acts as provided in Republic Act 3019;
 - (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Procuring Entity, and includes collusive practices among Bidders (prior to or after Bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the Procuring Entity of the benefits of free and open competition;

- (iii) “collusive practices” means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Procuring Entity, designed to establish bid prices at artificial, non-competitive levels; and
 - (iv) “coercive practices” means harming or threatening to harm, directly or indirectly, persons, or their property to influence their participation in a procurement process, or affect the execution of a contract;
 - (v) “obstructive practice” is
 - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to an administrative proceedings or investigation or making false statements to investigators in order to materially impede an administrative proceedings or investigation of the Procuring Entity or any foreign government/foreign or international financing institution into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the administrative proceedings or investigation or from pursuing such proceedings or investigation; or
 - (bb) acts intended to materially impede the exercise of the inspection and audit rights of the Procuring Entity or any foreign government/foreign or international financing institution herein.
 - (b) will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the Contract; and
 - (c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded Contract funded by the Funding Source if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing or, or in executing, a Contract funded by the Funding Source.
- 3.2. Further, the Procuring Entity will seek to impose the maximum civil, administrative, and/or criminal penalties available under the applicable laws on individuals and organizations deemed to be involved in any of the practices mentioned in **ITB** Clause 3.1(a).
- 3.3. Furthermore, the Funding Source and the Procuring Entity reserve the right to inspect and audit records and accounts of a contractor in the bidding for and performance of a contract themselves or through independent auditors as reflected in the **GCC** Clause 34.

4. Conflict of Interest

4.1. All Bidders found to have conflicting interests shall be disqualified to participate in the procurement at hand, without prejudice to the imposition of appropriate administrative, civil, and criminal sanctions. A Bidder may be considered to have conflicting interests with another Bidder in any of the events described in paragraphs (a) through (c) and a general conflict of interest in any of the circumstances set out in paragraphs (d) through (g) below:

- (a) A Bidder has controlling shareholders in common with another Bidder;
- (b) A Bidder receives or has received any direct or indirect subsidy from any other Bidder;
- (c) A Bidder has the same legal representative as that of another Bidder for purposes of this Bid;
- (d) A Bidder has a relationship, directly or through third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder or influence the decisions of the Procuring Entity regarding this bidding process;
- (e) A Bidder submits more than one bid in this bidding process. However, this does not limit the participation of subcontractors in more than one bid;
- (f) A Bidder who participated as a consultant in the preparation of the design or technical specifications of the goods and related services that are the subject of the bid; or
- (g) A Bidder who lends, or temporarily seconds, its personnel to firms or organizations which are engaged in consulting services for the preparation related to procurement for or implementation of the project, if the personnel would be involved in any capacity on the same project.

4.2. In accordance with Section 47 of the IRR of RA 9184, all Bidding Documents shall be accompanied by a sworn affidavit of the Bidder that it is not related to the Head of the Procuring Entity (HoPE), members of the Bids and Awards Committee (BAC), members of the Technical Working Group (TWG), members of the BAC Secretariat, the head of the Project Management Office (PMO) or the end-user unit, and the project consultants, by consanguinity or affinity up to the third civil degree. On the part of the Bidder, this Clause shall apply to the following persons:

- (a) If the Bidder is an individual or a sole proprietorship, to the Bidder himself;
- (b) If the Bidder is a partnership, to all its officers and members;

- (c) If the Bidder is a corporation, to all its officers, directors, and controlling stockholders;
- (d) If the Bidder is a cooperative, to all its officers, directors, and controlling shareholders or members; and
- (e) If the Bidder is a joint venture (JV), the provisions of items (a), (b), (c) or (d) of this Clause shall correspondingly apply to each of the members of the said JV, as may be appropriate.

Relationship of the nature described above or failure to comply with this Clause will result in the automatic disqualification of a Bidder.

5. Eligible Bidders

5.1. Unless otherwise indicated in the **BDS**, the following persons shall be eligible to participate in this Bidding:

- (a) Duly licensed Filipino citizens/sole proprietorships;
- (b) Partnerships duly organized under the laws of the Philippines and of which at least seventy five percent (75%) of the interest belongs to citizens of the Philippines;
- (c) Corporations duly organized under the laws of the Philippines, and of which at least seventy five percent (75%) of the outstanding capital stock belongs to citizens of the Philippines;
- (d) Cooperatives duly organized under the laws of the Philippines.
- (e) Persons/entities forming themselves into a JV, i.e., a group of two (2) or more persons/entities that intend to be jointly and severally responsible or liable for a particular contract: Provided, however, that, in accordance with Letter of Instructions No. 630, Filipino ownership or interest of the joint venture concerned shall be at least seventy five percent (75%): Provided, further, that joint ventures 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 a person/entity meeting the seventy five percent (75%) Filipino ownership requirement: Provided, finally, that in the latter case, Filipino ownership or interest shall not be less than twenty five percent (25%). For this purpose, Filipino ownership or interest shall be based on the contributions of each of the members of the joint venture as specified in their JVA.

5.2. The Procuring Entity may also invite foreign bidders when provided for under any Treaty or International or Executive Agreement as specified in the **BDS**.

5.3. Government owned or controlled corporations (GOCCs) may be eligible to participate only if they can establish that they (a) are legally and financially

autonomous, (b) operate under commercial law, and (c) are not attached agencies of the Procuring Entity.

- 5.4. (a) 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 Philippine Statistics Authority (PSA) consumer price index. However, 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.

(b) 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 **BDS**.

For this purpose, contracts similar to the Project shall be those described in the **BDS**.

- 5.5. The Bidder must submit a computation of its Net Financial Contracting Capacity (NFCC), which must be at least equal to the ABC to be bid, calculated as follows:

$$\text{NFCC} = [(\text{Current assets minus current liabilities}) (15)] \text{ minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started coinciding with the contract for this Project.}$$

The values of the domestic bidder's current assets and current liabilities shall be based on the latest Audited Financial Statements (AFS) submitted to the BIR.

For purposes of computing the foreign bidders' NFCC, the value of the current assets and current liabilities shall be based on their audited financial statements prepared in accordance with international financial reporting standards.

6. Bidder's Responsibilities

- 6.1. The Bidder or its duly authorized representative shall submit a sworn statement in the form prescribed in Section IX. Bidding Forms as required in **ITB** Clause 12.1(b)(iii).

- 6.2. The Bidder is responsible for the following:

- (a) Having taken steps to carefully examine all of the Bidding Documents;
- (b) Having acknowledged all conditions, local or otherwise, affecting the implementation of the contract;

- (c) Having made an estimate of the facilities available and needed for the contract to be bid, if any;
- (d) Having complied with its responsibility to inquire or secure Supplemental/Bid Bulletin/s as provided under **ITB** Clause 10.4.
- (e) Ensuring that it is not “blacklisted” or barred from bidding by the GoP or any of its agencies, offices, corporations, or LGUs, including foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the GPPB;
- (f) Ensuring that each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
- (g) Authorizing the HoPE or its duly authorized representative/s to verify all the documents submitted;
- (h) Ensuring that the signatory is the duly authorized representative of the Bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract, accompanied by the duly notarized Special Power of Attorney, Board/Partnership Resolution, or Secretary’s Certificate, whichever is applicable;
- (i) Complying with the disclosure provision under Section 47 of RA 9184 and its IRR in relation to other provisions of RA 3019;
- (j) Complying with existing labor laws and standards, in the case of procurement of services. Moreover, bidder undertakes to:
 - (i) Ensure the entitlement of workers to wages, hours of work, safety and health and other prevailing conditions of work as established by national laws, rules and regulations; or collective bargaining agreement; or arbitration award, if and when applicable.

In case there is a finding by the Procuring Entity or the DOLE of underpayment or non-payment of workers’ wage and wage-related benefits, bidder agrees that the performance security or portion of the contract amount shall be withheld in favor of the complaining workers pursuant to appropriate provisions of Republic Act No. 9184 without prejudice to the institution of appropriate actions under the Labor Code, as amended, and other social legislations.
 - (ii) Comply with occupational safety and health standards and to correct deficiencies, if any.

In case of imminent danger, injury or death of the worker, bidder undertakes to suspend contract implementation pending clearance to proceed from the DOLE Regional Office and to comply with Work Stoppage Order; and

- (iii) Inform the workers of their conditions of work, labor clauses under the contract specifying wages, hours of work and other benefits under prevailing national laws, rules and regulations; or collective bargaining agreement; or arbitration award, if and when applicable, through posting in two (2) conspicuous places in the establishment's premises; and
- (k) Ensuring that it did not give or pay, directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the;

Failure to observe any of the above responsibilities shall be at the risk of the Bidder concerned.

- 6.3. The Bidder, by the act of submitting its bid, shall be deemed to have inspected the site, determined the general characteristics of the contract works and the conditions for this Project and examine all instructions, forms, terms, and project requirements in the Bidding Documents.
- 6.4. It shall be the sole responsibility of the prospective bidder to determine and to satisfy itself by such means as it considers necessary or desirable as to all matters pertaining to this Project, including: (a) the location and the nature of the contract, project, or 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.
- 6.5. The Procuring Entity shall not assume any responsibility regarding erroneous interpretations or conclusions by the prospective or eligible bidder out of the data furnished by the procuring entity. However, the Procuring Entity shall ensure that all information in the Bidding Documents, including supplemental/bid bulletins issued are correct and consistent.
- 6.6. Before submitting their bids, the Bidders are deemed to have become familiar with all existing laws, decrees, ordinances, acts and regulations of the Philippines which may affect the contract in any way.
- 6.7. The Bidder shall bear all costs associated with the preparation and submission of his bid, and the Procuring Entity will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- 6.8. The Bidder should note that the Procuring Entity will accept bids only from those that have paid the applicable fee for the Bidding Documents at the office indicated in the Invitation to Bid.

7. Origin of Goods and Services

There is no restriction on the origin of Goods, or Contracting of Works or Services other than those prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations.

8. Subcontracts

- 8.1. Unless otherwise specified in the **BDS**, the Bidder may subcontract portions of the Works to an extent as may be approved by the Procuring Entity and stated in the **BDS**. However, subcontracting of any portion shall not relieve the Bidder from any liability or obligation that may arise from the contract for this Project.
- 8.2. Subcontractors must submit the documentary requirements under **ITB** Clause 12 and comply with the eligibility criteria specified in the **BDS**. In the event that any subcontractor is found by the Procuring Entity to be ineligible, the subcontracting of such portion of the Works shall be disallowed.
- 8.3. The Bidder may identify the subcontractor to whom a portion of the Works will be subcontracted at any stage of the bidding process or during contract implementation. If the Bidder opts to disclose the name of the subcontractor during bid submission, the Bidder shall include the required documents as part of the technical component of its bid.

B. Contents of Bidding Documents

9. Pre-Bid Conference

- 9.1. (a) If so specified in the **BDS**, a pre-bid conference shall be held at the venue and on the date indicated therein, to clarify and address the Bidders' questions on the technical and financial components of this Project.

(b) The pre-bid conference shall be held at least twelve (12) calendar days before the deadline for the submission of and receipt of bids, but not earlier than seven (7) calendar days from the posting of the Invitation to Bid/Bidding Documents in the PhilGEPS website. If the Procuring Entity determines that, by reason of the method, nature, or complexity of the contract to be bid, or when international participation will be more advantageous to the GoP, a longer period for the preparation of bids is necessary, the pre-bid conference shall be held at least thirty (30) calendar days before the deadline for the submission and receipt of bids, as specified in the **BDS**.
- 9.2. Bidders are encouraged to attend the pre-bid conference to ensure that they fully understand the Procuring Entity's requirements. Non-attendance of the Bidder will in no way prejudice its bid; however, the Bidder is expected to know the changes and/or amendments to the Bidding Documents as recorded in the minutes of the pre-bid conference and the Supplemental/Bid Bulletin. The minutes of the pre-bid conference shall be recorded and prepared not later than five (5) calendar days after the pre-bid conference. The minutes shall be

made available to prospective bidders not later than five (5) days upon written request.

- 9.3. Decisions of the BAC amending any provision of the bidding documents shall be issued in writing through a Supplemental/Bid Bulletin at least seven (7) calendar days before the deadline for the submission and receipt of bids.

10. Clarification and Amendment of Bidding Documents

- 10.1. Prospective bidders may request for clarification(s) on and/or interpretation of any part of the Bidding Documents. Such a request must be in writing and submitted to the Procuring Entity at the address indicated in the **BDS** at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.
- 10.2. The BAC shall respond to the said request by issuing a Supplemental/Bid Bulletin, to be made available to all those who have properly secured the Bidding Documents, at least seven (7) calendar days before the deadline for the submission and receipt of Bids.
- 10.3. Supplemental/Bid Bulletins may also be issued upon the Procuring Entity's initiative for purposes of clarifying or modifying any provision of the Bidding Documents not later than seven (7) calendar days before the deadline for the submission and receipt of Bids. Any modification to the Bidding Documents shall be identified as an amendment.
- 10.4. Any Supplemental/Bid Bulletin issued by the BAC shall also be posted in the PhilGEPS and the website of the Procuring Entity concerned, if available, and at any conspicuous place in the premises of the Procuring Entity concerned. It shall be the responsibility of all Bidders who have properly secured the Bidding Documents to inquire and secure Supplemental/Bid Bulletins that may be issued by the BAC. However, Bidders who have submitted bids before the issuance of the Supplemental/Bid Bulletin must be informed and allowed to modify or withdraw their bids in accordance with **ITB** Clause 23.

C. Preparation of Bids

11. Language of Bids

The eligibility requirements or statements, the bids, and all other documents to be submitted to the BAC must be in English. If the eligibility requirements or statements, the bids, and all other documents submitted to the BAC are in foreign language other than English, it must be accompanied by a translation of the documents in English. The documents shall be translated by the relevant foreign government agency, the foreign government agency authorized to translate documents, or a registered translator in the foreign bidder's country; and 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. The English translation shall govern, for purposes of interpretation of the bid.

12. Documents Comprising the Bid: Eligibility and Technical Components

12.1. Unless otherwise indicated in the **BDS**, the first envelope shall contain the following eligibility and technical documents:

(a) Eligibility Documents –

Class “A” Documents

- (i) PhilGEPS Certificate of Registration and Membership in accordance with Section 8.5.2 of the IRR, except for foreign bidders participating in the procurement by a Philippine Foreign Service Office or Post, which shall submit their eligibility documents under Section 23.1 of the IRR, provided, that the winning bidder shall register with the PhilGEPS in accordance with Section 37.1.4 of the IRR;
- (ii) Statement 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; and

Statement of the Bidder’s SLCC similar to the contract to be bid, in accordance with ITB Clause 5.4.

The two statements required shall indicate for each contract the following:

- (ii.1) name of the contract;
- (ii.2) date of the contract;
- (ii.3) contract duration;
- (ii.4) owner’s name and address;
- (ii.5) nature of work;
- (ii.6) contractor’s role (whether sole contractor, subcontractor, or partner in a JV) and percentage of participation;
- (ii.7) total contract value at award;
- (ii.8) date of completion or estimated completion time;
- (ii.9) total contract value at completion, if applicable;
- (ii.10) percentages of planned and actual accomplishments, if applicable; and

(ii.11) value of outstanding works, if applicable.

The statement of the Bidder's SLCC shall be supported by the Notice of Award and/or Notice to Proceed, Project Owner's Certificate of Final Acceptance issued by the Owner other than the Contractor or the Constructors Performance Evaluation System (CPES) Final Rating, which must be at least satisfactory. In case of contracts with the private sector, an equivalent document shall be submitted;

- (iii) Unless otherwise provided in the **BDS**, a valid special PCAB License in case of joint ventures, and registration for the type and cost of the contract for this Project; and
- (iv) NFCC computation in accordance with ITB Clause 5.5.

Class "B" Documents

- (v) If applicable, Joint Venture Agreement (JVA) in accordance with RA 4566.
- (b) Technical Documents –
- (i) Bid security in accordance with **ITB** Clause 18. If the Bidder opts to submit the bid security in the form of:
 - (i.1) a bank draft/guarantee or an irrevocable letter of credit issued by a foreign bank, it shall be accompanied by a confirmation from a Universal or Commercial Bank; or
 - (i.2) a surety bond accompanied by a certification coming from the Insurance Commission that the surety or insurance company is authorized to issue such instruments.
 - (ii) Project Requirements, which shall include the following:
 - (ii.1) Organizational chart for the contract to be bid;
 - (ii.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. These personnel must meet the required minimum years of experience set in the **BDS**; and
 - (ii.3) 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, which must meet the minimum requirements for the contract set in the **BDS**; and

- (iii) Sworn statement in accordance with Section 25.3 of the IRR of RA 9184 and using the form prescribed in Section IX. Bidding Forms.

13. Documents Comprising the Bid: Financial Component

13.1. Unless otherwise stated in the **BDS**, the financial component of the bid shall contain the following:

- (a) Financial Bid Form, which includes bid prices and the bill of quantities, in accordance with **ITB** Clauses 15.1 and 15.3; and
- (b) Any other document related to the financial component of the bid as stated in the **BDS**.

13.2. (a) Unless otherwise stated in the **BDS**, all Bids that exceed the ABC shall not be accepted.

- (b) Unless otherwise indicated in the **BDS**, for foreign-funded procurement, a ceiling may be applied to bid prices provided the following conditions are met:

- (i) Bidding Documents are obtainable free of charge on a freely accessible website. If payment of Bidding Documents is required by the procuring entity, payment could be made upon the submission of bids.
- (ii) The procuring entity has procedures in place to ensure that the ABC is based on recent estimates made by the engineer or the responsible unit of the procuring entity and that the estimates are based on adequate detailed engineering (in the case of infrastructure projects) and reflect the quality, supervision and risk and inflationary factors, as well as prevailing market prices, associated with the types of works or goods to be procured.
- (iii) The procuring entity has trained cost estimators on estimating prices and analyzing bid variances. In the case of infrastructure projects, the procuring entity must also have trained quantity surveyors.
- (iv) The procuring entity has established a system to monitor and report bid prices relative to ABC and engineer's/procuring entity's estimate.
- (v) The procuring entity has established a monitoring and evaluation system for contract implementation to provide a feedback on actual total costs of goods and works.

14. Alternative Bids

- 14.1. Alternative Bids shall be rejected. For this purpose, alternative bid is an offer made by a Bidder in addition or as a substitute to its original bid which may be included as part of its original bid or submitted separately therewith for purposes of bidding. A bid with options is considered an alternative bid regardless of whether said bid proposal is contained in a single envelope or submitted in two (2) or more separate bid envelopes.
- 14.2. 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.
- 14.3. Each Bidder shall submit only one Bid, either individually or as a partner in a JV. A Bidder who submits or participates in more than one bid (other than as a subcontractor if a subcontractor is permitted to participate in more than one bid) will cause all the proposals with the Bidder's participation to be disqualified. This shall be without prejudice to any applicable criminal, civil and administrative penalties that may be imposed upon the persons and entities concerned.

15. Bid Prices

- 15.1. The contract shall be for the whole Works, as described in **ITB** Clause 1.1, based on the priced Bill of Quantities submitted by the Bidder.
- 15.2. The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Bids not addressing or providing all of the required items in the Bidding Documents including, where applicable, Bill of Quantities, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the Government, except those required by law or regulations to be provided for.
- 15.3. All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, prior to the deadline for submission of bids, shall be included in the rates, prices, and total bid price submitted by the Bidder.
- 15.4. All bid prices for the given scope of work in the contract as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as specified in GCC Clause 48. Upon the recommendation of the Procuring Entity, price escalation may be allowed in extraordinary circumstances as may be determined by the National Economic and Development Authority in accordance with the Civil Code of the Philippines, and upon approval by the GPPB. Furthermore, in cases where the cost of the awarded contract is affected by any applicable new laws, ordinances, regulations, or other acts of

the GoP, promulgated after the date of bid opening, a contract price adjustment shall be made or appropriate relief shall be applied on a no loss-no gain basis.

16. Bid Currencies

- 16.1. All bid prices shall be quoted in Philippine Pesos unless otherwise provided in the **BDS**. However, for purposes of bid evaluation, bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate prevailing on the day of the Bid Opening.
- 16.2. If so allowed in accordance with **ITB** Clause 16.1, the Procuring Entity for purposes of bid evaluation and comparing the bid prices will convert the amounts in various currencies in which the bid price is expressed to Philippine Pesos at the exchange rate as published in the *Bangko Sentral ng Pilipinas* (BSP) reference rate bulletin on the day of the bid opening.
- 16.3. Unless otherwise specified in the **BDS**, payment of the contract price shall be made in Philippine Pesos.

17. Bid Validity

- 17.1. Bids shall remain valid for the period specified in the **BDS** which shall not exceed one hundred twenty (120) calendar days from the date of the opening of bids.
- 17.2. In exceptional circumstances, prior to the expiration of the bid validity period, the Procuring Entity may request Bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. The bid security described in **ITB** Clause 18 should also be extended corresponding to the extension of the bid validity period at the least. A Bidder may refuse the request without forfeiting its bid security, but his bid shall no longer be considered for further evaluation and award. A Bidder granting the request shall not be required or permitted to modify its bid.

18. Bid Security

- 18.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in an amount stated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the following schedule:

Form of Bid Security	Amount of Bid Security (Not less than the Percentage of the ABC)
(a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank. <i>For biddings conducted by LGUs, the cashier's/manager's check may be issued by other</i>	Two percent (2%)

<p><i>banks certified by the BSP as authorized to issue such financial instrument.</i></p>	
<p>(b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.</p> <p><i>For biddings conducted by LGUs, the Bank Draft/Guarantee, or irrevocable letter of credit may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i></p>	
<p>(c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security; and/or</p>	<p>Five percent (5%)</p>

The Bid Securing Declaration mentioned above is an undertaking which states, among others, that the Bidder shall enter into contract with the procuring entity and furnish the performance security required under ITB Clause 32.2, within ten (10) calendar days from receipt of the Notice of Award, and commits to pay the corresponding amount as fine, and be suspended for a period of time from being qualified to participate in any government procurement activity in the event it violates any of the conditions stated therein as provided in the guidelines issued by the GPPB.

- 18.2. The bid security should be valid for the period specified in the **BDS**. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.
- 18.3. No bid securities shall be returned to Bidders after the opening of bids and before contract signing, except to those that failed or declared as post-disqualified, upon submission of a written waiver of their right to file a request for reconsideration and/or protest, or lapse of the reglementary period without having filed a request for reconsideration or protest. Without prejudice on its forfeiture, Bid Securities shall be returned only after the Bidder with the Lowest Calculated Responsive Bid (LCRB) has signed the contract and furnished the Performance Security, but in no case later than the expiration of the Bid Security validity period indicated in **ITB** Clause 18.2.

18.4. Upon signing and execution of the contract, pursuant to **ITB** Clause 31, and the posting of the performance security, pursuant to **ITB** Clause 32, the successful Bidder's Bid Security will be discharged, but in no case later than the Bid Security validity period as indicated in **ITB** Clause 18.2.

18.5. The bid security may be forfeited:

(a) if a Bidder:

- (i) withdraws its bid during the period of bid validity specified in **ITB** Clause 17;
- (ii) does not accept the correction of errors pursuant to **ITB** Clause 27.3(b);
- (iii) has a finding against the veracity of the required documents submitted in accordance with **ITB** Clause 28.2;
- (iv) submission of eligibility requirements containing false information or falsified documents;
- (v) submission of bids that contain false information or falsified documents, or the concealment of such information in the bids in order to influence the outcome of eligibility screening or any other stage of the public bidding;
- (vi) allowing the use of one's name, or using the name of another for purposes of public bidding;
- (vii) withdrawal of a bid, or refusal to accept an award, or enter into contract with the Government without justifiable cause, after the Bidder had been adjudged as having submitted the LCRB;
- (viii) refusal or failure to post the required performance security within the prescribed time;
- (ix) refusal to clarify or validate in writing its bid during post-qualification within a period of seven (7) calendar days from receipt of the request for clarification;
- (x) any documented attempt by a Bidder to unduly influence the outcome of the bidding in his favor;
- (xi) failure of the potential joint venture partners to enter into the joint venture after the bid is declared successful; or
- (xii) all other acts that tend to defeat the purpose of the competitive bidding, such as habitually withdrawing from bidding, submitting late Bids or patently insufficient bid, for at least three (3) times within a year, except for valid reasons.

(b) if the successful Bidder:

- (i) fails to sign the contract in accordance with **ITB** Clause 31;
- (ii) fails to furnish performance security in accordance with **ITB** Clause 32.

19. Format and Signing of Bids

- 19.1 Bidders shall submit their bids through their duly authorized representative using the appropriate forms provided in Section IX. Bidding Forms on or before the deadline specified in the **ITB** Clause 21 in two (2) separate sealed bid envelopes, and which shall be submitted simultaneously. The first shall contain the technical component of the bid, including the eligibility requirements under **ITB** Clause 12.1, and the second shall contain the financial component of the bid. This shall also be observed for each lot in the case of lot procurement.
- 19.2 Forms as mentioned in **ITB** Clause 19.1 must be completed without any alterations to their format, and no substitute form shall be accepted. All blank spaces shall be filled in with the information requested.
- 19.3 The Bidder shall prepare and submit an original of the first and second envelopes as described in **ITB** Clauses 12 and 13. In addition, the Bidder shall submit copies of the first and second envelopes. In the event of any discrepancy between the original and the copies, the original shall prevail.
- 19.4 Each and every page of the Bid Form, including the Bill of Quantities, under Section IX hereof, shall be signed by the duly authorized representative/s of the Bidder. Failure to do so shall be a ground for the rejection of the bid.
- 19.5 Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the duly authorized representative/s of the Bidder.

20. Sealing and Marking of Bids

- 20.1. Bidders shall enclose their original eligibility and technical documents described in **ITB** Clause 12, in one sealed envelope marked “ORIGINAL - TECHNICAL COMPONENT,” and the original of their financial component in another sealed envelope marked “ORIGINAL - FINANCIAL COMPONENT,” sealing them all in an outer envelope marked “ORIGINAL BID.”
- 20.2. Each copy of the first and second envelopes shall be similarly sealed duly marking the inner envelopes as “COPY NO. ___ - TECHNICAL COMPONENT” and “COPY NO. ___ – FINANCIAL COMPONENT” and the outer envelope as “COPY NO. ___,” respectively. These envelopes containing the original and the copies shall then be enclosed in one single envelope.
- 20.3. The original and the number of copies of the bid as indicated in the **BDS** shall be typed or written in ink and shall be signed by the Bidder or its duly authorized representative/s.

- 20.4. All envelopes shall:
- (a) contain the name of the contract to be bid in capital letters;
 - (b) bear the name and address of the Bidder in capital letters;
 - (c) be addressed to the Procuring Entity's BAC in accordance with **ITB** Clause 20.1;
 - (d) bear the specific identification of this bidding process indicated in the **ITB** Clause 1.2; and
 - (e) bear a warning "DO NOT OPEN BEFORE..." the date and time for the opening of bids, in accordance with **ITB** Clause 21.
- 20.5. Bid envelopes that are not properly sealed and marked, as required in the bidding documents, shall not be rejected, but the Bidder or its duly authorized representative shall acknowledge such condition of the bid as submitted. The BAC or the Procuring Entity shall assume no responsibility for the misplacement of the contents of the improperly sealed or marked bid, or for its premature opening.

D. Submission and Opening of Bids

21. Deadline for Submission of Bids

Bids must be received by the Procuring Entity's BAC at the address and on or before the date and time indicated in the **BDS**.

22. Late Bids

Any bid submitted after the deadline for submission and receipt of bids prescribed by the Procuring Entity, pursuant to **ITB** Clause 21, shall be declared "Late" and shall not be accepted by the Procuring Entity. The BAC shall record in the minutes of Bid Submission and Opening, the Bidder's name, its representative and the time the late bid was submitted.

23. Modification and Withdrawal of Bids

23.1. The Bidder may modify its bid after it has been submitted; provided that the modification is received by the Procuring Entity prior to the deadline prescribed for submission and receipt of bids. The Bidder shall not be allowed to retrieve its original bid, but shall be allowed to submit another bid equally sealed and properly identified in accordance with Clause 20, linked to its original bid marked as "TECHNICAL MODIFICATION" or "FINANCIAL MODIFICATION" and stamped "received" by the BAC. Bid modifications received after the applicable deadline shall not be considered and shall be returned to the Bidder unopened.

23.2. A Bidder may, through a Letter of Withdrawal, withdraw its bid after it has been submitted, for valid and justifiable reason; provided that the Letter of

Withdrawal is received by the Procuring Entity prior to the deadline prescribed for submission and receipt of bids. The Letter of Withdrawal must be executed by the authorized representative of the Bidder identified in the Omnibus Sworn Statement, a copy of which should be attached to the letter.

- 23.3. Bids requested to be withdrawn in accordance with **ITB** Clause 23.1 shall be returned unopened to the Bidders. A Bidder, who has acquired the bidding documents may also express its intention not to participate in the bidding through a letter which should reach and be stamped by the BAC before the deadline for submission and receipt of bids. A Bidder that withdraws its bid shall not be permitted to submit another bid, directly or indirectly, for the same contract.
- 23.4. No bid may be modified after the deadline for submission of bids. No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Financial Bid Form. Withdrawal of a bid during this interval shall result in the forfeiture of the Bidder's bid security, pursuant to **ITB** Clause 18.5, and the imposition of administrative, civil, and criminal sanctions as prescribed by RA 9184 and its IRR.

24. Opening and Preliminary Examination of Bids

- 24.1. The BAC shall open the Bids in public, immediately after the deadline for the submission and receipt of bids in public, as specified in the **BDS**. In case the Bids cannot be opened as scheduled due to justifiable reasons, the BAC shall take custody of the Bids submitted and reschedule the opening of Bids on the next working day or at the soonest possible time through the issuance of a Notice of Postponement to be posted in the PhilGEPS website and the website of the Procuring Entity concerned.
- 24.2. Unless otherwise specified in the BDS, the BAC shall open the first bid envelopes and determine each Bidder's compliance with the documents prescribed in ITB Clause 12, using a non-discretionary "pass/fail" criterion. If a Bidder submits the required document, it shall be rated "passed" for that particular requirement. In this regard, bids that fail to include any requirement or are incomplete or patently insufficient shall be considered as "failed". Otherwise, the BAC shall rate the said first bid envelope as "passed".
- 24.3. Unless otherwise specified in the **BDS**, immediately after determining compliance with the requirements in the first envelope, the BAC shall forthwith open the second bid envelope of each remaining eligible Bidder whose first bid envelope was rated "passed." The second envelope of each complying Bidder shall be opened within the same day. In case one or more of the requirements in the second envelope of a particular bid is missing, incomplete or patently insufficient, and/or if the submitted total bid price exceeds the ABC unless otherwise provided in **ITB** Clause 13.2, the BAC shall rate the bid concerned as "failed." Only bids that are determined to contain all the bid requirements for both components shall be rated "passed" and shall immediately be considered for evaluation and comparison.

- 24.4. Letters of Withdrawal shall be read out and recorded during bid opening, and the envelope containing the corresponding withdrawn bid shall be returned to the Bidder unopened.
- 24.5. All members of the BAC who are present during bid opening shall initial every page of the original copies of all bids received and opened.
- 24.6. In the case of an eligible foreign bidder as described in **ITB** Clause 5, the following Class “A” Documents may be substituted with the appropriate equivalent documents, if any, issued by the country of the foreign bidder concerned, which shall likewise be uploaded and maintained in the PhilGEPS in accordance with Section 8.5.2 of the IRR.:
- a) Registration certificate from the Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or CDA for cooperatives;
 - b) Mayor’s/Business permit issued by the local government where the principal place of business of the Bidder is located; and
 - c) Audited Financial Statements showing, among others, the prospective Bidder’s total and current assets and liabilities stamped “received” by the Bureau of Internal Revenue or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two years from the date of bid submission.
- 24.7. Each partner of a joint venture agreement shall likewise submit the document required in **ITB** Clause 12.1(a)(i). Submission of documents required under **ITB** Clauses 12.1(a)(ii) to 12.1(a)(iv) by any of the joint venture partners constitutes compliance.
- 24.8. The Procuring Entity shall prepare the minutes of the proceedings of the bid opening that shall include, as a minimum: (a) names of Bidders, their bid price (per lot, if applicable, and/or including discount, if any), bid security, findings of preliminary examination, and whether there is a withdrawal or modification; and (b) attendance sheet. The BAC members shall sign the abstract of bids as read.
- 24.8. The Bidders or their duly authorized representatives may attend the opening of bids. The BAC shall ensure the integrity, security, and confidentiality of all submitted bids. The Abstract of Bids as read and the minutes of the Bid Opening shall be made available to the public upon written request and payment of a specified fee to recover cost of materials.
- 24.9 To ensure transparency and accurate representation of the bid submission, the BAC Secretariat shall notify in writing all Bidders whose bids it has received through its PhilGEPS-registered physical address or official e-mail address. The notice shall be issued within seven (7) calendar days from the date of the bid opening.

E. Evaluation and Comparison of Bids

25. Process to be Confidential

- 25.1. Members of the BAC, including its staff and personnel, as well as its Secretariat and TWG, are prohibited from making or accepting any kind of communication with any Bidder regarding the evaluation of their bids until the issuance of the Notice of Award, unless otherwise allowed in the case of **ITB** Clause 26.
- 25.2. Any effort by a Bidder to influence the Procuring Entity in the Procuring Entity's decision in respect of bid evaluation, bid comparison or contract award will result in the rejection of the Bidder's bid.

26. Clarification of Bids

To assist in the evaluation, comparison and post-qualification of the bids, the Procuring Entity may ask in writing any Bidder for a clarification of its bid. All responses to requests for clarification shall be in writing. Any clarification submitted by a Bidder in respect to its bid and that is not in response to a request by the Procuring Entity shall not be considered

27. Detailed Evaluation and Comparison of Bids

- 27.1. The Procuring Entity will undertake the detailed evaluation and comparison of Bids which have passed the opening and preliminary examination of Bids, pursuant to **ITB** Clause 24, in order to determine the Lowest Calculated Bid.
- 27.2. The Lowest Calculated Bid shall be determined in two steps:
- (a) The detailed evaluation of the financial component of the bids, to establish the correct calculated prices of the bids; and
 - (b) The ranking of the total bid prices as so calculated from the lowest to highest. The bid with the lowest price shall be identified as the Lowest Calculated Bid.
- 27.3. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all bids rated "passed," using non-discretionary "pass/fail" criterion. The BAC shall consider the following in the evaluation of bids:
- (a) Completeness of the bid. Unless the **BDS** allows partial bids, bids not addressing or providing all of the required items in the Schedule of Requirements including, where applicable, bill of quantities, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the Procuring Entity, except those required by law or regulations to be provided for; and

- (b) Arithmetical corrections. Consider computational errors and omissions to enable proper comparison of all eligible bids. It may also consider bid modifications. Any adjustment shall be calculated in monetary terms to determine the calculated prices.
- 27.4. Based on the detailed evaluation of bids, those that comply with the above-mentioned requirements shall be ranked in the ascending order of their total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, to identify the Lowest Calculated Bid. Total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, which exceed the ABC shall not be considered, unless otherwise indicated in the **BDS**.
- 27.5. The Procuring Entity's evaluation of bids shall be based on the bid price quoted in the Bid Form, which includes the Bill of Quantities.
- 27.6. Bids shall be evaluated on an equal footing to ensure fair competition. For this purpose, all Bidders shall be required to include in their bids the cost of all taxes, such as, but not limited to, value added tax (VAT), income tax, local taxes, and other fiscal levies and duties which shall be itemized in the bid form and reflected in the detailed estimates. Such bids, including said taxes, shall be the basis for bid evaluation and comparison.
- 27.7. If so indicated pursuant to **ITB** Clause 1.2. Bids are being invited for individual lots or for any combination thereof, provided that all Bids and combinations of Bids 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 prices quoted shall correspond to all of the requirements specified for each lot. Bid Security as required by **ITB** Clause 18 shall be submitted for each contract (lot) separately. The basis for evaluation of lots is specified in **BDS** Clause 27.3.

28. Post Qualification

- 28.1. The BAC shall determine to its satisfaction whether the Bidder that is evaluated as having submitted the Lowest Calculated Bid complies with and is responsive to all the requirements and conditions specified in **ITB** Clauses 5, 12, and 13.
- 28.2. 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**.

Failure to submit any of the post-qualification requirements on time, or a finding against the veracity thereof, shall disqualify the Bidder for award. Provided in the event that a finding against the veracity of any of the documents submitted is made, it shall cause the forfeiture of the bid security in accordance with Section 69 of the IRR of RA 9184.

- 28.3. The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted pursuant to **ITB** Clauses 12 and 13, as well as other information as the Procuring Entity deems necessary and appropriate, using a non-discretionary "pass/fail" criterion, which shall be completed within a period of twelve (12) calendar days.
- 28.4. If the BAC determines that the Bidder with the Lowest Calculated Bid passes all the criteria for post-qualification, it shall declare the said bid as the LCRB, and recommend to the HoPE the award of contract to the said Bidder at its submitted price or its calculated bid price, whichever is lower, subject to **ITB** Clause 30.3.
- 28.5. A negative determination shall result in rejection of the Bidder's bid, in which event the Procuring Entity shall proceed to the next Lowest Calculated Bid, with a fresh period to make a similar determination of that Bidder's capabilities to perform satisfactorily. If the second Bidder, however, fails the post qualification, the procedure for post qualification shall be repeated for the Bidder with the next Lowest Calculated Bid, and so on until the LCRB is determined for recommendation of contract award.
- 28.6. Within a period not exceeding fifteen (15) calendar days from the determination by the BAC of the LCRB and the recommendation to award the contract, the HoPE or his duly authorized representative shall approve or disapprove the said recommendation.
- 28.7. In the event of disapproval, which shall be based on valid, reasonable, and justifiable grounds as provided for under Section 41 of the IRR of RA 9184, the HoPE shall notify the BAC and the Bidder in writing of such decision and the grounds for it. When applicable, the BAC shall conduct a post-qualification of the Bidder with the next Lowest Calculated Bid. A request for reconsideration may be filed by the Bidder with the HoPE in accordance with Section 37.1.3 of the IRR of RA 9184.

29. Reservation Clause

- 29.1. Notwithstanding the eligibility or post-qualification of a Bidder, the Procuring Entity concerned reserves the right to review its qualifications at any stage of the procurement process if it has reasonable grounds to believe that a misrepresentation has been made by the said Bidder, or that there has been a change in the Bidder's capability to undertake the project from the time it submitted its eligibility requirements. Should such review uncover any misrepresentation made in the eligibility and bidding requirements, statements or documents, or any changes in the situation of the Bidder which will affect its capability to undertake the project so that it fails the preset eligibility or bid evaluation criteria, the Procuring Entity shall consider the said Bidder as ineligible and shall disqualify it from submitting a bid or from obtaining an award or contract.
- 29.2. Based on the following grounds, the Procuring Entity reserves the right to reject any and all Bids, declare a Failure of Bidding at any time prior to the contract award, or not to award the contract, without thereby incurring any

liability, and make no assurance that a contract shall be entered into as a result of the bidding:

- (a) If there is *prima facie* evidence of collusion between appropriate public officers or employees of the Procuring Entity, or between the BAC and any of the Bidders, or if the collusion is between or among the Bidders themselves, or between a Bidder and a third party, including any act which restricts, suppresses or nullifies or tends to restrict, suppress or nullify competition;
- (b) If the Procuring Entity's BAC is found to have failed in following the prescribed bidding procedures; or
- (c) For any justifiable and reasonable ground where the award of the contract will not redound to the benefit of the GOP as follows:
 - (i) If the physical and economic conditions have significantly changed so as to render the project no longer economically, financially or technically feasible as determined by the HoPE;
 - (ii) If the project is no longer necessary as determined by the HoPE; and
 - (iii) If the source of funds for the project has been withheld or reduced through no fault of the Procuring Entity.

29.3. In addition, the Procuring Entity may likewise declare a failure of bidding when:

- (a) No bids are received;
- (b) All prospective Bidders are declared ineligible;
- (c) All bids fail to comply with all the bid requirements, fail post-qualification; or
- (d) The Bidder with the LCRB refuses, without justifiable cause, to accept the award of contract, and no award is made in accordance with Section 40 of the IRR of RA 9184.

F. Award of Contract

30. Contract Award

- 30.1. Subject to **ITB** Clause 28, the HoPE or its duly authorized representative shall award the contract to the Bidder whose bid has been determined to be the LCRB.
- 30.2. Prior to the expiration of the period of bid validity, the Procuring Entity shall notify the successful Bidder in writing that its bid has been accepted, through a Notice of Award duly received by the Bidder or its representative personally or by registered mail or electronically, receipt of which must be confirmed in

writing within two (2) days by the Bidder with the LCRB and submitted personally or sent by registered mail or electronically to the Procuring Entity.

- 30.3. Notwithstanding the issuance of the Notice of Award, award of contract shall be subject to the following conditions:
- (a) Submission of the following documents within ten (10) calendar days from receipt of the Notice of Award:
 - (i) In the case of procurement by a Philippine Foreign Service Office or Post, the PhilGEPS Registration Number of the winning foreign Bidder; or
 - (ii) Valid PCAB license and registration for the type and cost of the contract to be bid for foreign bidders when the Treaty or International or Executive Agreement expressly allows submission of the PCAB license and registration for the type and cost of the contract to be bid as a pre-condition to the Award;
 - (b) Posting of the performance security in accordance with **ITB** Clause 32;
 - (c) Signing of the contract as provided in **ITB** Clause 31; and
 - (d) Approval by higher authority, if required, as provided in Section 37.3 of the IRR of RA 9184.

31. Signing of the Contract

- 31.1. At the same time as the Procuring Entity notifies the successful Bidder that its bid has been accepted, the Procuring Entity shall send the Contract Form to the Bidder, which Contract has been provided in the Bidding Documents, incorporating therein all agreements between the parties.
- 31.2. Within ten (10) calendar days from receipt of the Notice of Award, the successful Bidder shall post the required performance security, sign and date the contract and return it to the Procuring Entity.
- 31.3. The Procuring Entity shall enter into contract with the successful Bidder within the same ten (10) calendar day period provided that all the documentary requirements are complied with.
- 31.4. The following documents shall form part of the contract:
- (a) Contract Agreement;
 - (b) Bidding Documents;
 - (c) Winning Bidder's bid, including the Technical and Financial Proposals, and all other documents/statements submitted (*e.g.*, Bidder's response to request for clarifications on the bid), including

corrections to the bid, if any, resulting from the Procuring Entity's bid evaluation;

- (d) Performance Security;
- (e) Notice of Award of Contract; and
- (f) Other contract documents that may be required by existing laws and/or specified in the **BDS**.

32. Performance Security

- 32.1. To guarantee the faithful performance by the winning Bidder of its obligations under the contract, it shall post a performance security within a maximum period of ten (10) calendar days from the receipt of the Notice of Award from the Procuring Entity and in no case later than the signing of the contract.
- 32.2. The Performance Security shall be denominated in Philippine Pesos and posted in favor of the Procuring Entity in an amount not less than the percentage of the total contract price in accordance with the following schedule:

Form of Performance Security	Amount of Performance Security (Not less than the Percentage of the Total Contract Price)
<p>(a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank.</p> <p><i>For biddings conducted by the LGUs, the Cashier's/Manager's Check may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i></p>	<p>Ten percent (10%)</p>
<p>(b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.</p> <p><i>For biddings conducted by the LGUs, Bank Draft/Guarantee, or Irrevocable Letter of Credit may be issued by other banks certified by the BSP as authorized to issue such</i></p>	

<i>financial instrument.</i>	
(c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.	Thirty percent (30%)

32.3. Failure of the successful Bidder to comply with the above-mentioned requirement shall constitute sufficient ground for the annulment of the award and forfeiture of the bid security, in which event the Procuring Entity shall have a fresh period to initiate and complete the post qualification of the second Lowest Calculated Bid. The procedure shall be repeated until LCRB is identified and selected for recommendation of contract award. However if no Bidder passed post-qualification, the BAC shall declare the bidding a failure and conduct a re-bidding with re-advertisement, if necessary.

33. Notice to Proceed

Within seven (7) calendar days from the date of approval of the Contract by the appropriate government approving authority, the Procuring Entity shall issue the Notice to Proceed (NTP) together with a copy or copies of the approved contract to the successful Bidder. All notices called for by the terms of the contract shall be effective only at the time of receipt thereof by the successful Bidder.

34. Protest Mechanism

Decision of the procuring entity at any stage of the procurement process may be questioned in accordance with Sections 55 of the IRR of RA 9184.

Section III. Bid Data Sheet

Bid Data Sheet

ITB Clause	
1.1	<p>The Procuring Entity is John Hay Management Corporation.</p> <p>The name of the Contract is Renovation of Four (4) Guard Houses at John Hay Special Economic Zone (JHSEZ).</p> <p>The identification number of the Contract is Infra-04-2018.</p>
2	<p>The Funding Source is:</p> <p>The Government of the Philippines (GoP) through its Corporate Budget for CY 2018 in the amount of Eight Hundred Ninety-Nine Thousand Eight Hundred Eight and 88/100 Pesos (PhP 899,808.88).</p> <p>The name of the Project is Renovation of Four (4) Guard Houses at John Hay Special Economic Zone (JHSEZ).</p>
3.1	No further instructions.
5.1	No further instructions.
5.2	Bidding is restricted to eligible bidders as defined in ITB Clause 5.1.
5.4(a)	No further instructions.
5.4(b)	For this purpose, similar contracts shall refer to contracts which have the same major categories of work. Similar Contracts shall be Renovation of structures.
8.1	“Subcontracting is not allowed.”
8.2	“Not applicable.”
9.1	The Procuring Entity will hold a pre-bid conference for this Project on 26 September 2018 at 10:00 AM. at the Bell House, JHSEZ, Baguio City.
10.1	<p>The Procuring Entity’s address is:</p> <p style="text-align: center;">John Hay Management Corporation Cottage 627 John Hay Special Economic Zone Baguio City Email address: bac@jhmc.com.ph</p>
10.4	No further instructions.
12.1	No further instructions.

12.1(a)(iii)	No further instructions.																		
12.1(b)(ii.2)	<p>The minimum work experience requirements for key personnel are the following:</p> <table border="1"> <thead> <tr> <th><u>Key Personnel</u></th> <th><u>General Experience</u></th> <th><u>Relevant Experience</u></th> </tr> </thead> <tbody> <tr> <td>1. Project Manager</td> <td>General Construction and Engineering</td> <td>Minimum of 5 years</td> </tr> <tr> <td>2. Civil Engineer / Architect</td> <td>General Construction and Engineering</td> <td>Minimum of 5 years</td> </tr> <tr> <td>3. Electrical Engineer</td> <td>General Construction and Engineering</td> <td>Minimum of 5 years</td> </tr> <tr> <td>4. Safety Officer</td> <td>General Construction and Engineering</td> <td>Minimum of 5 years</td> </tr> <tr> <td>5. Foreman</td> <td>General Construction and Engineering</td> <td>Minimum of 5 years</td> </tr> </tbody> </table>	<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>	1. Project Manager	General Construction and Engineering	Minimum of 5 years	2. Civil Engineer / Architect	General Construction and Engineering	Minimum of 5 years	3. Electrical Engineer	General Construction and Engineering	Minimum of 5 years	4. Safety Officer	General Construction and Engineering	Minimum of 5 years	5. Foreman	General Construction and Engineering	Minimum of 5 years
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13.1	“No additional Requirements”																		
13.1(b)	<p>This shall include all of the following documents:</p> <ol style="list-style-type: none"> 1) Bid prices in the Bill of Quantities; 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 quarter or payment schedule. 																		
13.2	The ABC is Eight Hundred Ninety-Nine Thousand Eight Hundred Eight and 88/100 Pesos (PhP 899,808.88) . Any bid with a financial component exceeding this amount shall not be accepted.																		
14.2	“No further instructions.”																		
15.4	No further instruction.																		
16.1	The bid prices shall be quoted in Philippine Pesos.																		

16.3	No further instructions.
17.1	Bids will be valid one hundred twenty (120) calendar days from the date of the opening of bids.
18.1	The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts: <ol style="list-style-type: none"> 1. The amount of not less than 2% of ABC, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; 2. The amount of not less than 5% of ABC if bid security is in Surety Bond.
18.2	The bid security shall be valid until one hundred twenty (120) calendar days from the date of the opening of bids.
20.3	Each Bidder shall submit one (1) original and two (2) photocopies of the first and second components of its bid.
21	The address for submission of bids is <p style="text-align: center;">John Hay Management Corporation Cottage 627 John Hay Special Economic Zone Telephone No: (074) 424-5424 Email address: bac@jhmc.com.ph</p> <p>The deadline for submission of bids is on 10 October 2018 at 9:00 AM.</p>
24.1	The place of bid opening is: <p>Bell House Camp John Hay Baguio City</p> <p>The date and time of bid opening is on 10 October 2018 at 10:00 AM.</p>
24.2	No further instructions.
24.3	No further instructions.
27.3	Partial bid is not allowed. The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.
27.4	No further instructions.
28.2	The winning bidder shall be required to secure the necessary permits from JHMC-SEZAD, and submit a Construction Environment Management Plan (CEMP) through the Project Management Division.

31.4(f)	<p>Construction schedule and S-curve, manpower schedule, construction methods, equipment utilization schedule.</p> <p>Construction safety and health program approved by the Department of Labor and Employment.</p> <p>The above- stated documents shall be submitted by the winning bidder prior to contract signing.</p>
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Section IV. General Conditions of Contract

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1. Definitions

For purposes of this Clause, boldface type is used to identify defined terms.

- 1.1. The **Arbiter** is the person appointed jointly by the Procuring Entity and the Contractor to resolve disputes in the first instance, as provided for in **GCC Clause 21**.
- 1.2. **Bill of Quantities** refers to a list of the specific items of the Work and their corresponding unit prices, lump sums, and/or provisional sums.
- 1.3. The **Completion Date** is the date of completion of the Works as certified by the Procuring Entity's Representative, in accordance with **GCC Clause 49**.
- 1.4. The **Contract** is the contract between the Procuring Entity and the Contractor to execute, complete, and maintain the Works.
- 1.5. The **Contract Effectivity Date** is the date of signing of the Contract. However, the contractor shall commence execution of the Works on the Start Date as defined in **GCC Clause 1.28**.
- 1.6. The **Contract Price** is the price stated in the Notice of Award and thereafter to be paid by the Procuring Entity to the Contractor for the execution of the Works in accordance with this Contract
- 1.7. **Contract Time Extension** is the allowable period for the Contractor to complete the Works in addition to the original Completion Date stated in this Contract.
- 1.8. The **Contractor** is the juridical entity whose proposal has been accepted by the Procuring Entity and to whom the Contract to execute the Work was awarded.
- 1.9. The **Contractor's Bid** is the signed offer or proposal submitted by the Contractor to the Procuring Entity in response to the Bidding Documents.
- 1.10. **Days** are calendar days; months are calendar months.
- 1.11. **Dayworks** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.
- 1.12. A **Defect** is any part of the Works not completed in accordance with the Contract.
- 1.13. The **Defects Liability Certificate** is the certificate issued by Procuring Entity's Representative upon correction of defects by the Contractor.
- 1.14. The **Defects Liability Period** is the one year period between contract completion and final acceptance within which the Contractor assumes the responsibility to undertake the repair of any damage to the Works at his own expense.

- 1.15 **Drawings** are graphical presentations of the Works. They include all supplementary details, shop drawings, calculations, and other information provided or approved for the execution of this Contract.
- 1.16 **Equipment** refers to all facilities, supplies, appliances, materials or things required for the execution and completion of the Work provided by the Contractor and which shall not form or are not intended to form part of the Permanent Works.
- 1.17 The **Intended Completion Date** refers to the date specified in the **SCC** when the Contractor is expected to have completed the Works. The Intended Completion Date may be revised only by the Procuring Entity's Representative by issuing an extension of time or an acceleration order.
- 1.18 **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- 1.19 The **Notice to Proceed** is a written notice issued by the Procuring Entity or the Procuring Entity's Representative to the Contractor requiring the latter to begin the commencement of the work not later than a specified or determinable date.
- 1.20 **Permanent Works** are all permanent structures and all other project features and facilities required to be constructed and completed in accordance with this Contract which shall be delivered to the Procuring Entity and which shall remain at the Site after the removal of all Temporary Works.
- 1.21 **Plant** refers to the machinery, apparatus, and the like intended to form an integral part of the Permanent Works.
- 1.22 The **Procuring Entity** is the party who employs the Contractor to carry out the Works stated in the **SCC**.
- 1.23 The **Procuring Entity's Representative** refers to the Head of the Procuring Entity or his duly authorized representative, identified in the **SCC**, who shall be responsible for supervising the execution of the Works and administering this Contract.
- 1.24 The **Site** is the place provided by the Procuring Entity where the Works shall be executed and any other place or places which may be designated in the **SCC**, or notified to the Contractor by the Procuring Entity's Representative as forming part of the Site.
- 1.25 **Site Investigation Reports** are those that were included in the Bidding Documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.
- 1.26 **Slippage** is a delay in work execution occurring when actual accomplishment falls below the target as measured by the difference between the scheduled and actual accomplishment of the Work by the Contractor as established from the work schedule. This is actually described as a percentage of the whole Works.

- 1.27 **Specifications** means the description of Works to be done and the qualities of materials to be used, the equipment to be installed and the mode of construction.
- 1.28 The **Start Date**, as specified in the **SCC**, is the date when the Contractor is obliged to commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.
- 1.29 A **Subcontractor** is any person or organization to whom a part of the Works has been subcontracted by the Contractor, as allowed by the Procuring Entity, but not any assignee of such person.
- 1.30 **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Permanent Works.
- 1.31 **Work(s)** refer to the Permanent Works and Temporary Works to be executed by the Contractor in accordance with this Contract, including (i) the furnishing of all labor, materials, equipment and others incidental, necessary or convenient to the complete execution of the Works; (ii) the passing of any tests before acceptance by the Procuring Entity's Representative; (iii) and the carrying out of all duties and obligations of the Contractor imposed by this Contract as described in the **SCC**.

2. Interpretation

- 2.1. In interpreting the Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of this Contract unless specifically defined. The Procuring Entity's Representative will provide instructions clarifying queries about the Conditions of Contract.
- 2.2. If sectional completion is specified in the **SCC**, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3. The documents forming this Contract shall be interpreted in the following order of priority:
- a) Contract Agreement;
 - b) Bid Data Sheet;
 - c) Instructions to Bidders;
 - d) Addenda to the Bidding Documents;
 - e) Special Conditions of Contract;
 - f) General Conditions of Contract;

- g) Specifications;
- h) Bill of Quantities; and
- i) Drawings.

3. Governing Language and Law

- 3.1. This Contract has been executed in the English language, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract. All correspondence and other documents pertaining to this Contract which are exchanged by the parties shall be written in English.
- 3.2. This Contract shall be interpreted in accordance with the laws of the Republic of the Philippines.

4. Communications

Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is received by the concerned party.

5. Possession of Site

- 5.1. On the date specified in the SCC, the Procuring Entity shall grant the Contractor possession of so much of the Site as may be required to enable it to proceed with 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.
- 5.2. If possession of a portion is not given by the date stated in the SCC Clause 5.1, 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 shall be in accordance with **GCC** Clause 47.
- 5.3. The Contractor shall bear all costs and charges for special or temporary right-of-way required by it in connection with access to the Site. The Contractor shall also provide at his own cost any additional facilities outside the Site required by it for purposes of the Works.
- 5.4. The Contractor shall allow the Procuring Entity's Representative and any person authorized by the Procuring Entity's Representative access to the Site and to any place where work in connection with this Contract is being carried out or is intended to be carried out.

6. The Contractor's Obligations

- 6.1. The Contractor shall carry out the Works properly and in accordance with this Contract. The Contractor shall provide all supervision, labor, Materials, Plant and Contractor's Equipment, which may be required. All Materials and Plant on Site shall be deemed to be the property of the Procuring Entity.
- 6.2. The Contractor shall commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program of Work submitted by the Contractor, as updated with the approval of the Procuring Entity's Representative, and complete them by the Intended Completion Date.
- 6.3. The Contractor shall be responsible for the safety of all activities on the Site.
- 6.4. The Contractor shall carry out all instructions of the Procuring Entity's Representative that comply with the applicable laws where the Site is located.
- 6.5. The Contractor shall employ the key personnel named in the Schedule of Key Personnel, as referred to in the SCC, 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.
- 6.6. If the Procuring Entity's Representative asks the Contractor to remove a member of the Contractor's staff or work force, for justifiable cause, the Contractor shall ensure that the person leaves the Site within seven (7) days and has no further connection with the Work in this Contract.
- 6.7. During Contract implementation, the Contractor and his subcontractors shall abide at all times by all labor laws, including child labor related enactments, and other relevant rules.
- 6.8. The Contractor shall submit to the Procuring Entity for consent the name and particulars of the person authorized to receive instructions on behalf of the Contractor.
- 6.9. The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Procuring Entity between the dates given in the schedule of other contractors particularly when they shall require access to the Site. The Contractor shall also provide facilities and services for them during this period. The Procuring Entity may modify the schedule of other contractors, and shall notify the Contractor of any such modification thereto.
- 6.10. Should anything of historical or other interest or of significant value be unexpectedly discovered on the Site, it shall be the property of the Procuring Entity. The Contractor shall notify the Procuring Entity's Representative of such discoveries and carry out the Procuring Entity's Representative's instructions in dealing with them.

7. Performance Security

- 7.1. 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 Contractor shall furnish the performance security in any of the forms prescribed in **ITB** Clause 32.2.

- 7.2. The performance security posted in favor of the Procuring Entity shall be forfeited in the event it is established that the Contractor is in default in any of its obligations under the Contract.
- 7.3. The performance security shall remain valid until issuance by the Procuring Entity of the Certificate of Final Acceptance.
- 7.4. The performance security may be released by the Procuring Entity and returned to the Contractor after the issuance of the Certificate of Final Acceptance subject to the following conditions:
 - (a) There are no pending claims against the Contractor or the surety company filed by the Procuring Entity;
 - (b) The Contractor has no pending claims for labor and materials filed against it; and
 - (c) Other terms specified in the **SCC**.
- 7.5. The Contractor shall post an additional performance security following the amount and form specified in **ITB** Clause 32.2 to cover any cumulative increase of more than ten percent (10%) over the original value of the contract as a result of amendments to order or change orders, extra work orders and supplemental agreements, as the case may be. The Contractor shall cause the extension of the validity of the performance security to cover approved contract time extensions.
- 7.6. In case of a reduction in the contract value or for partially completed Works under the contract which are usable and accepted by the Procuring Entity the use of which, in the judgment of the implementing agency or the Procuring Entity, will not affect the structural integrity of the entire project, the Procuring Entity shall allow a proportional reduction in the original performance security, provided that any such reduction is more than ten percent (10%) and that the aggregate of such reductions is not more than fifty percent (50%) of the original performance security.
- 7.7. Unless otherwise indicated in the **SCC**, the Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to Act 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.

8. Subcontracting

- 8.1. Unless otherwise indicated in the **SCC**, the Contractor cannot subcontract Works more than the percentage specified in **BDS** Clause 8.1.

- 8.2. Subcontracting of any portion of the Works does not relieve the Contractor of any liability or obligation under this Contract. The Contractor 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.
- 8.3. If subcontracting is allowed. The contractor may identify its subcontractor during contract implementation stage. Subcontractors disclosed and identified during the bidding may be changed during the implementation of this Contract. In either case, subcontractors must submit the documentary requirements under ITB Clause 12 and comply with the eligibility criteria specified in the **BDS**. In the event that any subcontractor is found by any Procuring Entity to be eligible, the subcontracting of such portion of the Works shall be disallowed.

9. Liquidated Damages

- 9.1. The Contractor shall pay liquidated damages to the Procuring Entity for each day that the Completion Date is later than the Intended Completion Date. The applicable liquidated damages is at least one-tenth (1/10) of a percent of the cost of the unperformed portion for every day of delay. The total amount of liquidated damages shall not exceed ten percent (10%) of the amount of the contract. The Procuring Entity may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities. Once the cumulative amount of liquidated damages reaches ten percent (10%) of the amount of this Contract, the Procuring Entity may rescind or terminate this Contract, without prejudice to other courses of action and remedies available under the circumstances.
- 9.2. If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer of the Procuring Entity shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate.

10. 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.

11. The Procuring Entity, Licenses and Permits

The Procuring Entity shall, if requested by the Contractor, assist him in applying for permits, licenses or approvals, which are required for the Works.

12. Contractor's Risk and Warranty Security

- 12.1. The Contractor shall assume full responsibility for the Works from the time project construction commenced up to final acceptance by the Procuring Entity and shall be held responsible for any damage or destruction of the Works except those occasioned by *force majeure*. The Contractor shall be fully responsible for the safety, protection, security, and convenience of his

personnel, third parties, and the public at large, as well as the Works, Equipment, installation, and the like to be affected by his construction work.

- 12.2. The defects liability period for infrastructure projects shall be one year from contract completion up to final acceptance by the Procuring Entity. During this period, the Contractor shall undertake the repair works, at his own expense, of any damage to the Works on account of the use of materials of inferior quality within ninety (90) days from the time the HoPE has issued an order to undertake repair. In case of failure or refusal to comply with this mandate, the Procuring Entity shall undertake such repair works and shall be entitled to full reimbursement of expenses incurred therein upon demand.
- 12.3. Unless otherwise indicated in the **SCC**, in case the Contractor fails to comply with the preceding paragraph, 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.
- 12.4. After final acceptance of the Works by the Procuring Entity, the Contractor shall be held responsible for “Structural Defects,” *i.e.*, major faults/flaws/deficiencies in one or more key structural elements of the project which may lead to structural failure of the completed elements or structure, or “Structural Failures,” *i.e.*, where one or more key structural elements in an infrastructure facility fails or collapses, thereby rendering the facility or part thereof incapable of withstanding the design loads, and/or endangering the safety of the users or the general public:
 - (a) Contractor – Where Structural Defects/Failures arise due to faults attributable to improper construction, use of inferior quality/substandard materials, and any violation of the contract plans and specifications, the contractor shall be held liable;
 - (b) Consultants – Where Structural Defects/Failures arise due to faulty and/or inadequate design and specifications as well as construction supervision, then the consultant who prepared the design or undertook construction supervision for the project shall be held liable;
 - (c) Procuring Entity’s Representatives/Project Manager/Construction Managers and Supervisors – The project owner’s representative(s), project manager, construction manager, and supervisor(s) shall be held liable in cases where the Structural Defects/Failures are due to his/their willful intervention in altering the designs and other specifications; negligence or omission in not approving or acting on proposed changes to noted defects or deficiencies in the design and/or specifications; and the use of substandard construction materials in the project;
 - (d) Third Parties - Third Parties shall be held liable in cases where Structural Defects/Failures are caused by work undertaken by them such as leaking pipes, diggings or excavations, underground cables and electrical wires, underground tunnel, mining shaft and the like, in

which case the applicable warranty to such structure should be levied to third parties for their construction or restoration works.

- (e) Users - In cases where Structural Defects/Failures are due to abuse/misuse by the end user of the constructed facility and/or non-compliance by a user with the technical design limits and/or intended purpose of the same, then the user concerned shall be held liable.

12.5. The warranty against Structural Defects/Failures, except those occasioned on force majeure, shall cover the period specified in the **SCC** reckoned from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity.

12.6. The Contractor shall be required to put up a warranty security in the form of cash, bank guarantee, letter of credit, GSIS or surety bond callable on demand, in accordance with the following schedule:

Form of Warranty	Amount of Warranty Security Not less than the Percentage (%) of Total Contract Price
(a) Cash or letter of credit issued by Universal or Commercial bank: provided, however, that the letter of credit shall be confirmed or authenticated by a Universal or Commercial bank, if issued by a foreign bank	Five Percent (5%)
(b) Bank guarantee confirmed by Universal or Commercial bank: provided, however, that the letter of credit shall be confirmed or authenticated by a Universal or Commercial bank, if issued by a foreign bank	Ten Percent (10%)
(c) Surety bond callable upon demand issued by GSIS or any surety or insurance company duly certified by the Insurance Commission	Thirty Percent (30%)

12.7. The warranty security shall be stated in Philippine Pesos and shall remain effective for one year from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity, and returned only after the lapse of said one year period.

12.8. In case of structural defects/failure occurring during the applicable warranty period provided in **GCC** Clause 12.5, the Procuring Entity shall undertake the necessary restoration or reconstruction works and shall be entitled to full reimbursement by the parties found to be liable for expenses incurred therein upon demand, without prejudice to the filing of appropriate administrative, civil, and/or criminal charges against the responsible persons as well as the forfeiture of the warranty security posted in favor of the Procuring Entity.

13. 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.

14. Procuring Entity's Risk

14.1. From the Start Date until the Certificate of Final Acceptance has been issued, the following are risks of the Procuring Entity:

- (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to:
 - (i) any type of use or occupation of the Site authorized by the Procuring Entity after the official acceptance of the works; or
 - (ii) negligence, breach of statutory duty, or interference with any legal right by the Procuring Entity or by any person employed by or contracted to him except the Contractor.
- (b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Procuring Entity or in the Procuring Entity's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

15. Insurance

15.1. The Contractor shall, under his name and at his own expense, obtain and maintain, for the duration of this Contract, the following insurance coverage:

- (a) Contractor's All Risk Insurance;
- (b) Transportation to the project Site of Equipment, Machinery, and Supplies owned by the Contractor;
- (c) Personal injury or death of Contractor's employees; and
- (d) Comprehensive insurance for third party liability to Contractor's direct or indirect act or omission causing damage to third persons.

15.2. The Contractor shall provide evidence to the Procuring Entity's Representative that the insurances required under this Contract have been effected and shall, within a reasonable time, provide copies of the insurance policies to the Procuring Entity's Representative. Such evidence and such policies shall be provided to the Procuring Entity's through the Procuring Entity's Representative.

15.3. The Contractor shall notify the insurers of changes in the nature, extent, or program for the execution of the Works and ensure the adequacy of the insurances at all times in accordance with the terms of this Contract and shall

produce to the Procuring Entity's Representative the insurance policies in force including the receipts for payment of the current premiums.

The above insurance policies shall be obtained from any reputable insurance company approved by the Procuring Entity's Representative.

- 15.4. If the Contractor fails to obtain and keep in force the insurances referred to herein or any other insurance which he may be required to obtain under the terms of this Contract, the Procuring Entity may obtain and keep in force any such insurances and pay such premiums as may be necessary for the purpose. From time to time, the Procuring Entity may deduct the amount it shall pay for said premiums including twenty five percent (25%) therein from any monies due, or which may become due, to the Contractor, without prejudice to the Procuring Entity exercising its right to impose other sanctions against the Contractor pursuant to the provisions of this Contract.
- 15.5. In the event the Contractor fails to observe the above safeguards, the Procuring Entity may, at the Contractor's expense, take whatever measure is deemed necessary for its protection and that of the Contractor's personnel and third parties, and/or order the interruption of dangerous Works. In addition, the Procuring Entity may refuse to make the payments under GCC Clause 40 until the Contractor complies with this Clause.
- 15.6. The Contractor shall immediately replace the insurance policy obtained as required in this Contract, without need of the Procuring Entity's demand, with a new policy issued by a new insurance company acceptable to the Procuring Entity for any of the following grounds:
 - (a) The issuer of the insurance policy to be replaced has:
 - (i) become bankrupt;
 - (ii) been placed under receivership or under a management committee;
 - (iii) been sued for suspension of payment; or
 - (iv) been suspended by the Insurance Commission and its license to engage in business or its authority to issue insurance policies cancelled; or
 - (v) Where reasonable grounds exist that the insurer may not be able, fully and promptly, to fulfill its obligation under the insurance policy.

16. Termination for Default of Contractor

- 16.1. The Procuring Entity shall terminate this Contract for default when any of the following conditions attend its implementation:
 - (i) Due to the Contractor's fault and while the project is on-going, it has incurred negative slippage of fifteen percent (15%) or more in

accordance with Presidential Decree 1870, regardless of whether or not previous warnings and notices have been issued for the Contractor to improve his performance;

- (ii) Due to its own fault and after this Contract time has expired, the Contractor incurs delay in the completion of the Work after this Contract has expired; or
- (iii) The Contractor:
 - (i) abandons the contract Works, refuses or fails to comply with a valid instruction of the Procuring Entity or fails to proceed expeditiously and without delay despite a written notice by the Procuring Entity;
 - (ii) does not actually have on the project Site the minimum essential equipment listed on the bid necessary to prosecute the Works in accordance with the approved Program of Work and equipment deployment schedule as required for the project;
 - (iii) does not execute the Works in accordance with this Contract or persistently or flagrantly neglects to carry out its obligations under this Contract;
 - (iv) neglects or refuses to remove materials or to perform a new Work that has been rejected as defective or unsuitable; or
 - (v) sub-lets any part of this Contract without approval by the Procuring Entity.

16.2. All materials on the Site, Plant, Works, including Equipment purchased and funded under the Contract shall be deemed to be the property of the Procuring Entity if this Contract is rescinded because of the Contractor's default.

17. Termination for Default of Procuring Entity

The Contractor may terminate this Contract with the Procuring Entity if the works are completely stopped for a continuous period of at least sixty (60) calendar days through no fault of its own, due to any of the following reasons:

- (a) Failure of the Procuring Entity to deliver, within a reasonable time, supplies, materials, right-of-way, or other items it is obligated to furnish under the terms of this Contract; or
- (b) The prosecution of the Work is disrupted by the adverse peace and order situation, as certified by the Armed Forces of the Philippines Provincial Commander and approved by the Secretary of National Defense.

18. Termination for Other Causes

18.1. The Procuring Entity may terminate this Contract, in whole or in part, at any time for its convenience. The HoPE may terminate this Contract for the

convenience of the Procuring Entity if he has determined the existence of conditions that make Project Implementation economically, financially or technically impractical and/or unnecessary, such as, but not limited to, fortuitous event(s) or changes in law and National Government policies.

18.2. The Procuring Entity or the Contractor may terminate this Contract if the other party causes a fundamental breach of this Contract.

18.3. Fundamental breaches of Contract shall include, but shall not be limited to, the following:

- (a) The Contractor stops work for twenty eight (28) days when no stoppage of work is shown on the current Program of Work and the stoppage has not been authorized by the Procuring Entity's Representative;
- (b) The Procuring Entity's Representative instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within twenty eight (28) days;
- (c) The Procuring Entity shall terminate this Contract if the Contractor is declared bankrupt or insolvent as determined with finality by a court of competent jurisdiction. In this event, termination will be without compensation to the Contractor, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Procuring Entity and/or the Contractor. In the case of the Contractor's insolvency, any Contractor's Equipment which the Procuring Entity instructs in the notice is to be used until the completion of the Works;
- (d) A payment certified by the Procuring Entity's Representative is not paid by the Procuring Entity to the Contractor within eighty four (84) days from the date of the Procuring Entity's Representative's certificate;
- (e) The Procuring Entity's Representative gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Procuring Entity's Representative;
- (f) The Contractor does not maintain a Security, which is required;
- (g) The Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the GCC Clause 9; and
- (h) 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, the following:

- (i) corrupt, fraudulent, collusive, coercive, and obstructive practices as defined in **ITB** Clause 3.1(a), unless otherwise specified in the SCC;
 - (ii) drawing up or using forged documents;
 - (iii) using adulterated materials, means or methods, or engaging in production contrary to rules of science or the trade; and
 - (iv) any other act analogous to the foregoing.
- 18.4. The Funding Source or the Procuring Entity, as appropriate, will seek to impose the maximum civil, administrative and/or criminal penalties available under the applicable law on individuals and organizations deemed to be involved with corrupt, fraudulent, or coercive practices.
- 18.5. When persons from either party to this Contract gives notice of a fundamental breach to the Procuring Entity's Representative in order to terminate the existing contract for a cause other than those listed under **GCC** Clause 18.3, the Procuring Entity's Representative shall decide whether the breach is fundamental or not.
- 18.6. If this Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

19. Procedures for Termination of Contracts

- 19.1. The following provisions shall govern the procedures for the termination of this Contract:
- (a) Upon receipt of a written report of acts or causes which may constitute ground(s) for termination as aforementioned, or upon its own initiative, the Procuring Entity shall, within a period of seven (7) calendar days, verify the existence of such ground(s) and cause the execution of a Verified Report, with all relevant evidence attached;
 - (b) Upon recommendation by the Procuring Entity, the HoPE shall terminate this Contract only by a written notice to the Contractor conveying the termination of this Contract. The notice shall state:
 - (i) that this Contract is being terminated for any of the ground(s) afore-mentioned, and a statement of the acts that constitute the ground(s) constituting the same;
 - (ii) the extent of termination, whether in whole or in part;
 - (iii) an instruction to the Contractor to show cause as to why this Contract should not be terminated; and
 - (iv) special instructions of the Procuring Entity, if any.

The Notice to Terminate shall be accompanied by a copy of the Verified Report;

- (c) Within a period of seven (7) calendar days from receipt of the Notice of Termination, the Contractor shall submit to the HoPE a verified position paper stating why the contract should not be terminated. If the Contractor fails to show cause after the lapse of the seven (7) day period, either by inaction or by default, the HoPE shall issue an order terminating the contract;
 - (d) The Procuring Entity may, at anytime before receipt of the Contractor's verified position paper described in item (c) above withdraw the Notice to Terminate if it is determined that certain items or works subject of the notice had been completed, delivered, or performed before the Contractor's receipt of the notice;
 - (e) Within a non-extendible period of ten (10) calendar days from receipt of the verified position paper, the HoPE shall decide whether or not to terminate this Contract. It shall serve a written notice to the Contractor of its decision and, unless otherwise provided in the said notice, this Contract is deemed terminated from receipt of the Contractor of the notice of decision. The termination shall only be based on the ground(s) stated in the Notice to Terminate; and
 - (f) The HoPE may create a Contract Termination Review Committee (CTRC) to assist him in the discharge of this function. All decisions recommended by the CTRC shall be subject to the approval of the HoPE.
- 19.2. Pursuant to Section 69(f) of RA 9184 and without prejudice to the imposition of additional administrative sanctions as the internal rules of the agency may provide and/or further criminal prosecution as provided by applicable laws, the procuring entity shall impose on contractors after the termination of the contract the penalty of suspension for one (1) year for the first offense, suspension for two (2) years for the second offense from participating in the public bidding process, for violations committed during the contract implementation stage, which include but not limited to the following:
- (a) Failure of the contractor, due solely to his fault or negligence, to mobilize and start work or performance within the specified period in the Notice to Proceed ("NTP");
 - (b) Failure by the contractor to fully and faithfully comply with its contractual obligations without valid cause, or failure by the contractor to comply with any written lawful instruction of the procuring entity or its representative(s) pursuant to the implementation of the contract. For the procurement of infrastructure projects or consultancy contracts, lawful instructions include but are not limited to the following:
 - (i) Employment of competent technical personnel, competent engineers and/or work supervisors;

- (ii) Provision of warning signs and barricades in accordance with approved plans and specifications and contract provisions;
 - (iii) Stockpiling in proper places of all materials and removal from the project site of waste and excess materials, including broken pavement and excavated debris in accordance with approved plans and specifications and contract provisions;
 - (iv) Deployment of committed equipment, facilities, support staff and manpower; and
 - (v) Renewal of the effectivity dates of the performance security after its expiration during the course of contract implementation.
- (c) Assignment and subcontracting of the contract or any part thereof or substitution of key personnel named in the proposal without prior written approval by the procuring entity.
- (d) Poor performance by the contractor or unsatisfactory quality and/or progress of work arising from his fault or negligence as reflected in the Constructor's Performance Evaluation System ("CPES") rating sheet. In the absence of the CPES rating sheet, the existing performance monitoring system of the procuring entity shall be applied. Any of the following acts by the Contractor shall be construed as poor performance:
- (i) Negative slippage of 15% and above within the critical path of the project due entirely to the fault or negligence of the contractor; and
 - (ii) Quality of materials and workmanship not complying with the approved specifications arising from the contractor's fault or negligence.
- (e) Willful or deliberate abandonment or non-performance of the project or contract by the contractor resulting to substantial breach thereof without lawful and/or just cause.

In addition to the penalty of suspension, the performance security posted by the contractor shall also be forfeited.

20. Force Majeure, Release From Performance

- 20.1. For purposes of this Contract the terms "*force majeure*" and "fortuitous event" may be used interchangeably. In this regard, a fortuitous event or *force majeure* shall be interpreted to mean an event which the Contractor could not have foreseen, or which though foreseen, was inevitable. It shall not include ordinary unfavorable weather conditions; and any other cause the effects of which could have been avoided with the exercise of reasonable diligence by the Contractor.

- 20.2. If this Contract is discontinued by an outbreak of war or by any other event entirely outside the control of either the Procuring Entity or the Contractor, the Procuring Entity's Representative shall certify that this Contract has been discontinued. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all works carried out before receiving it and for any Work carried out afterwards to which a commitment was made.
- 20.3. If the event continues for a period of eighty four (84) days, either party may then give notice of termination, which shall take effect twenty eight (28) days after the giving of the notice.
- 20.4. After termination, the Contractor shall be entitled to payment of the unpaid balance of the value of the Works executed and of the materials and Plant reasonably delivered to the Site, adjusted by the following:
- (a) any sum to which the Contractor is entitled under **GCC** Clause 28;
 - (b) the cost of his suspension and demobilization;
 - (c) any sum to which the Procuring Entity is entitled.
- 20.5. The net balance due shall be paid or repaid within a reasonable time period from the time of the notice of termination.

21. Resolution of Disputes

- 21.1. If any dispute or difference of any kind whatsoever shall arise between the parties in connection with the implementation of the contract covered by the Act and this IRR, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
- 21.2. If the Contractor believes that a decision taken by the Procuring Entity's Representative was either outside the authority given to the Procuring Entity's Representative by this Contract or that the decision was wrongly taken, the decision shall be referred to the Arbiter indicated in the **SCC** within fourteen (14) days of the notification of the Procuring Entity's Representative's decision.
- 21.3. Any and all disputes arising from the implementation of this Contract covered by the R.A. 9184 and its IRR shall be submitted to arbitration in the Philippines according to the provisions of Republic Act No. 876, otherwise known as the "Arbitration Law" and Republic Act 9285, otherwise known as the "Alternative Dispute Resolution Act of 2004": *Provided, however, That, disputes that are within the competence of the Construction Industry Arbitration Commission to resolve shall be referred thereto. The process of arbitration shall be incorporated as a provision in this Contract that will be executed pursuant to the provisions of the Act and its IRR: Provided, further, That, by mutual agreement, the parties may agree in writing to resort to other alternative modes of dispute resolution.*

22. Suspension of Loan, Credit, Grant, or Appropriation

In the event that the Funding Source suspends the Loan, Credit, Grant, or Appropriation to the Procuring Entity, from which part of the payments to the Contractor are being made:

- (a) The Procuring Entity is obligated to notify the Contractor of such suspension within seven (7) days of having received the suspension notice.
- (b) If the Contractor has not received sums due it for work already done within forty five (45) days from the time the Contractor's claim for payment has been certified by the Procuring Entity's Representative, the Contractor may immediately issue a suspension of work notice in accordance with GCC Clause 45.2.

23. Procuring Entity's Representative's Decisions

23.1. Except where otherwise specifically stated, the Procuring Entity's Representative will decide contractual matters between the Procuring Entity and the Contractor in the role representing the Procuring Entity.

23.2. The Procuring Entity's Representative may delegate any of his duties and responsibilities to other people, except to the Arbiter, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

24. Approval of Drawings and Temporary Works by the Procuring Entity's Representative

24.1. All Drawings prepared by the Contractor for the execution of the Temporary Works, are subject to prior approval by the Procuring Entity's Representative before its use.

24.2. The Contractor shall be responsible for design of Temporary Works.

24.3. The Procuring Entity's Representative's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

24.4. The Contractor shall obtain approval of third parties to the design of the Temporary Works, when required by the Procuring Entity.

25. Acceleration and Delays Ordered by the Procuring Entity's Representative

25.1. When the Procuring Entity wants the Contractor to finish before the Intended Completion Date, the Procuring Entity's Representative will obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Procuring Entity accepts these proposals, the Intended Completion Date will be adjusted accordingly and confirmed by both the Procuring Entity and the Contractor.

- 25.2. If the Contractor's Financial Proposals for an acceleration are accepted by the Procuring Entity, they are incorporated in the Contract Price and treated as a Variation.

26. Extension of the Intended Completion Date

- 26.1. The Procuring Entity's Representative shall extend the Intended Completion Date if a Variation is issued which makes it impossible for the Intended Completion Date to be achieved by the Contractor without taking steps to accelerate the remaining work, which would cause the Contractor to incur additional costs. No payment shall be made for any event which may warrant the extension of the Intended Completion Date.
- 26.2. The Procuring Entity's Representative shall decide whether and by how much to extend the Intended Completion Date within twenty one (21) days of the Contractor asking the Procuring Entity's Representative for a decision thereto after fully submitting all supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

27. Right to Vary

- 27.1. The Procuring Entity's Representative with the prior approval of the Procuring Entity may instruct Variations, up to a maximum cumulative amount of ten percent (10%) of the original contract cost.
- 27.2. Variations shall be valued as follows:
- (a) At a lump sum price agreed between the parties;
 - (b) where appropriate, at rates in this Contract;
 - (c) in the absence of appropriate rates, the rates in this Contract shall be used as the basis for valuation; or failing which
 - (d) at appropriate new rates, equal to or lower than current industry rates and to be agreed upon by both parties and approved by the HoPE.

28. Contractor's Right to Claim

If the Contractor incurs cost as a result of any of the events under **GCC** Clause 13, the Contractor shall be entitled to the amount of such cost. If as a result of any of the said events, it is necessary to change the Works, this shall be dealt with as a Variation.

29. Dayworks

- 29.1. Subject to **GCC** Clause 43 on Variation Order, 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.

- 29.2. All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Procuring Entity's Representative. Each completed form shall be verified and signed by the Procuring Entity's Representative within two days of the work being done.
- 29.3. The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

30. Early Warning

- 30.1. The Contractor shall warn the Procuring Entity's Representative at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Procuring Entity's Representative may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.
- 30.2. The Contractor shall cooperate with the Procuring Entity's Representative in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Procuring Entity's Representative.

31. Program of Work

- 31.1. Within the time stated in the **SCC**, the Contractor shall submit to the Procuring Entity's Representative for approval a Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works.
- 31.2. An update of the Program of Work shall show the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
- 31.3. 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.
- 31.4. The Procuring Entity's Representative's approval of the Program of Work shall not alter the Contractor's obligations. The Contractor may revise the Program of Work and submit it to the Procuring Entity's Representative again at any time. A revised Program of Work shall show the effect of any approved Variations.

- 31.5. When the Program of Work is updated, the Contractor shall provide the Procuring Entity's Representative with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.
- 31.6. All Variations shall be included in updated Program of Work produced by the Contractor.

32. Management Conferences

- 32.1. Either the Procuring Entity's Representative or the Contractor may require the other to attend a Management Conference. The Management Conference shall review the plans for remaining work and deal with matters raised in accordance with the early warning procedure.
- 32.2. The Procuring Entity's Representative shall record the business of Management Conferences and provide copies of the record to those attending the Conference and to the Procuring Entity. The responsibility of the parties for actions to be taken shall be decided by the Procuring Entity's Representative either at the Management Conference or after the Management Conference and stated in writing to all who attended the Conference.

33. Bill of Quantities

- 33.1. The Bill of Quantities shall contain items of work for the construction, installation, testing, and commissioning of work to be done by the Contractor.
- 33.2. The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.
- 33.3. If the final quantity of any work done differs from the quantity in the Bill of Quantities for the particular item and is not more than twenty five percent (25%) of the original quantity, provided the aggregate changes for all items do not exceed ten percent (10%) of the Contract price, the Procuring Entity's Representative shall make the necessary adjustments to allow for the changes subject to applicable laws, rules, and regulations.
- 33.4. If requested by the Procuring Entity's Representative, the Contractor shall provide the Procuring Entity's Representative with a detailed cost breakdown of any rate in the Bill of Quantities.

34. Instructions, Inspections and Audits

- 34.1. The Procuring Entity's personnel shall at all reasonable times during construction of the Work be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of the construction.
- 34.2. If the Procuring Entity's Representative instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a defect

and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no defect, the test shall be a Compensation Event.

- 34.3. The Contractor shall permit the Funding Source named in the **SCC** to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Funding Source, if so required by the Funding Source.

35. Identifying Defects

The Procuring Entity's Representative shall check the Contractor's work and notify the Contractor of any defects that are found. Such checking shall not affect the Contractor's responsibilities. The Procuring Entity's Representative may instruct the Contractor to search uncover defects and test any work that the Procuring Entity's Representative considers below standards and defective.

36. Cost of Repairs

Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Liability Periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

37. Correction of Defects

- 37.1. The Procuring Entity's Representative shall give notice to the Contractor of any defects before the end of the Defects Liability Period, which is One (1) year from project completion up to final acceptance by the Procuring Entity's Representative.
- 37.2. Every time notice of a defect is given, the Contractor shall correct the notified defect within the length of time specified in the Procuring Entity's Representative's notice.
- 37.3. The Contractor shall correct the defects which he notices himself before the end of the Defects Liability Period.
- 37.4. The Procuring Entity shall certify that all defects have been corrected. If the Procuring Entity considers that correction of a defect is not essential, he can request the Contractor to submit a quotation for the corresponding reduction in the Contract Price. If the Procuring Entity accepts the quotation, the corresponding change in the SCC is a Variation.

38. Uncorrected Defects

- 38.1. The Procuring Entity shall give the Contractor at least fourteen (14) days notice of his intention to use a third party to correct a Defect. If the Contractor does not correct the Defect himself within the period, the Procuring Entity may have the Defect corrected by the third party. The cost of the correction will be deducted from the Contract Price.

- 38.2. The use of a third party to correct defects that are uncorrected by the Contractor will in no way relieve the Contractor of its liabilities and warranties under the Contract.

39. Advance Payment

- 39.1. 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.
- 39.2. The advance payment shall be made only upon the submission to and acceptance by the Procuring Entity of an irrevocable standby letter of credit of equivalent value from a commercial bank, a bank guarantee or a surety bond callable upon demand, issued by a surety or insurance company duly licensed by the Insurance Commission and confirmed by the Procuring Entity.
- 39.3. The advance payment shall be repaid by the Contractor by an amount equal to the percentage of the total contract price used for the advance payment.
- 39.4. The contractor may reduce his standby letter of credit or guarantee instrument by the amounts refunded by the Monthly Certificates in the advance payment.
- 39.5. The Procuring Entity will provide an Advance Payment on the Contract Price as stipulated in the Conditions of Contract, subject to the maximum amount stated in **SCC** Clause 39.1.

40. Progress Payments

- 40.1. The Contractor may submit a request for payment for Work accomplished. Such request 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.
- 40.2. The Procuring Entity shall deduct the following from the certified gross amounts to be paid to the contractor as progress payment:
- (a) Cumulative value of the work previously certified and paid for.
 - (b) Portion of the advance payment to be recouped for the month.
 - (c) Retention money in accordance with the condition of contract.
 - (d) Amount to cover third party liabilities.
 - (e) Amount to cover uncorrected discovered defects in the works.
- 40.3. Payments shall be adjusted by deducting therefrom the amounts for advance payments and retention. The Procuring Entity shall pay the Contractor the amounts certified by the Procuring Entity's Representative within twenty eight

(28) days from the date each certificate was issued. No payment of interest for delayed payments and adjustments shall be made by the Procuring Entity.

- 40.4. The first progress payment may be paid by the Procuring Entity to the Contractor provided that at least twenty percent (20%) of the work has been accomplished as certified by the Procuring Entity's Representative.
- 40.5. Items of the Works for which a price of "0" (zero) has been entered will not be paid for by the Procuring Entity and shall be deemed covered by other rates and prices in the Contract.

41. Payment Certificates

- 41.1. The Contractor shall submit to the Procuring Entity's Representative monthly statements of the estimated value of the work executed less the cumulative amount certified previously.
- 41.2. The Procuring Entity's Representative shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
- 41.3. The value of Work executed shall:
 - (a) be determined by the Procuring Entity's Representative;
 - (b) comprise the value of the quantities of the items in the Bill of Quantities completed; and
 - (c) include the valuations of approved variations.
- 41.4. The Procuring Entity's Representative may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

42. Retention

- 42.1. The Procuring Entity shall retain from each payment due to the Contractor an amount equal to a percentage thereof using the rate as specified in GCC Sub-Clause 42.2.
- 42.2. Progress payments are subject to retention of ten percent (10%), referred to as the "retention money." Such retention shall be based on the total amount due to the Contractor prior to any deduction and shall be retained from every progress payment until fifty percent (50%) of the value of Works, as determined by the Procuring Entity, are completed. If, after fifty percent (50%) completion, the Work is satisfactorily done and on schedule, no additional retention shall be made; otherwise, the ten percent (10%) retention shall again be imposed using the rate specified therefor.
- 42.3. The total "retention money" shall be due for release upon final acceptance of the Works. The Contractor may, however, request the substitution of the retention money for each progress billing with irrevocable standby letters of credit from a commercial bank, bank guarantees or surety bonds callable on

demand, of amounts equivalent to the retention money substituted for and acceptable to the Procuring Entity, provided that the project is on schedule and is satisfactorily undertaken. Otherwise, the ten (10%) percent retention shall be made. Said irrevocable standby letters of credit, bank guarantees and/or surety bonds, to be posted in favor of the Government shall be valid for a duration to be determined by the concerned implementing office/agency or Procuring Entity and will answer for the purpose for which the ten (10%) percent retention is intended, *i.e.*, to cover uncorrected discovered defects and third party liabilities.

- 42.4. On completion of the whole Works, the Contractor may substitute retention money with an “on demand” Bank guarantee in a form acceptable to the Procuring Entity.

43. Variation Orders

- 43.1. Variation Orders may be issued by the Procuring Entity to cover any increase/decrease in quantities, including the introduction of new work items that are not included in the original contract or reclassification of work items that are either due to change of plans, design or alignment to suit actual field conditions resulting in disparity between the preconstruction plans used for purposes of bidding and the “as staked plans” or construction drawings prepared after a joint survey by the Contractor and the Procuring Entity after award of the contract, provided that the cumulative amount of the Variation Order does not exceed ten percent (10%) of the original project cost. The addition/deletion of Works should be within the general scope of the project as bid and awarded. The scope of works shall not be reduced so as to accommodate a positive Variation Order. A Variation Order may either be in the form of a Change Order or Extra Work Order.
- 43.2. A Change Order may be issued by the Procuring Entity to cover any increase/decrease in quantities of original Work items in the contract.
- 43.3. An Extra Work Order may be issued by the Procuring Entity to cover the introduction of new work necessary for the completion, improvement or protection of the project which were not included as items of Work in the original contract, such as, where there are subsurface or latent physical conditions at the site differing materially from those indicated in the contract, or where there are duly unknown physical conditions at the site of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the Work or character provided for in the contract.
- 43.4. Any cumulative Variation Order beyond ten percent (10%) shall be subject of another contract to be bid out if the works are separable from the original contract. In exceptional cases where it is urgently necessary to complete the original scope of work, the HoPE may authorize a positive Variation Order go beyond ten percent (10%) but not more than twenty percent (20%) of the original contract price, subject to the guidelines to be determined by the GPPB: *Provided, however,* That appropriate sanctions shall be imposed on the designer, consultant or official responsible for the original detailed

engineering design which failed to consider the Variation Order beyond ten percent (10%).

43.5. In claiming for any Variation Order, the Contractor shall, within seven (7) calendar days after such work has been commenced or after the circumstances leading to such condition(s) leading to the extra cost, and within twenty-eight (28) calendar days deliver a written communication giving full and detailed particulars of any extra cost in order that it may be investigated at that time. Failure to provide either of such notices in the time stipulated shall constitute a waiver by the contractor for any claim. The preparation and submission of Variation Orders are as follows:

- (a) If the Procuring Entity's representative/Project Engineer believes that a Change Order or Extra Work Order should be issued, he shall prepare the proposed Order accompanied with the notices submitted by the Contractor, the plans therefore, his computations as to the quantities of the additional works involved per item indicating the specific stations where such works are needed, the date of his inspections and investigations thereon, and the log book thereof, and a detailed estimate of the unit cost of such items of work, together with his justifications for the need of such Change Order or Extra Work Order, and shall submit the same to the HoPE for approval.
- (b) The HoPE or his duly authorized representative, upon receipt of the proposed Change Order or Extra Work Order shall immediately instruct the appropriate technical staff or office of the Procuring Entity to conduct an on-the-spot investigation to verify the need for the Work to be prosecuted and to review the proposed plan, and prices of the work involved.
- (c) The technical staff or appropriate office of the Procuring Entity shall submit a report of their findings and recommendations, together with the supporting documents, to the Head of Procuring Entity or his duly authorized representative for consideration.
- (d) The HoPE or his duly authorized representative, acting upon the recommendation of the technical staff or appropriate office, shall approve the Change Order or Extra Work Order after being satisfied that the same is justified, necessary, and in order.
- (e) The timeframe for the processing of Variation Orders from the preparation up to the approval by the Procuring Entity concerned shall not exceed thirty (30) calendar days.

44. Contract Completion

Once the project reaches an accomplishment of ninety five (95%) of the total contract amount, the Procuring Entity may create an inspectorate team to make preliminary inspection and submit a punch-list to the Contractor in preparation for the final turnover of the project. Said punch-list will contain, among others, the remaining Works, Work deficiencies for necessary corrections, and the specific duration/time to

fully complete the project considering the approved remaining contract time. This, however, shall not preclude the claim of the Procuring Entity for liquidated damages.

45. Suspension of Work

- 45.1. The Procuring Entity shall have the authority to suspend the work wholly or partly by written order for such period as may be deemed necessary, due to *force majeure* or any fortuitous events or for failure on the part of the Contractor to correct bad conditions which are unsafe for workers or for the general public, to carry out valid orders given by the Procuring Entity or to perform any provisions of the contract, or due to adjustment of plans to suit field conditions as found necessary during construction. The Contractor shall immediately comply with such order to suspend the work wholly or partly.
- 45.2. The Contractor or its duly authorized representative shall have the right to suspend work operation on any or all projects/activities along the critical path of activities after fifteen (15) calendar days from date of receipt of written notice from the Contractor to the district engineer/regional director/consultant or equivalent official, as the case may be, due to the following:
- (a) There exist right-of-way problems which prohibit the Contractor from performing work in accordance with the approved construction schedule.
 - (b) Requisite construction plans which must be owner-furnished are not issued to the contractor precluding any work called for by such plans.
 - (c) Peace and order conditions make it extremely dangerous, if not possible, to work. However, this condition must be certified in writing by the Philippine National Police (PNP) station which has responsibility over the affected area and confirmed by the Department of Interior and Local Government (DILG) Regional Director.
 - (d) There is failure on the part of the Procuring Entity to deliver government-furnished materials and equipment as stipulated in the contract.
 - (e) Delay in the payment of Contractor's claim for progress billing beyond forty-five (45) calendar days from the time the Contractor's claim has been certified to by the procuring entity's authorized representative that the documents are complete unless there are justifiable reasons thereof which shall be communicated in writing to the Contractor.
- 45.3. In case of total suspension, or suspension of activities along the critical path, which is not due to any fault of the Contractor, the elapsed time between the effectivity of the order suspending operation and the order to resume work shall be allowed the Contractor by adjusting the contract time accordingly.

46. Payment on Termination

- 46.1. If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Procuring Entity's Representative shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the SCC. Additional Liquidated Damages shall not apply. If the total amount due to the Procuring Entity exceeds any payment due to the Contractor, the difference shall be a debt payable to the Procuring Entity.
- 46.2. If the Contract is terminated for the Procuring Entity's convenience or because of a fundamental breach of Contract by the Procuring Entity, the Procuring Entity's Representative shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.
- 46.3. The net balance due shall be paid or repaid within twenty eight (28) days from the notice of termination.
- 46.4. If the Contractor has terminated the Contract under GCC Clauses 17 or 18, the Procuring Entity shall promptly return the Performance Security to the Contractor.

47. Extension of Contract Time

- 47.1. Should the amount of additional work of any kind or other special circumstances of any kind whatsoever occur such as to fairly entitle the contractor to an extension of contract time, the Procuring Entity shall determine the amount of such extension; provided that the Procuring Entity is not bound to take into account any claim for an extension of time unless the Contractor has, prior to the expiration of the contract time and within thirty (30) calendar days after such work has been commenced or after the circumstances leading to such claim have arisen, delivered to the Procuring Entity notices in order that it could have investigated them at that time. Failure to provide such notice shall constitute a waiver by the Contractor of any claim. Upon receipt of full and detailed particulars, the Procuring Entity shall examine the facts and extent of the delay and shall extend the contract time completing the contract work when, in the Procuring Entity's opinion, the findings of facts justify an extension.
- 47.2. No extension of contract time shall be granted the Contractor due to (a) ordinary unfavorable weather conditions and (b) inexcusable failure or negligence of Contractor to provide the required equipment, supplies or materials.
- 47.3. Extension of contract time may be granted only when the affected activities fall within the critical path of the PERT/CPM network.
- 47.4. No extension of contract time shall be granted when the reason given to support the request for extension was already considered in the determination

of the original contract time during the conduct of detailed engineering and in the preparation of the contract documents as agreed upon by the parties before contract perfection.

47.5. Extension of contract time shall be granted for rainy/unworkable days considered unfavorable for the prosecution of the works at the site, based on the actual conditions obtained at the site, in excess of the number of rainy/unworkable days pre-determined by the Procuring Entity in relation to the original contract time during the conduct of detailed engineering and in the preparation of the contract documents as agreed upon by the parties before contract perfection, and/or for equivalent period of delay due to major calamities such as exceptionally destructive typhoons, floods and earthquakes, and epidemics, and for causes such as non-delivery on time of materials, working drawings, or written information to be furnished by the Procuring Entity, non-acquisition of permit to enter private properties or non-execution of deed of sale or donation within the right-of-way resulting in complete paralyzation of construction activities, and other meritorious causes as determined by the Procuring Entity's Representative and approved by the HoPE. Shortage of construction materials, general labor strikes, and peace and order problems that disrupt construction operations through no fault of the Contractor may be considered as additional grounds for extension of contract time provided they are publicly felt and certified by appropriate government agencies such as DTI, DOLE, DILG, and DND, among others. The written consent of bondsmen must be attached to any request of the Contractor for extension of contract time and submitted to the Procuring Entity for consideration and the validity of the Performance Security shall be correspondingly extended.

48. Price Adjustment

Except for extraordinary circumstances as determined by NEDA and approved by the GPPB, no price escalation shall be allowed. Nevertheless, in cases where the cost of the awarded contract is affected by any applicable new laws, ordinances, regulations, or other acts of the GoP, promulgated after the date of bid opening, a contract price adjustment shall be made or appropriate relief shall be applied on a no loss-no gain basis.

49. Completion

The Contractor shall request the Procuring Entity's Representative to issue a certificate of Completion of the Works, and the Procuring Entity's Representative will do so upon deciding that the work is completed.

50. Taking Over

The Procuring Entity shall take over the Site and the Works within seven (7) days from the date the Procuring Entity's Representative issues a certificate of Completion.

51. Operating and Maintenance Manuals

- 51.1. If “as built” Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the **SCC**.
- 51.2. If the Contractor does not supply the Drawings and/or manuals by the dates stated in the **SCC**, or they do not receive the Procuring Entity’s Representative’s approval, the Procuring Entity’s Representative shall withhold the amount stated in the **SCC** from payments due to the Contractor.

Section V. Special Conditions of Contract

Special Conditions of Contract

GCC Clause																			
1.17	<p>The Intended Completion of the Project shall be within 34 Calendar Days</p> <p><i>NOTE: The contract duration shall be reckoned from the start date and not from contract effectivity date.</i></p>																		
1.22	<p>The Procuring Entity is John Hay Management Corporation with address at:</p> <p>John Hay Management Corporation Office Complex John Hay Special Economic Zone Baguio City</p>																		
1.23	<p>The Procuring Entity's Representative is ALLAN R. GARCIA, President and CEO.</p>																		
1.24	<p>The Site is located at the John Hay Special Economic Zone, Baguio City as attached herewith</p>																		
1.28	<p>The Start Date is upon receipt by the successful bidder of the Notice To Proceed.</p>																		
1.31	<p>The Works consists of:</p> <ol style="list-style-type: none"> 1. Demolition of the existing guard houses; and 2. Renovation of the guard houses. 																		
5.1	<p>The Procuring Entity shall give possession of all parts of the Site to the Contractor upon receipt by the successful bidder of the Notice To Proceed.</p>																		
6.5	<p>The Contractor shall employ the following Key Personnel:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Key Personnel</u></th> <th style="text-align: left;"><u>General Experience</u></th> <th style="text-align: left;"><u>Relevant Experience</u></th> </tr> </thead> <tbody> <tr> <td>1. Project Manager</td> <td>General Construction and Engineering</td> <td>Minimum of 5 years</td> </tr> <tr> <td>2. Civil Engineer / Architect</td> <td>General Construction and Engineering</td> <td>Minimum of 5 years</td> </tr> <tr> <td>3. Electrical Engineer</td> <td>General Construction and Engineering</td> <td>Minimum of 5 years</td> </tr> <tr> <td>4. Safety Officer</td> <td>General Construction and Engineering</td> <td>Minimum of 5 years</td> </tr> <tr> <td>5. Foreman</td> <td>General Construction and Engineering</td> <td>Minimum of 5 years</td> </tr> </tbody> </table> <p><i>NOTE: The names of the Key Personnel and their designation shall be filled out by winning contractor prior to contract signing.</i></p>	<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>	1. Project Manager	General Construction and Engineering	Minimum of 5 years	2. Civil Engineer / Architect	General Construction and Engineering	Minimum of 5 years	3. Electrical Engineer	General Construction and Engineering	Minimum of 5 years	4. Safety Officer	General Construction and Engineering	Minimum of 5 years	5. Foreman	General Construction and Engineering	Minimum of 5 years
<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>																	
1. Project Manager	General Construction and Engineering	Minimum of 5 years																	
2. Civil Engineer / Architect	General Construction and Engineering	Minimum of 5 years																	
3. Electrical Engineer	General Construction and Engineering	Minimum of 5 years																	
4. Safety Officer	General Construction and Engineering	Minimum of 5 years																	
5. Foreman	General Construction and Engineering	Minimum of 5 years																	

7.4(c)	No further instructions.
7.7	No further instructions.
8.1	No further instructions.
10	No site investigation reports available. However, a site inspection with all prospective bidders will be conducted immediately after the Pre-bid Conference.
12.3	No further instructions.
12.5	Warranty against Structural Defects/Failures, except those occasioned on force majeure, reckoned from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity shall be Five (5) years.
13	For JVA, All partners to the joint venture shall be jointly and severally liable to the Procuring Entity
18.3(h)(i)	No further instructions.
21.2	The Arbiter is: Construction Industry Authority of the Philippines (CIAP) 4th Floor, Jupiter Building, No. 56 Jupiter Street, Bel-Air, Makati City
29.1	Dayworks are applicable at the rate shown in the Contractor's original Bid.
31.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within three (3) calendar days of delivery of the Notice of Award, if there are any changes thereto.
31.3	The period between Program of Work updates (Statement of Work Accomplished) is 14 Calendar Days. The amount to be withheld for late submission of updates on Program of Work shall be at least equal to one-tenth of one percent (0.001) of the financial accomplishment at the time of its submission but in no case shall it be higher than two thousand pesos (PhP 2,000.00).
34.3	The Funding Source is the Government of the Philippines.
39.1	The amount of the advance payment is not more than 15% of the contract price.
40.1	No further instructions
51.1	The date by which "as built" drawings (in A3 Sheet and dwg file) are required is within 15 calendar days prior to the issuance of the Certificate of Inspection and Completion.
51.2	The amount to be withheld for failure by the winning bidder to produce "as built" drawings and/or operating and maintenance manuals shall be at least equal to one-tenth of one percent (0.001) of the financial accomplishment at the time of its submission but in no case shall it be higher than two thousand pesos (PhP 2,000.00).

Section VI. Specifications

PROJECT SPECIFICATIONS

REHABILITATION of GUARDHOUSES

1. SCOPE OF WORK FOR BIDDERS

- 1.1 To provide the infrastructure required for REHABILITATION of GUARDHOUSE located at Area 1, Ayala Gate Area, BCDA Cottages, and Camper 2 JHMC Complex.
- 1.2 To conduct site visits to familiarize with the on-site conditions and existing facilities.
- 1.3 To provide as-built plans for the project, one (1) set original CAD drawing printed in A3, two (2) sets photocopy. As-built plans shall indicate the following drawings in any scale not less than 1:100 meter.
 - a. Floor layout
 - b. Elevations
 - c. Sections
 - d. Other details that maybe required
- 1.4 To submit weekly accomplishment reports.
- 1.5 To properly and safely dispose all wastes generated from the construction.
- 1.6 To ensure that all workers are equipped with construction safety gear at all times.
- 1.7 To provide temporary site office/storage for the workers and do regular maintenance of the same throughout the duration of the project. The temporary structures shall be dismantled at the end of the project.
- 1.8 To shoulder all costs for power and water utilities used for the duration of the construction.
- 1.9 To provide first aid requirements for workers throughout the duration of the project.
- 1.10 To report immediately to JHMC all unearthed hazardous materials, buried treasures or artifacts. JHMC shall coordinate with concerned agencies to handle the same. Activities in said area shall cease until such time that the hazardous materials, treasures have been properly dealt with.

2. DPWH STANDARDS and SPECIFICATIONS

The scope of work shall be in conformity with of the DPWH standards and specifications.

ITEM 102 - EXCAVATION, BACKFILLING AND DISPOSAL

102.1 Description

The Contractor shall perform all earthworks both for roadway, structures, drainage and borrow excavation and the disposal of material in accordance with this Specification and in conformity with the lines, grades and dimensions shown on the Plans or established by the Engineer.

102.2 Construction Requirements

102.2.1 General

When there is evidence of discrepancies on the actual elevations and that shown on the Plans, a pre- construction survey referred to the datum plane used in the approved Plan shall be undertaken by the Contractor under the control of the Engineer to serve as basis for the computation of the actual volume of the excavated materials.

All excavations shall be finished to reasonably smooth and uniform surfaces. No materials shall be wasted without authority of the Engineer. Excavation operation shall be conducted so that material outside of the limits of slopes will not be disturbed. Prior to excavation, all necessary clearing and grubbing in the area shall have been performed in accordance with Item 100, Clearing and Grubbing.

The Contractor shall furnish, place and maintain all supports and shoring that may be required for the sides of the excavations, and all pumping, ditching or other approved measures for the

removal or exclusion of water, including taking care of storm water and waste water reaching the site of the work from any source so as to prevent damage to the work or adjoining property.

102.2.2 Utilization of Excavated Materials

All suitable material removed from the excavation shall be used in the formation of the embankment, subgrade, shoulders, slopes, bedding and backfill for structures, and for other purposes shown on the Plans or as directed.

The Engineer will designate as unsuitable those soils that cannot be properly compacted in the embankments. All suitable materials shall be disposed-off as shown on the Plans or as directed without delay to the Contractor.

Only approved materials shall be used in the construction of embankments and backfills. All excess material, including rock and boulders that cannot be used in embankments shall be disposed-off as directed. Materials encountered in the excavation and determined by the Engineer as suitable for topping, road finishing, slope protection, or other purposes shall be conserved and utilized as directed by the Engineer.

102.2.3 Removal of Unsuitable Materials

Where the Plans show the bottom portion of the disposal cell bed to be selected, all unsuitable materials shall be excavated to the depth necessary for replacement of the selected clay liner to the required compacted thickness.

Where excavation to the finished graded section results in a subgrade or slopes of unsuitable soil, the Engineer may require the Contractor to remove the unsuitable material and backfill to the finished graded section with approved material. The Contractor shall conduct his operations in such a way that the Engineer can take the necessary cross-sectional measurements before the backfill is placed.

102.3 Method of Measurement

The cost of excavation of material which is incorporated in the works or other areas of fill shall be deemed to be included in the Items of work where the material is used.

For measurement purposes, surplus suitable material shall be calculated as the difference between the net volume of suitable material required to be used in embankment or cover material corrected by applying a shrinkage factor or swell factor in case of rock excavation, determined by laboratory tests to get its original volume measurement, and the net volume of suitable material from excavation in the original position. Separate pay items shall be provided for surplus common, unclassified and rock material.

The Contractor shall be deemed to have included in the contract unit prices all costs of obtaining land for the disposal of unsuitable or surplus material.

102.4 Basis of Payments

The accepted quantities, measured as prescribed in Section 102.3, shall be paid for the contract unit price for each of the particular pay items listed below that are included in the Bill of Quantities which price and payment shall be full compensation for the removal and disposal of excavated materials including all labor, equipment, tools and incidentals necessary to complete the work prescribed in this item.

Payment shall be made:

Pay Item No.	Description	Unit of Measurement
102 (1)	Unsuitable Excavation	Cubic meter (cu.m.)

102 (2)	Surplus Common Excavation	Cubic meter (cu.m.)
102 (3)	Surplus Rock Excavation	Cubic meter (cu.m.)
102 (4)	Surplus Unclassified Excavation	Cubic meter (cu.m.)

ITEM 403 – METAL STRUCTURES

403.1 Description

This work shall consist of steel structures and the steel structure portions of composite structures, constructed in reasonably close conformity with the lines, grades and dimensions shown on the Plans or established by the Engineer.

The work will include the furnishing, fabricating, hauling, erecting, welding and painting of structural metals called for in the Special Provision or shown on the Plans.

Structural metals will include structural steel, rivet, welding, special and alloy steels, steel forgings and castings and iron castings. This work will also include any incidental metal construction not otherwise provided for, all in accordance with these Specifications, Plans and Special Provisions.

403.2 Material Requirements

Materials shall meet the requirements of Item 712, Structural Metal; Item 409, Welded Structural Steel, and Item 409, Welded Structural Steel; and Item 709, Paints.

403.3 Construction Requirements

403.3.1 Inspection

The Contractor shall give the Engineer at least fifteen (15) days notice prior to the beginning of work at the mill or shop, so that the required inspection may be made.

The term “mill” means any rolling mill, shop or foundry where material for the work is to be manufactured or fabricated. No material shall be rolled or fabricated until said inspection has been provided.

The Contractor shall furnish the Engineer with copies of the certified mill reports of the structural steel, preferably before but not later than the delivery of the steel to the job site.

The Contractor shall furnish all facilities for inspection and the Engineer shall be allowed free access to the mill or shop and premises at all times. The Contractor shall furnish, without charge, all labor, machinery, material and tools necessary to prepare test specimens.

Inspection at the mill or shop is intended as a means of facilitating the work and avoiding errors and it is expressly understood that it will not relieve the Contractor from any responsibility for imperfect material or workmanship and the necessity for replacing same. The acceptance of any material or finished member at the mill or shop by the Engineer shall not preclude their subsequent rejection if found defective before final acceptance of the work. Inspection of welding will be in accordance with the provision of Section 5 of the “Standard Code for Arc and Gas Welding in Building Construction” of the American Welding Society.

403.3.2 Stock Material Control

When so specified in the Contract, stock material shall be segregated into classes designated as “identified” or “unidentified”. Identified material is material which can be positively identified as having been rolled from a given heat for which certified mill test can be produced. Unidentified material shall include all other general stock materials.

When it is proposed to use unidentified material, the Engineer shall be notified of such intention at least fifteen (15) days in advance of commencing fabrication to permit sampling and testing.

When so indicated or directed, the Contractor shall select such material as he wishes to use from stock, and place it in such position that it will be accessible for inspection and sampling. The Contractor shall select identified material from as few heat numbers as possible, and furnish the certified mill test reports on each of such heat numbers. Two samples shall be taken from each heat number as directed, one for a tension test and one for a bend test.

In the case of unidentified stock, the Engineer may, at his discretion, select any number of random test specimens.

Each bin from which rivets or bolts are taken shall subject to random test. Five rivets or bolts may be selected by the Engineer from each bin for test purposes.

Structural material, either plain or fabricated, shall be stored above the ground upon platforms, skids, or other supports. It shall be kept free from dirt, grease, or other foreign matter, and shall be protected as far as practicable from corrosion.

403.3.3 Fabrication

These Specifications apply to riveted, bolted and welded construction. The Contractor may, however, with approval of the Engineer, substitute high tensile strength steel bolts equivalent to the rivets in any connection.

Workmanship and finish shall be in accordance with the best general practice in modern bridge shops. Portions of the work exposed to view shall be finished neatly. Shearing, flame cutting, and chipping shall be done carefully and accurately.

Structural material, either plain or fabricated, shall be stored above the ground upon platforms, skids or other supports. It shall be kept free from dirt, grease or other foreign matter, and shall be protected as far as practicable from corrosion.

Rolled material before being laid off or worked must be straight. If straightening is necessary, it shall be done by methods that will not injure the metal. Sharp kinks and bends will be cause for rejection of the material.

Preparation of material shall be in accordance with AWS (American Welding Society) D 1.1, paragraph 3.2 as modified by AASHTO Standard Specification for Welding of Structural Steel Highway Bridges.

403.3.4 Finishing and Shaping

Finished members shall be true to line and free from twists, bends and open joints.

Fabricated members shall be true to line and free from twists, bends and open joints.

403.3.5 Welding

Welding shall be done in accordance with the best modern practice and the applicable requirements at AWS D1.1 except as modified by AASHTO "Standard Specifications for Welding of Structural Steel Highway Bridges".

403.3.6 Erection

1. General

The Contractor shall provide the falsework and all tools, machinery and

appliances, including drift pins and fitting-up bolts, necessary for the expeditious handling of the work and shall erect the metal work, remove the temporary construction, and do all work necessary to complete the structure as required by the Contract and in accordance with the Plans and these Specifications.

If shown on the Plans or in the Special Provisions, the Contractor shall dismantle the old structure on the bridge site in accordance with Item 101, Removal of Structures and Obstructions.

403.3.7 Handling and Storing Materials

Materials to be stored shall be placed on skids above the ground. It shall be kept clean and properly drained. Girders and beams shall be placed upright and shored. Long members, such as columns and chords, shall be supported on skids placed near enough together to prevent injury from deflection. If the Contract is for erection only, the Contractor shall check the material turned over to him against the shipping lists and report promptly in writing any shortage or damage discovered. He shall be responsible for the loss of any material while in his care, or for any damage caused to it after being received by him.

403.3.8 Method and Equipment

Before starting the work of erection, the Contractor shall inform the Engineer fully as to the method of erection he proposes to follow, and the amount and character of equipment he proposes to use, which shall be subject to the approval of the Engineer. The approval of the Engineer shall not be considered as relieving the Contractor of the responsibility for the safety of his method or equipment or from carrying out the work in full accordance with the Plans and Specifications. No work shall be done until such approval by the Engineer has been obtained.

403.3.9 Straightening Bent Materials

The strengthening of plates, angles, other shapes and built-up members, when permitted by the Engineer, shall be done by methods that will not produce fracture or other injury. Distorted members shall be straightened by mechanical means or, if approved by the Engineer, by the carefully planned and supervised application of a limited amount of localized heat, except that heat straightening of AASHTO M 244 (ASTM A 514) or ASTM A 517 steel members shall be done only under rigidly controlled procedures, each application subject to the approval of the Engineer. In no case shall the maximum temperature of the AASHTO M 244 (ASTM A 514) or ASTM A 517 steels exceed 607.2°C, nor shall the temperature exceed 510°C at the weld metal or within 152.4 mm of weld metal. Heat shall not be applied directly on weld metal. In all other steels, the temperature of the heated area shall not exceed 648.9°C (a dull red) as controlled by temperature indicating crayons, liquids or bimetal thermometers.

Parts to be heat-straightened shall be substantially free of stress and from external forces, except stresses resulting from mechanical means used in conjunction with the application of heat.

Following the straightening of a bend or buckle, the surface of the metal shall be carefully inspected for evidence of fracture.

403.3.10 Assembling Steel

The parts shall be accurately assembled as shown on the working drawings and any match marks shall be followed. The material shall be carefully handled so that no parts will be bent, broken or otherwise damaged. Hammering which will injure or distort the members shall not be done. Bearing surfaces and surfaces to be in permanent contact shall be cleaned before the members are assembled. Unless erected by the cantilever methods, truss spans shall be erected on blocking so placed as to give the trusses proper camber. The

blocking shall be left in place until the tension chord splices are fully connected with permanent fasteners and all other truss connections pinned and erection bolted. Splices of butt joints of compression members, that are milled to bear and of railing shall not be permanently fastened until the spans have been swung, except that such permanent fastening may be accomplished for the truss members at any time that joint holes are fair. Splices and field connections shall have one-half of the holes filled with erection bolts and cylindrical erection pins (half bolts and half pins) before placing permanent fasteners. Splices and connections carrying traffic during erection shall have three-fourths of the holes so filled, unless otherwise permitted by the Engineer.

Fitting-up bolts shall be of the same nominal diameter as the permanent fasteners and cylindrical erection pins will be 1.6 mm larger.

403.3.11 Preparing Metal Surfaces for Painting

All surfaces of new structural steel which are to be painted shall be blast cleaned unless otherwise specified in the Special Provisions or approved in writing by the Engineer.

In repainting existing structures where partial cleaning is required, the method of cleaning will be specified in the Special Provision.

The steel surfaces to be painted shall be prepared as outlined in the “Steel Structures Painting Council Specifications” (SSPC) meeting one of the following classes of surface preparation.

- | | |
|-------------------|----------------------------|
| a. SSPC – SP – 5 | White Metal Blast Cleaning |
| b. SSPC – SP – 6 | Commercial Blast Cleaning |
| c. SSPC – SP – 8 | Pickling |
| d. SSPC – SP – 10 | Near White Blast Cleaning |

Blast cleaning shall leave all surfaces with a dense and uniform anchor pattern of not less than one and one-half mills as measured with an approved surface profile comparator.

Blast cleaned surfaces shall be primed or treated the same day blast cleaning is done. If cleaned surface rust or are contaminated with foreign material before painting is accomplished, they shall be re-cleaned by the Contractor at his expense.

When paint systems No. 1 or 3 are specified, the steel surfaces shall be blast cleaned in accordance with SSPC – SP – 10. When paint systems No. 2, 4 or 5 are specified, the steel surface shall be blast cleaned in accordance with SSPC – SP – 6.

403.3.12 System of Paint

The paint system to be applied shall consist of one as set forth in Table 403.4 and as modified in the Special Provisions.

403.3.13 Painting Metal Surfaces

1. Time of Application

The prime coat of paint or pretreatment when specified, shall be applied as soon as possible after the surface has been cleaned and before deterioration of the surface occurs. Any oil, grease, soil, dust or foreign matter deposited on the surface after the surface preparation is completed shall be removed prior to painting. In the event the rusting occurs after completion of the surface preparation, the surfaces shall be again cleaned.

Particular care shall be taken to prevent the contamination of cleaned surfaces with salts, acids, alkali, or other corrosive chemicals before the prime

coat is applied and between applications of the remaining coats of paint. Such contaminants shall be removed from the surface. Under these circumstances, the pretreatments or, in the absence of a pretreatment, the prime coat of paint shall be applied immediately after the surface has been cleaned.

2. Storage of Paint and Thinner

All paint and thinner should preferably be stored in a separate building or room that is well ventilated and free from excessive heat, sparks, flame or the direct ray of the sun.

All containers of paint should remain unopened until required for use. Containers which have been opened shall be used first.

Paint which has livered, gelled, or otherwise deteriorated during storage shall not be used. Thixotropic materials which may be stirred to attain normal consistency are satisfactory.

3. Mixing and Thinning

All ingredients in any container of paint shall be thoroughly mixed before use and shall be agitated often enough during application to keep the pigment in suspension.

Paint mixed in the original container shall not be transferred until all settled pigment is incorporated into the vehicle. This does not imply that part of the vehicle cannot be poured off temporarily to simplify the mixing.

Mixing shall be by mechanical methods, except that hand mixing will be permitted for container up to 19 liters in size.

Mixing in open containers shall be done in a well-ventilated area away from sparks or flames.

Paint shall not be mixed or kept in suspension by means of an air stream bubbling under the paint surface.

When a skin has formed in the container, the skin shall be cut loose from the sides of the container, removed, and discarded. If such skins are thick enough to have a practical effect on the composition and quality of the paint, the paint shall not be used.

The paint shall be mixed in manner which will insure breaking up of all lumps, complete dispersion of settled pigment, and a uniform composition. If mixing is done by hand, most of the vehicle shall be poured off into a clean container. The pigment in the paint shall be lifted from the bottom of the container with a broad, flat paddle, lumps shall be broken up, and the pigment thoroughly mixed with the vehicle. The poured off vehicle shall be returned to the paint with simultaneous stirring, or pouring repeatedly from one container to another until the composition is uniform. The bottom of the container shall be inspected for unmixed pigment. Tinting pastes or colors shall be wetted with a small amount of thinner, vehicle, or paint and thoroughly mixed. The thinned mixture shall be added to the large container of paint and mixed until the color is uniform.

Paint which does not have a limited pot life, or does not deteriorate on standing, may be mixed at any time before using, but if settling has occurred, it must be remixed immediately before using. Paint shall not remain in spray pots, painter's buckets, etc., overnight, but shall be gathered into a container and remixed before use.

No thinner shall be added to the paint unless necessary for proper application. In no case shall more than 0.5 liters of thinner be added per 3.8 liters unless the paint is intentionally formulated for greater thinning.

The type of thinner shall comply with the paint specification. When the use of thinner is permissible, thinner shall be added to paint during the mixing process. Painters shall not add thinner to paint after it has been thinned to the correct consistency.

All thinning shall be done under supervision of one acquainted with the correct amount and type of thinner to be added to the paint.

Table 403.4 – Paint System

	Paint System				
	1	2	3	4	5
High Pollution or Coastal	x	x	x		
Mild Climate				x	x

Note:

1. Paint system shown for severe areas are satisfactorily in less severe areas.
2. Coastal - within 304.8 m of ocean or tidal water.

High pollution-air pollution environment such as industrial areas.

Mild-other than coastal areas not in air pollution environment.

All structural steel shall be painted by one of the following systems. The required system or choice of systems will be shown in the Contract.

System 4 is intended for use in mild climates or to repaint existing structures where the other systems are not compatible.

Coating Thickness	Specifications	Min. Dry
System 1 – Vinyl Paint System		
Wash Prime	708.03 (b)	12.7
Intermediate Coat	708.03 (b)	38.10 – 50.80
3 rd Coat	708.03 (b)	38.10 – 50.80
4 th Coat	708.03 (b)	38.10 – 50.80
Finish Coat	708.03 (b)	38.10 – 50.80
Total thickness	165.10 – 203.20	
System 2 – Epoxy-Polyimide System		
Prime Coat	708.03 (c)	50.80 – 76.20
Intermediate Coat	708.03 (c)	50.80 – 76.20
3 rd Coat	708.03 (c)	50.80 – 76.20
Finish Coat	708.03 (c)	38.10 – 50.80
Total thickness	190.50 – 279.40	
* The third coat may be eliminated in mild climates		
Coating Thickness	Specifications	Min. Dry

System 3 – Inorganic Zinc-Rich Coating System		
Prime Coat	708.03(d)	88.90 – 127
Epoxy Intermediate Coat	708.03 (d)	40.80 – 76.20
Finish Coat	708.03 (d)	38.10 – 50.80
Total thickness		177.80 – 254
Alternate System		
Prime Coat	708.03 (d)	88.90 – 127
Wash Primer Tie Coat	708.03 (d)	12.70
Finish Coat	708.03 (d)	38.10 – 50.80
Total thickness		139.70 – 190.50
System 4 – Alkyd-Oil-Basic Lead-Chromate System		
Prime Coat	708.03 (e)	38.10 – 50.80
Intermediate Coat	708.03 (e)	38.10 – 50.80
Finish Coat	708.03 (e)	38.10 – 50.80
Total thickness		114.30 – 152.40
* The paint system may be specified as four coats for new structure steel in mild climate, with a minimum thickness of 152.40 mm.		
System 5 – Organic Zinc-Rich Paint System		
Prime Coat	708.03 (f)	38.10 – 50.80
Intermediate Coat	708.03 (f)	50.80 – 63.50
Wash Primer Tie Coat	708.03 (f)	12.70
Finish Coat	708.03 (f)	38.10 – 50.80
Total thickness		139.70 – 177.80

4. Application of Paint

a. General

The oldest of each kind of paint shall be used first. Paint shall be applied by brushing or spraying or a combination of these methods.

Daubers or sheepskins may be used when no other method is practicable for proper application in places of difficult access. Dipping, roller coating, or flow coating shall be used only when specifically authorized. All paints shall be applied in accordance with the manufacturer's instructions.

Open seams at contact surfaces of built up members which would retain moisture shall be caulked with red lead paste, or other approved material, before the second undercoat of paint is applied.

Paint shall not be applied when the surrounding air temperature is below 4.4°C. Paint shall not be applied when the temperature is expected to drop to 0°C before the paint has dried. Paint shall not be applied to steel at a temperature over 51.7°C unless the paint is specifically formulated for application at the proposed temperature, nor shall paint be applied to steel which is at a temperature that will cause blistering or porosity or otherwise will be detrimental to the life of the paint.

Paint shall not be applied in fog or mist, or when it is raining or when the relative humidity exceeds 85 percent. Paint shall not be applied to wet or damp surfaces.

When paint must be applied in damp or cold weather, the steel shall

be painted under cover, or protected, or sheltered or the surrounding air and the steel heated to a satisfactory temperature. In such cases, the above temperature and humidity conditions shall be met. Such steel shall remain under cover or be protected until dry or until weather conditions permit its exposure.

Any applied paint exposed to excess humidity, rain or condensation shall first be permitted to dry. Then damaged areas of paint shall be removed, the surface again prepared and then repainted with the same number of coats of paint of the same kind as the undamaged areas.

If stripe painting is stipulated in the Special Provisions or if the Contractor chooses to do so at his option, all edges, corners, crevices, rivets, bolts, weld and sharp edges shall be painted with the priming paint by brush before the steel receives first full prime coat of paint. Such striping shall extend for at least 25.4 mm from the edge. When practicable, this stripe coat shall be permitted to dry before the prime coat is applied, otherwise the stripe coat shall set to touch before the full prime coat is applied. However, the stripe coat shall not be permitted to dry for a period of long enough to allow rusting of the unprimed steel. When desired, the stripe coat may be applied after a complete prime coat.

To the maximum extent practicable, each coat of paint shall be applied as continuous film of uniform thickness free of pores. Any thin spots or areas missed in the application shall be repainted and permitted to dry before the next coat of paint is applied. Film thickness is included in the description of paint systems. Each coat of paint shall be in a proper state of cure or dryness before application of the succeeding coat.

b. Brush Application

Paint shall be worked into all crevices and corners where possible and surfaces not accessible to brushes shall be painted by spray, doublers, or sheepskins. All runs or rags shall be brushed out. There shall be a minimum of brush marks left in the paint.

c. Spray Application of Paint

The equipment used for spray application of paint shall be suitable for the intended purpose, shall be capable of properly atomizing the paint to be applied and shall be equipped with suitable pressure regulators and gages. The air caps, nozzles, and needles shall be those recommended by the manufacturer of the equipment for the material being sprayed. The equipment shall be kept in satisfactory condition to permit proper paint application. In closed or recirculating paint spray system, where gas under pressure is used over the liquid, the gas shall be an inert, one such as nitrogen. Traps or separators shall be provided to remove oil and water from the compressed air. These traps or separators shall be adequate size and shall be drained periodically during operations. The air from the spray gun impinging against the surface shall show no water or oil.

Paint ingredients shall be kept properly mixed in the spray pots or containers during paint applications either by continuous mechanical agitation or by intermittent agitation as frequently as necessary.

The pressure on the material in the pot and of the air at the guns shall be adjusted for optimum spraying effectiveness. The pressure on the

material in the pot shall be adjusted when necessary for changes in elevation of the gun above the pot. The atomizing air pressure at the gun shall be high enough to atomize the paint properly but not so high as to cause excessive fogging of paint, excessive evaporation of solvent or loss by overspray.

Spray equipment shall be kept sufficiently clean so that dirt, dried paint and other foreign material are not deposited in the paint film. Any solvents left in the equipment shall be completely removed before applying paint to the surface being painted.

Paint shall be applied in uniform layer, with overlapping at the edge of the spray pattern. The spray shall be adjusted so that the paint is deposited uniformly. During application, the gun shall be held perpendicular to the surface and at a distance which will insure that a wet layer of paint is deposited on the surface. The trigger of the gun should be released at the end of each stroke.

All runs and sags shall be brushed out immediately or the paint shall be removed and the surface repainted. Spray application of prime coats shall in all cases be immediately followed by brushing

Areas inaccessible to the spray gun shall be painted by brush, if not accessible by brush, daubers or sheepskins shall be used. Brushes shall be used to work paint into cracks, crevices and blind spots where are not adequately painted by spray.

d. Shop Painting

Shop painting shall be done after fabrication and before any damage to the surface occurs from weather or other exposure. Shop contact surfaces shall not be painted unless specified.

Surfaces not to be in contact but which will be inaccessible after assembly shall receive the full paint system specified or three shop coats of the specified before assembly.

The areas of steel surfaces to be in contact with concrete shall not be painted, unless otherwise shown on the Plans, the areas of steel surfaces to be in contact with wood shall receive either the full paint coats specified or three shop coats of the specified primer.

If paint would be harmful to a welding operator or would be detrimental to the welding operation or the finished welds, the steel shall not be painted within a suitable distance from the edges to be welded. Welding through inorganic zinc paint systems will not be permitted unless approved by the Engineer.

Anti-weld spatter coatings shall be removed before painting. Weld slag and flux shall be removed by methods at least as effective as those specified for the cleaning.

Machine-finished or similar surfaces that are not to be painted, but do not require protections, shall be protected with a coating of rust inhibitive petroleum, other coating which may be more suitable, for special conditions.

Erection marks and weight marks shall be copied on area that have been previously painted with the shop coat.

e. Field Painting

Steel structures shall be painted as soon as practicable after erection.

Metal which has been shop coated shall be touched up with the same type of paints as the shop coat. This touch-up shall include cleaning and painting of field connections, welds, rivets and all damaged or defective paint and rusted areas. The Contractor may, at his option, apply an overall coat of primer in place of touch-up spot painting.

Surfaces (other than contact surfaces) which are accessible before erection but which will not be accessible after erection shall receive all field coats of paint before erection. If possible the final coat of paint shall not be applied until all concrete work is finished. If concreting or other operations damage any paint, the surfaces shall be cleaned and repainted. All cement or concrete spatter and dripping shall be removed before any paint is applied.

Wet paint shall be protected against damage from dust or other detrimental foreign matter to the extent practicable.

f. Drying of Painted Metal

The maximum practicable time shall be allowed for paint to dry before recoating or exposure. No drier shall be added to paint on the job unless specifically called for in the Specifications for the paint. No painted metal shall be subjected to immersion before the paint is dried through. Paint shall be protected from rain, condensation, contamination, and freezing until dry, to the fullest extent practicable.

g. Handling of Painted Steel

Painted steel shall not be handled until the paint has dried, except for necessary handling in turning for painting or stacking for drying.

Paint which is damaged in handling shall be scraped off and touched-up with the same number of the coats and kinds of paint as were previously applied to the steel.

Painted steel shall not be loaded for shipment or shipped until it is dry.

Precautions shall be taken to minimize damage to paint films resulting from stocking members.

403.3.14 Clean-up

Upon completion and before final acceptance, the Contractor shall remove all falsework, falsework piling down to at least 609.6 mm below the finished ground line, excavated or unused materials, rubbish and temporary buildings. He shall replace or renew any fences damaged and restored in an acceptable manner all property, both public and private, which may have been damaged during the prosecution of the work and shall leave the work site and adjacent highway in a neat and presentable condition, satisfactory to the Engineer. All excavated material or falsework placed in the stream channel during construction shall be removed by the Contractor before final acceptance.

403.4 Method of Measurement

403.4.1 Unit Basis

The quantity of structural steel to be paid for shall be the number of kilos complete in place and accepted. For the purpose of measurement for payment components fabricated from metals listed in (1) below, such as casting, alloy steels, steel plates, anchor bolts and nuts, shoes, rockers, rollers, pins and nuts, expansion dams, roadway drains and souppers, welds metal, bolts embedded in concrete, cradles and brackets, posts, conduits and ducts, and structural shapes for expansion joints and pier protection will be considered as structural steel.

Unless otherwise provided, the mass of metal paid for shall be computed and based upon the following mass:

1. Unit Density kg/m³

Aluminum, cast or rolled	2771.2
Bronze or copper alloy	8585.9
Copper sheet	8938.3
Iron, cast	7128.2
Iron, malleable	7528.7
Lead, sheet	11229
Steel, cast or rolled, including alloy copper bearing and stainless	7849
Zinc	7208.3

2. Miscellaneous

The mass of erection bolts, shop and field paint, galvanizing the boxes, crates and other containers used for shipping, together with sills, struts, and rods used for supporting members during the transportation, bridge hardware as defined in Subsection 402.2.2 excluding steel plates and bearings, connectors used for joining timber members, nails, spikes and bolts, except anchor bolts will be excluded.

3. Welds

The mass of shop and field fillet welds shall be assumed as follows:

Size of Weld (mm)	kg per linear metre
6.3	0.984
7.9	1.213
9.5	1.771
12.7	2.690
5.9	3.936
19.0	5.379
22.2	7.314
25.4	9.774

The mass of other welds will be computed on the basis of the theoretical volume from dimensions of the welds, with an addition of 50 mass percent as an allowance for overrun.

4. Other Items

The quantities of other Contract Items which enter into the completed and accepted structure shall be measured for payment in the manner prescribed for the Items involved.

403.4.2 Lump Sum Basis

Lump sum will be the basis of payment unless noted otherwise in the bidding documents. No measurements of quantities will be made except as provided in Subsection 403.5.1 (4).

403.5 Basis of Payment

403.5.1 Structural Steel

1. Furnished, Fabricated and Erected

The quantity, determined as provided above, shall be paid for at the contract unit price per kilogram for “Structural Steel, furnished, fabricated and erected”, which price and payment shall constitute full compensation for furnishing, galvanizing, fabricating, radiographing, magnetic particle inspection, delivering, erecting ready for use, and painting all steel and other metal including all labor, equipment, tools and incidentals necessary to complete the work, except as provided in Subsections 403.5.2, 403.5.3 and 403.5.4.

2. Furnished and Fabricated

When a quantity and unit price for “Structural Steel, furnished and fabricated” are shown in the Bill of Quantities, the quantity, determined as provided above, will be paid for at the contract unit price per kilogram which price and payment shall be full compensation for furnishing, galvanizing, fabricating, radiographing, magnet particle inspection, shop painting and delivering the structural steel and other metal free of charges at the place designated in the Special Provisions and for all labor, equipment, tools and incidentals necessary to complete the work, save erection and except as provided in Subsection 403.5.2, 403.5.3 and 403.5.4.

3. Erected

When a quantity and unit price for “Structural Steel Erected” are shown in the Bill of Quantities, the quantity, determined as provided above, will be paid for at the said contract unit price per kilogram which price and payment shall be full compensation for unloading all the structural steel and other metal, payment of any demurrage charges, transporting to the bridge site, erecting, magnetic particle inspection and radiographing, complete ready for use including furnishing and applying the field paint including all labor, equipment, tools and incidentals necessary to complete the work, save furnishing and fabrication, and except as provided in Subsections 403.5.2, 403.5.3 and 403.5.4.

4. Lump Sum

When the Bill of Quantities calls for lump sum price for “Structural Steel, furnished, fabricated and erected”, the Item will be paid for at the contract lump sum price and payment shall be full compensation for furnishing, fabricating and erecting material and for all work herein before prescribed in connection therewith, including all labor, equipment, tools and incidentals necessary to complete the work, except as provided in Subsections 403.5.2, 403.5.3 and 403.5.4.

The estimate of the mass of structural steel shown on the Plans is approximate only and no guarantee is made that it is the correct mass to be furnished. No adjustment in the contract price will be made if the mass furnished is more or less than estimated mass.

If changes in the work are ordered by the Engineer, which vary the mass of steel to be furnished, the lump sum payment shall be adjusted as follows:

- a. The value per kilogram of the increase or decrease in mass of structural steel involved in the change shall be determined by dividing the contract lump sum amount by the estimate of mass shown on the Plans. The adjusted contract lump sum payment shall be the contract lump sum plus or minus the value of the steel involved in the change, and no additional compensation shall be made on account of said change.
- b. Full-size members which are tested in accordance with the Specifications when such tests are required by the Contract, shall be paid for at the same rate as for comparable members in the structure. Members which fail to meet the Contract requirements, and members rejected as a result of test shall not be paid for.

403.5.2 Material Considered as Structural Steel

For the purpose of Subsection 403.5.1 and unless otherwise shown on the Plans, castings, forgings, special alloy steels and steel plates, wrought iron, and structural shapes of expansion joints and pier protection shall be considered as structural steel except that when quantities and unit price for certain alloy steels, forgings, castings or other specific categories of metal are called for in the Bill of Quantities, the mass of such selected material, determined as provided above, shall be paid for at the respective contract unit price per kilogram for “Structural Steel (Alloy steel, forgings, castings, and/or other category), furnished and fabricated, and erected” or “Structural Steel (Subsection 403.4.1), furnished and fabricated” as named in the Bill of Quantities.

403.5.3 Other Items

The quantities of all other Contract Items which enter into the completed and accepted structure shall be paid for at the contract unit prices for the several Pay Items as prescribed for the Items involved.

403.5.4 Payment as Reinforcing Steel

When the Bill of Quantities does not contain a pay item for structural steel, the quantities of metal drains, scuppers, conduits, ducts and structural shapes for expansion joints and pier protection, measured as provided above will be paid for as Reinforcing Steel under Item 404.

Payment will be made under:

Pay Item Number	Description	Unit of Measurement
403 (1)	Structural Steel, furnished, fabricated and erected	kilogram

Where separate payment is to be made for certain metals or for certain particular components, other than under the general provision for structural steel, designation of those particular cases shall be inserted in the spaces provided in the pay names for Item 403 (2), 403 (4) or 403 (6), as the case may be.

ITEM 900 - REINFORCED CONCRETE

900.1 Description

This item shall consist of furnishing, placing and finishing concrete in buildings and related structures, flood control and ports, and water supply structures in accordance with this specification and conforming to the lines, grades and dimension shown in the plans.

900.2 Materials Requirements

900.2.1 Portland Cement

This item shall conform to the requirement of ITEM 700, Hydraulic Cement, Vol. I.

Concrete Aggregates

The concrete aggregates shall conform to the requirement of Subsection 311.2.2 and 311.2.3 under ITEM 311 of Volume I and ASTM C 33 for lightweight aggregates, except that aggregates failing to meet these specifications but which have been shown by special that or actual service to produce concrete of adequate strength and durability maybe used under method (2) of determining the proportion of concrete, where authorized by the Engineer.

Except as permitted elsewhere in this section, the maximum size of the aggregate shall be not larger than one-fifth (1/5) of the narrowest dimensions between size of forms of the member for which the concrete is to be used nor later than three-fourths of the minimum clear spacing between individual reinforcing bars or bundles of bars or pre-tensioning strands.

Aggregate Test

Samples of the fine and coarse aggregates to be used shall be selected by the Engineer for tests at least 30 days before the actual concreting operations are to begin. It shall be the responsibility of the contractor to designate the source or sources of aggregate to give the Engineer sufficient time to obtain the necessary samples and submit them for testing.

No aggregates shall be used until official advice has been received that it has satisfactory passed all test, at which time written authority shall be given for its use.

900.2.3 Water

Water used in mixing concrete shall conform to the requirement of Subsection 311.2.4 under ITEM 311, Part D of Volume 1.

900.2.4 Metal Reinforcement

Reinforcing Steel bars shall conform to the requirements of the following Specifications:

Deformed & Plain Billet Steel	ASTM A 6151
Bars for concrete reinforcement	AASHTO M31
Deformed Rail – Steel and Plain Bars for concrete reinforcement	ASTM A616
Deformed A x b – Steel and Plain Bars for concrete reinforcement	ASTM A617

If reinforcing bars are to be welded, these ASTM specifications shall be supplemented by requirements assuring satisfactory weldability.

Bars and rod for concrete Reinforcement	ASTM A187
Cold-Drawn Steel Wire for Concrete reinforcement	ASTM A187 AASHTO M32

Welded Steel wire fabric	ASTM A185
For concrete reinforcement	AASHTO M55

Except that the welded shear strength requirement of those specification shall be extended to Include a wire size differential up to and including six gages.

Wire and Strands for prestressed	ASTM A416
Concrete	ASTM A421

Used in making strands for post-tensioning shall be cold-drawn and either stress-relieved in the Case of uncoated strands or hot-dip galvanized in the case of galvanized strands.

High strength alloy steel bar for post-tensioning shall be proof stressed to 90% of the granted tensile strength. After proof stressing, the bars shall conform to the following minimum properties:

Tensile strength f_s'	1000 Mpa
Yield strength (0.2 offset)	0.90 f_s'
Elongation at rupture in 20 diameter	4 percent
Reduction of area at rupture	25 percent
Structural steel	ASTM A36
Steel Pipe for concrete-filled Pipe columns	ASTM A 53
Cast-iron Pipe for concrete Columns	ASTM A 377

900.2.5 Admixtures

Air-entraining admixtures, if used shall conform to ASTM C 260. Water-reducing admixtures, retarding admixtures, water-reducing and retarding admixtures and water reducing and accelerating admixtures, if used, shall conform to the requirements of ASTM C 494.

900.2.6 Storage of Materials

Cement and aggregates shall be stored in such a manner as to prevent their deterioration or intrusion of foreign matter. Cement shall be stored immediately upon arrival on the site of the work, in substantial waterproof bodegas, with a floor raised from the ground sufficiently high to be free from dampness. Aggregates shall be stored in such a manner as to avoid the inclusion of foreign materials.

900.3 Construction Requirements

Notations: The notations used in these regulations are defined as follows:

f'_c = compressive strength of concrete

F_{sp} = ratio of splitting tensile strength to square root compressive strength

900.3.1 Concrete Quality

All plans submitted for approval or used for any project shall clearly show the specified strength, f'_c , of concrete of the specified age for which each part of the structure was designed.

Concrete that will be exposed to sulfate containing or other chemically aggressive solutions shall be proportioned in accordance with "Recommended Practice for Selecting proportions for Concrete (ACI 613)" and with "Recommended Practice for Selecting proportions for Structural Lightweight Concrete (ACI 613A)."

900.3.2 Methods of Determining the Proportions of Concrete

The determination of the proportions of cement, aggregate, and water to attain the required strengths shall be made by one of the following methods, but lower water-cement ratios may be required for conformance with the quality of concrete.

Method 1. Without preliminary test

Where preliminary test data on the materials to be used in the concrete have not been obtained the water-cement ratio for a given strength of concrete shall not exceed the values shown in Table 900.1. When strengths in excess of 281 kilograms per square centimeter (4000 pounds per square inch) are required or when light weight aggregates or admixtures (other than those exclusively for the purpose of entraining air) are used, the required water-cement ratio shall be determined in accordance with Method 2.

Method 2. For combination of materials previously evaluated or to be established by trial mixtures. Water-cement ratios for strengths greater than that shown in Table 900.1 may be used provided that the relationship between strength and water-cement ratio for the materials to be used has been previously established by reliable test data and the resulting concrete satisfies the requirements of concrete quality.

Where previous data are not available, concrete trial mixtures having proportions and consistency suitable for the work shall be made using at least three different water-cement ratios (or cement content in the case of lightweight aggregates) which will produce a range of strengths encompassing those required for the work. For each water-cement ratio (or cement content) at least three specimens for each age to be tested shall be made, cured and tested for strength in accordance with ASTM C 39 and C 192.

The strength test shall be made at 7, 14 and 28 days at which the concrete is to receive load, as indicated on the plans. A curve shall be established showing the relationship between water-cement ratio (or cement content) and compressive strength. The maximum permissible water-cement ratio for the concrete to be used in the structure shall be that shown by the curve to produce an average strength to satisfy the requirements of the strength test of concrete provided that the water-cement ratio shall be no greater than that required by concrete quality when concrete that is to be subjected to the freezing temperature which weight shall have a water-cement ratio not exceeding 6 gallon per bag (50 kgs.) and it shall contain entrained air.

Table 900.1 Maximum Permissible Water-Cement Ratios for Concrete (Method 1)

Specific Compressive strength at 28 days, psi fc'	Maximum permissible Water-Cement Ratio			
	Non Air-entrained Concrete		Air-entrained Concrete	
	U.S. gal. per 42.5 kg. bag of cement	Absolute Ratio by weight	U.S. gal. per 42.5 kg. bag of cement	Absolute Ratio by weight
2500	7 ¼	0.642	6 ¼	0.554
3000	6 ½	0.576	5 ¼	0.465
3500	5 ¾	0.510	4 ½	0.399
4000	5	0.443	4	0.354

900.3.3 Concrete Proportions and Consistency

The proportion of aggregate to cement for any concrete shall be such as to produce a mixture which will work readily into the corners and angles on the form and around

reinforcement with the method of placing employed on the work, but without permitting the materials to segregate or excess free water to collect on the surface. The methods of measuring concrete materials shall be such that the proportions can be accurately controlled and easily checked at any time during the work.

900.3.4 Sampling and Testing of Structural Concrete

As work progress, at least one (1) set of sample consisting of three (3) concrete cylinder test specimens, 150 x 300 mm. shall be taken from each class of concrete placed each day, and each set to represent not more than 75 cu.m. of concrete.

900.3.5 Consistency

Concrete shall have a consistency such that it will be workable in the required position. It shall be such a consistency that it will flow around reinforcing steel but individual particles of the coarse aggregate when isolated shall show a coating or mortar containing its proportionate amount of sand. The consistency of concrete shall be gauged by the ability of the equipment to properly placed it and not by the difficulty of mixing water shall be determined by the Engineer and shall not be varied without his consent. Concrete as dry as it is practical to place with the equipment specified shall be used.

900.3.6 Strength Test of Concrete

When strength is the basis of acceptance, each class of concrete shall be represented by at least five test (10 specimens). Two specimens shall be made for each test at a given age, and not less than one test shall be made for each 150 cu. m. of structural concrete, but there shall be at least one test for each days concreting.

The Engineer may require a reasonable number of additional tests during the progress of the work. Samples from which compression test specimens are molded shall be secured in accordance with ASTM C 172. Specimens made to check the adequacy of the proportions for strength of concrete or as basis for acceptance of concrete shall be made and laboratory-cured in accordance with ASTM C 31. Additional test specimens cured entirely under field conditions may be required by the Engineer to check the adequacy of curing and protection of the concrete. Strength tests shall be made in accordance with ASTM C 39.

The age for strength tests shall be 28 days or, where specified, the earlier age at which the concrete is to receive its full load or maximum stress. Additional test may be made at earlier ages to obtain advance information on the adequacy of strength development where age-strength relationships have been established for the materials and proportions used.

To conform to the requirements of this Item:

1. For structures designed in accordance with the Working Stress Design (WSD) method of this chapter, the average of any five consecutive strength tests of the laboratory-cured specimens representing each class of concrete shall be equal on or greater than the specified strength, f_c' , and not more than 20 percent of the strength test shall have values less than that specified.
2. For structures designed in accordance with the Ultimate Strength Design (USD) method of this chapter, and for prestressed structures the average of any three consecutive strength test of the laboratory cured specimens representing each class of concrete shall be equal to or greater than the specified strength, f_c' and not more than 10 percent of the strength tests shall have values less than the specified strength.

When it appears that the laboratory-cured specimens will fail to conform to the requirements for strength, the Engineer shall have the right to order changes in the concrete sufficient to increase the strength to meet these requirements. The strengths of the specimens cured on the job are intended to indicate the adequacy of protection and curing of the concrete and

may be used to determine when the forms may be stripped, shoring removed, or the structure placed in service. When, in the opinion of the Engineer, the strengths of the job-cured specimens, the Contractor may be required to improve the procedures for protecting and curing the concrete, or when test of field-cured cylinders indicate deficiencies in protection and curing, the Engineer may require test in accordance with ASTM Specification C 42 or order load test as outlined in the load tests of structures for that portion of the structure where the questionable concrete has been placed.

900.3.7 Splitting Tensile Test of Concrete

To determine the splitting ration, F_{sp} , for a particular aggregate, test of concrete shall be made as follows:

1. Twenty four (24) 15 cm. diameter by 30 cm. long (6 in. dia. by 12 in. long) cylinders shall be made in accordance with ASTM C 192, twelve at compressive strength level of approximately 210 kilograms per square centimeter (3000 psi) and twelve at approximately 280 kilograms per square centimeter (4000 psi) or 350 kilograms per square centimeter (5000 psi). After 7 days moist curing followed by 21 days at 23 °C (73 °F) and 50% relative humidity, eight of the test cylinders at each of the two strength levels shall be tested for splitting strength and four for compressive strength.
2. The splitting tensile strength shall be determine in accordance with ASTM C 496, and compressive strength in accordance with ASTM C 39.

The ration, F_{sp} , of splitting tensile strength to the square root of compressive strength shall be obtained by using the average of all 16 splitting tensile test and all 8 compressive tests.

Minimum Strength, Concrete other than fill, shall have a minimum compressive strength at 28 days of 140 kilograms per square centimeter (2000 psi).

900.3.8 Batching

Batching shall conform to the requirements of ITEM 405, Structural Concrete.

900.3.9 Mixing and Delivery

Mixing and delivery shall conform to the requirements of ITEM 405, Structural Concrete.

900.3.9.1 Concrete Surface Finishing: General

This shall be in accordance with ITEM 407, Concrete Structures.

900.3.9.2 Curing Concrete

This shall be in accordance with ITEM 407, Concrete Structures

900.3.9.3 Acceptance of Concrete

The strength of concrete shall be deemed acceptable if the average of three (3) consecutive strength test results is equal to or exceed the specified strength and no individual test result falls below the specified strength by more than 15%.

Concrete deemed to be not acceptable using the above criteria may be rejected unless Contractor can provide evidence, by means of core tests, that the quality of concrete represented by the failed test result is acceptable in place. Three (3) cores shall be obtained from the affected area, cured and tested in accordance with AASHTO T24. Concrete in the area represented by the cores will be deemed acceptable if the average of cores is equal to or at least 85% and no sample core is less than 75% of the specified strength otherwise it shall be rejected.

900.4 Method of Measurement

The quantity of concrete to be paid shall be the quantity shown in the Bill of Quantities schedule, unless changes in design are made in which case the quantity shown in the Bill of Quantities will be adjusted by the amount of the change for the purpose of payment. No deduction will be made for the volume occupied by the pipe less than 101 mm. (4") in diameter nor for reinforcing steel, anchors, weep holes or expansion materials.

900.5 Basis of Payment

The accepted quantities measured as prescribed in Sub-Section 900.7 shall be paid for at the appropriate contract unit price for the pay item listed below as shown in the Bill of Quantities, which price and payment shall be full compensation for furnishing all materials, including metal water stops, joints, joint fillers, weep holes, and rock backing and timber bumpers; for all form and false work; for mixing, placing, furnishing, and curing the concrete; and for all labor, materials, equipment, tools and incidentals to complete the item, except that reinforcing steel shall be paid for at the contract unit price per kilogram for reinforcing steel metal pipes and drains, metal conduits and ducts, and metal expansion angles shall be paid for as structural steel that when the proposal does not include an item for Structural Steel these miscellaneous metal parts shall be paid for as reinforcing steel.

Pay Item No.	Description	Unit of Measurement
900 (1)	Reinforced Concrete	Cubic meter (cu.m.)

ITEM 901 MASONRY WORKS

901.1 Description

The work includes all labor, materials, tools and equipment necessary to install concrete masonry and all appurtenant work in connection with the work as shown on the Drawings and Specifications.

901.2 Materials Requirements

Concrete masonry unit work of the type indicated shall be provided and shall be properly coordinated with the work of their trades. The source of supply of materials, which will affect the appearance of the finished work, shall be changed after the work has started.

901.2.1 Concrete Hollow Blocks

Concrete hollow blocks shall be standard machine fabricated and shall have fine and even texture and well- defined edges. CHB shall conform to the requirements of ASTM Specifications C 90, grade with minimum compressive strength of 2.45 MPa (350 psi) (average of 5 specimens). Samples shall be tested and submitted to the Engineer. Dimensions and tolerances shall be as individually specified on the Plans.

901.2.2 Mortar and Grout

Unless otherwise indicated on the Plans, masonry mortar shall be composed of one (1) part Portland cement, and two (2) parts fine aggregate by volume to which hydrated lime has been added in an amount equal to ten (10) mass percent of the cement. For masonry walls not exceeding 1,8 m (1.6) in height, a mortar composed of one (1) part masonry cement and two (2) parts fine aggregate by volume may be substituted for the above mixture of Portland cement, lime and fine aggregate. Grout shall be of the same materials and proportion as mortar to which additional water shall be added to produce a consistency for pouring without segregation.

Masonry cement shall conform to the requirements of AASHTO M 150 – 74 (ASTM C

91). Fine aggregate shall conform to the requirements of AASHTO M 45 (ASTM C 144). Water shall conform to the requirements of Item 714, Water.

901.2.3 CHB Wall Reinforcement

1. Vertical and Horizontal Reinforcement

Unless otherwise specified, the vertical and horizontal reinforcements for CHB shall be 10mm diameter at 400 for all wall thicknesses. Lap splices shall be 300 mm long (minimum).

2. Lintel Beams

- Unless noted otherwise, lintel beams to be used shall have a depth of 0.20 m and the thickness of CHB wall, reinforced by 4 – 10 mm diameter with 10 mm diameter at 200 ties.
- Lintel beams shall be provided on top of CHB wall openings. It shall extend at least 0.30 m beyond each opening.
- Stiffener beams (detail similar to lintel beam) shall be provided on top CHB partition walls not anchored to regular reinforced concrete beams/girders. Stiffener beams shall be provided for walls exceeding 3 meters in height.

3. Dowels

Where CHB walls adjoin R.C. columns and beams provide dowels on R.C. column and beams prior to pouring to match CHB wall reinforcement size and spacing. Dowels shall be 600 mm long unless noted otherwise.

4. Movement Gaps

- Where the top of CHB wall adjoins a beam provide 50 mm gap to be filled with a soft material like styrofoam.
- Where the sides of a CHB wall adjoin a column provide 50 mm gap to be filled with soft material like styrofoam. Rebars shall be retained for stability.

5. Anchors

Where columns and beams poured without the CHB wall dowels, provide 16 mm diameter expansion bolts to match CHB reinforcement spacing. These anchors shall be drilled and hammered in place. No chipping off of concrete columns and beams is allowed unless otherwise permitted by the Engineer.

901.3 Construction Requirements

901.3.1 Laying Concrete Masonry Units

901.3.1.1 Workmanship

Units shall be set plumb and true to line with level horizontal joints. Hollow units shall be laid with full mortar coverage on horizontal and vertical face shells, and at least 50 percent of the cells shall be filled with grout, the cells containing vertical reinforcements to be among those to be filled up. All cells of CHB walls from footing up to at least the ground floor level shall be filled up. Solid units shall be laid with full head and bed joints. Joints shall be uniform and approximately 10 mm wide unless otherwise indicated.

Unless otherwise shown on the drawings, joints of exterior concrete masonry units

that will be exposed and painted shall be cut flush and tooled finished with a 6.5 mm depth “V” joint for horizontal joints. Vertical joints between the horizontal joints shall be tooled flush. Joints of interior concrete masonry units shall be cut flush, and the blocks shall be given a cement plaster finish except as otherwise shown on the Drawings. The minimum of cement plaster shall be 10 mm.

901.3.1.2 Setting Embedded Items

All anchor bolts and miscellaneous metalwork embedded in masonry shall be set in accordance with setting plans or instructions furnished by trades supplying the metalwork. Care shall be exercised to insure that all anchors are completely surrounded by grout.

901.3.1.3 Masonry Lintels

The Contractor shall provide properly shored supports for construction of masonry lintels for opening in walls. Shoring shall not be removed for at least seven days after lintels are placed.

901.3.1.4 Placing Reinforcing Bars and Grouting

All reinforcing steel, except dowels in concrete, shall be accurately set in strict accordance with the Drawings and the notes thereon. Vertical steel shall be secured firmly in place by means of frames or other suitable devices. Horizontal steel may be placed as the work progresses. In any core containing reinforcement, the distance between any masonry and the reinforcement shall be at least 12.7 mm (1/2 in) at all points. The masonry contractor shall furnish all ties, spacers and supports required to hold steel in position during grouting. Cores shall be grouted in lifts not exceeding 1.22 m (4 ft) in height. Grout shall be thoroughly rodded. Splices in reinforcing bars shall be lapped at a distance sufficient to develop the stress in the bar, but not less than 40 bar diameters.

Concrete hollow blocks shall be laid with all cells completely grouted from the wall footing up to the ground level. The rest of the concrete hollow blocks above ground shall have at least 50 percent of the cells grouted, including those containing the vertical reinforcements.

901.3.1.5 Protection and Cleaning

Corners shall be protected from damage, with substantial board covers. Mortar or grout stains on masonry work shall be removed immediately. Any masonry work showing stains from mortar or concrete, or grout at completion of work, shall be replaced or the entire masonry surface sandblasted to provide uniform approved appearance. In cleaning the block, only stiff fiber brushes and wooden scrapers shall be used. Metal implements or acids shall not be used for cleaning blocks. All imperfect joining, nail holes, chipped edges of corners, and similar defects shall be corrected or replaced as directed.

901.4 Method of Measurement

All masonry works shall be measured in square meters installed complete with plastering, mortar and grout and installing reinforcing bars as shown on the drawing and prescribed in the specification.

901.5 Basis for Payments

The accepted quantities measured as prescribed in Sub-Section 901.4 shall be paid for at the appropriate contract unit price for the pay item listed below as shown in the Bill of Quantities, which price and payment shall be full compensation for furnishing all materials, including all form and false work; for mixing, placing, furnishing, and curing the concrete; and for all labor, materials, equipment, tools and incidentals to complete the item.

Payment shall be made under:

Pay Item Number	Description	Unit of Measurement
901 (1)	150 mm thick CHB Walls With Cement plaster finish	square meter (m ²)
902 (2)	100 mm thick CHB Walls With Cement plaster finish	square meter (m ²)

ITEM 1003 CARPENTRY

1003.1 Description

The work under this Item shall consist of furnishing all required materials, fabricated wood work, tools equipment and labor and performing all operations necessary for the satisfactory completion of all carpentry and joinery works in strict accord with applicable drawings, details and this Specifications.

1003.2 Material Requirements

1003.2.1 Lumber

Lumber of the different species herein specified for the various parts of the structure shall be well seasoned, sawn straight, sun dried or kiln dried and free from defects such as loose unsound knots, pitch pockets, sapwood, cracks and other imperfections impairing its strength, durability and appearance.

1003.2.1.1 Grade of Lumber and Usage

- a. Stress grade is seasoned, closed-grained and high quality lumber of the specified specie free from defects and suitable for sustaining heavy loads.

Stress grade lumber shall be used for wooden structural members subject to heavy loads, and sub- floor framing embedded or in contact with concrete or masonry.

- b. Stress grade lumber of the specified specie is generally of high quality, of good appearance, without imperfections, and suitable for use without waste due to defects and suitable also for natural finish. Select grade lumber shall be used for flooring, sidings, facia and base boards, trims, mouldings, millwork, railings, stairs, cabinet work, shelvings, doors, windows and frames of openings.
- c. Common grade lumber has minimum tight medium knot not larger than 25 mm. in diameter, with minimal imperfections, without sapwood, without decay, insect holes, and suitable for use with some waste due to minor defects and suitable also for paint finish. Common grade lumber shall be used for light framework for wall partitions, ceiling joist and nailers.

1003.2.1.2 Lumber Species and Usage

Unless otherwise specified on the Plans, the following lumber species shall be used as indicated:

- a. **Yacal** (stress grade) for structural member such as post, girders, girts, sleepers door and window frames set or in contact with concrete or masonry.
- b. **Guijo** (select grade) for door and window frames set in wooden framework, for stairs, for roof framing supporting ceramic or cement tiles, floor joist and

other wooden structural parts.

- c. **Apitong** (common grade) for roof framing supporting light roofing materials such as galvanized iron, aluminum or PVC sheets, for wall framing, ceiling joist, hangers and nailers.
- d. **Tanguile** (select grade) for doors and windows, facia and base boards, trims, mouldings, millwork, railings, stairs, cabinet work, shelvings, flooring and siding.
- e. **Narra** (select grade) for stair railings, flooring boards, wall panels, base boards, trims, mouldings, cabinet work, mill work, doors and windows when indicated as such in the Plans.
- f. **Dao** (select grade) for parts of the structure as enumerated under Section 1003.2.1.2 (e), when indicated as such on the Plans.

1003.2.1.3 Moisture Content

Rough lumber for framing and siding boards shall be air-dried or sun-dried such that its moisture content shall not exceed 22 percent. Dressed lumber for exterior and interior finishing, for doors and windows, mill work, cabinet work and flooring boards shall be kiln-dried and shall not have a moisture content in excess of 14 percent at the time of installation in the structure.

1003.2.1.4 Substitution in Lumber Specie

Any lumber equally good for the purpose intended may be substituted for the specific kind subject to the prior approval of the Engineer, provided the substitution shall be of equal or better specie acceptable to the Engineer. In case of substitution with better specie, no additional cost therefore shall be allowed to the Contractor.

1003.3 Construction Requirements

1003.3.1 Quality of Materials

All materials to be incorporated in the carpentry and joinery works shall be of the quality specified under Section 2. Before incorporation in work, all materials shall have been inspected/ accepted by the Engineer or his authorized representative.

1003.3.2 Storage and Protection of Materials

Lumber and other materials shall be protected from dampness during and after delivery at the site. Materials shall be delivered well in advance of actual need and in adequate quantity to prelude delay in the work. Lumber shall be piled in orderly stack at least 150 mm. above ground and at sheltered place where it will be of least obstruction to the work.

1003.3.3 Shop Drawings

Shop drawings complete with essential dimensions and details of construction, as may be required by the Engineer in connection with carpentry and joinery work, shall be submitted for approval before proceeding with the work.

1003.3.4 Rough Carpentry

Rough carpentry covers timber structural framing for roof, flooring, siding, partition and ceiling.

- a. Framing shall be stress grade or common grade lumber of the specie specified under Section.

- b. Rough carpentry shall be done true to lines, levels and dimensions. It shall be squared, aligned, plumbed and well fitted at joints.
- c. Trusses and other roof framing shall be assembled, fitted and set to exact location and slope indicated on the Plans.
- d. Fasteners, connectors and anchors of appropriate type and number shall be provided and fitted where necessary.
- e. Structural members shall not be cut, bored or notched for the passage of conduits or pipes without prior approval of the Engineer. Members damaged by such cutting or boring shall be reinforced by means of specifically formed and approved steel plates or shapes, otherwise, damaged structural members shall be removed and replaced to the satisfaction of the Engineer.
- f. Timber framing in contact with concrete or masonry shall be treated with termite-proofing solution and after drying coated with bituminous paint.

1003.3.5 Finished Carpentry

Finished carpentry covers works on flooring, siding and ceiling board, stairs, cabinets, fabricated woodwork, millwork and trims

- a. Framing lumber shall be select grade, free from defects and where exposed in finished work, shall be selected for color and grain.
- b. Joints of framing shall be tenoned, mortised or doweled where suitable, closely fitted and secured with water resistant resins glue. Exterior joints shall be mitered and interior angles coped.
- c. Panels shall be fitted, allow for contraction or expansion and insure that the panels remain in place without warping, splitting and opening of joints.
- d. Fabricated woodwork shall be done preferably at the shop. It shall be done true to details and profiles indicated on the Plans. Where set against concrete or masonry, woodwork shall be installed when curing is completed
- e. Exposed wood surfaces shall be free from disfiguring defects such as raised grains, stains, uneven planing, sanding, tool marks and scratches. Exposed surfaces shall be machine or hand sanded to an even smooth surface, ready for finish.

1003.4 Method of Measurement

All carpentry actually installed shall be measured and determined by Subsections 1003.3.3 and 1003.3.5 as provided in the Bill of Quantities accepted to the satisfaction of the Engineer.

1003.5 Basis of Payments

The Items measured and determines as provided in subsection 1003.4 shall be paid for at the unit bid price which payment constitute full compensation of material, labor and incidentals necessary to complete this item.

Payment shall be made under:

Pay Item Number	Description	Unit of Measurement
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1003 (a)	Rough carpentry (framing, Roof, flooring, partition, ceiling)	square meter
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ITEM 1010 WOODEN DOORS

1010.1 Description

This Item shall consist of Furnishing all materials, hardware, plant, tools, labor and services necessary for complete fabrication and installation of wooden doors and window of the type and size as shown on the Plans and in accordance with the following specifications and applicable specifications under Item 1003 on Carpentry and Joinery Works.

1010.2 Material Requirements

1010.2.1 Lumber

Lumber of doors, window and jambs, and panels when required, shall be kiln-dried with moisture content of not more than 14% and shall be of the specie indicated on the Plans and/ or specified under Item 1003 on Carpentry and Joinery Works.

1010.2.2 Adhesive

Adhesive shall be water resistant resins and shall be non-staining.

1010.2.3 Hardware

Hardware shall be as specified under Item 1004 on Building Hardware.

1010.3 Construction Requirements

1010.3.1 Fabrication

Wooden doors and windows, including frames, shall be fabricated in accordance with the designs and size shown on the Plans. The fabricated products shall be finished square, smooth sanded and free from damage or warping.

a. Panel Doors

Stiles and rails of panel doors shall have a minimum thickness of 44 mm. and width of 140 mm.

Rails minimum thickness of 44 mm and width of 140 mm. Rails shall be framed to stiles by mortise and tenon joints. Rabbets or grooves of stiles and rails to receive panels shall be 6.5 mm. wide and 20 mm. deep. Integral mouldings formed on both faces of stiles and rails framing the panels shall be true to shape and well defined. Intersections of mouldings shall be mitered and closely fitted.

Panels of the same species and having a minimum thickness of 20 mm. shall be beveled around its edges up to a minimum width of 50 mm. both faces. The beveled edges shall closely fit into the groove of stiles and rails, but free to move to prevent splitting when shrinkage occurs.

b. Door Frames

Framing of the specie(s) specified under Item 1003 shall be fabricated in conformity with the profile and sizes shown on the Plans. Frames shall be

assembled with tightly fitted tongue and groove joint mitered at both sides and nailed. The assembled frames shall be finished square and flat on the same plane. Assembled frames shall be braced temporarily to prevent their distortion during delivery to the site and installation.

1010.3.2 Installation

- a. Frames shall be set plumb and square in concrete/ masonry work or framework of walls or partitions. Frames set in concrete or masonry shall be painted with hot asphalt at its contact surface and provided with two rows of common wire nails 100 mm. long for anchorage. The nails shall be staggered and spaced at 300 mm. on center along each row. Frame set in concrete shall be installed in place prior to concrete work.

Frames set in masonry work may be installed after laying of hollow concrete blocks, bricks or adobe. Space between frames and masonry shall be fully filled with cement mortar proportioned 1:3.

- b. Hinged Doors

Hinged doors, whether panel or flush type with standard height of 2100 mm. and width of not more than 900 mm. shall be hung with four loose-pin butt hinges, 100 mm. x 100 mm. Swing out exterior doors shall be hung with four fast-pin butt hinges. Two hinges shall be fitted 150 mm. from top and bottom edge of door. The other two hinges shall be fitted at third points between top and bottom hinges. Care should be taken to ensure that the hinges are fitted such that their pins are aligned for ease of pin insertion and smoothness of operation. For added smoothness pins should be lightly greased. Hammering of hinges to attain proper alignment shall not be allowed.

For wider and heavier doors such as narra panel doors, an additional hinge shall be fitted 100 mm. below the top hinge to counteract the door tilting action.

Mounting screws shall be screwed in place in their entire length, not forced into place by hammering. Hammering of screw into place shall not be permitted.

- c. Lock Installation

Locks of doors shall be fitted at the same height, centered 1000 mm. above the finished floor level. Locks shall be installed in conformity with the templates and instructions supplied with locksets. Holes for mounting locks shall be properly formed to provide snug fit and rigid attachment of the locks to the doors. Strike plates shall be fitted on the door frame in true alignment with the lock latch.

1010.4 Method of Measurement

Frames of doors and windows shall be measured and paid for on the basis of number of sets completely installed and accepted by the Engineer.

Doors and windows shall be measured and for based on the number of square meters or set involved in the completed and accepted installation. Payment per square meter shall include cost of required hardware and all incidental expenses, but exclusive of locks for doors. Locks shall be paid for per set completely installed.

1010.5 Basis of Payment

The different pay items under Wooden Doors and Windows shall be designated the following number, description and unit of measure.

Payment shall be made under;

Pay Item Number	Description	Unit of Measurement
1010 (a)	Frames (Jambs, sills, head transoms and mullions)	set
1010 (b)	Doors (Flush or Panel)	set
1010 (d)	Door Locks	set

ITEM 1014 PREPAINTED METAL SHEETS

1014.1 Description

This item shall consist of furnishing all pre-painted metal sheet, materials, tools and equipment, plant including labor required in undertaking the proper installation complete as show on the Plans and in accordance with this Specification.

1014.2 Material Requirements

All material metal sheet and roofing accessories shall be oven baked painted true to profiles indicated on the Plans.

1014.2.1 Pre-Painted Roofing Sheets

Pre-painted roofing sheets shall be fabricated from cold rolled galvanized iron sheets specially tempered steel for extra strength and durability. It shall conform to the material requirements defined in PNS 67:1985. Profile section in identifying the architectural molded rib to be used are as follows: regular corrugated, Quad-rib, Tri- wave, Rib-wide, twin-rib, etc. Desired color shall be subject to the approval of the Architect/Engineer.

1014.2.2 Gutters, Valleys, Flashing Hip and Ridge

Gutters, Valleys, Flashing Hip and Ridge roll shall be fabricated from gauge 24 (.600 mm thick) cold-rolled plain galvanized iron sheets specially tempered steel. Profile section shall be as indicated on the Plans.

1014.2.3 Fastening hardware

Fastening hardware shall be of galvanized iron straps and rivets. G.I. straps are of .55 mm thick x 16 mm wide x 267 mm long (gauge 26 x 5/8" x 10-1/2") and standard rivets.

1014.2.4 Base metal thickness

Base metal thickness shall correspond to the following gauge designation available locally as follows:

a)	<u>Base Metal Thickness</u>	<u>Designated Gauge</u>
	.400 mm thick	Gauge 28
	.500 mm thick	Gauge 26

.600 mm thick	Gauge 24
.800 mm thick	Gauge 22

- b) Protective Coatings Thickness
1. Zinc 34.4 microns
(244 gm/m²)
 2. Paint coatings
 - Top coat 15.20 microns
 - Bottom coat 6.8 microns
- c) Overall thickness with protective coats
- | | |
|---------|-------------|
| .400 mm | .428-451 mm |
| .500 mm | .532-651 mm |
| .600 mm | .638-651 mm |
- d) Length of roofing sheets – available in cut to length long span length up to 18.29 meters.
- e) Special length and thickness are available by arrangements.

1014.3 Construction Requirements

Before any installation work is commenced, the Contractor shall ascertain that the top face of the purlins are in proper alignment. Correct the alignment as necessary in order to have the top faces of the purlins on an even plane.

1014.3.1 Handling/Lifting/Positioning of Sheets

Sheets shall be handled carefully to prevent damage to the paint coating. Lift all sheets packs on to the roof frame with the overlapping down-turned edge facing towards the side of the roof where installation will commence, otherwise sheets will have to be turned end-to-end during installation.

1014.3.2 Installation Process

1. Start roofing installation by placing the first sheet in position with the downturned edge in line with other building elements and fastened to supports as recommended.
2. Place the downturned edge of the next sheet over the edge of the first sheet, to provide side lap and hold the side lap firmly in place. Continue the same procedure for subsequent sheets until the whole roofing area is covered and/or (Adopt installation procedure provided in the instruction manual for each type of Architectural molded rib profile section.)
3. For walling applications follows the procedure for roofing. Allow a minimum end of 100 mm (4") for vertical walling.

1014.3.3 Gutters, Valleys, Flashing ridge and Hip rolls

Gutters, valleys, flashing ridge and hip rolls be fastened where indicated on the Plans by self-tapping screws or galvanized iron straps and rivets.

1014.3.4 End Laps

In case handling or transport consideration requires to use two or more end lapped sheets to provide full length coverage for the roof run, install each line of sheets from bottom to top

or form eave line to apex of roof framing. Provide 150 mm minimum end lap.

1014.3.5 Anchorage/Fastening

1. Pre-painted steel roofing sheets shall be fastened to the wood purlins with standard length G.I. straps and rivets.
2. For steel frame up to 4.5 mm thick use self-drilling screw No. 12 by 35 mm long hexagonal head with neoprene washer.
3. For steel support up to 5 mm thick or more use thread cutting screw No. 12 by 40 mm long hexagonal head with neoprene washer.
4. Side lap fastener use self-drilling screw No. 10 by 16 mm long hexagonal head with neoprene washer.
5. Valley fastened to lumber and for walling use self-drilling wood screw No. 12 by 25 mm long hexagonal head with neoprene washer.
6. Valleys fastened to steel supports use self-drilling screws, hexagonal head with neoprene washer. Drill size is 5 mm diameter.

1014.3.6 Cutting of Sheets

In cutting pre-painted steel roofing sheets and accessories to place the already installed or laid in position, the area around holes or cuts shall be masked to shield the paint from hot fillings.

1014.3.7 Storage and Protection

Pre-painted steel roofing, walling products and accessories should be delivered to the jobsite in strapped bundles. Sheets and/or bundles shall be neatly stacked in the ground and it left in the open it shall be protected by covering the stack materials with loose tarpaulin.

1014.4 Method of Measurement

The work done under this item shall be measured by actual area covered or installed with pre-painted steel roofing and/or walling in square meters and accepted to the satisfaction of the Engineer/Architect.

1014.5 Basis of Payment

The area of pre-painted steel roofing and/or walling in square meters as provided in Section 1014 shall be paid for at the bid or contract unit price which payment shall constitute full compensation including labor, materials, tools and incidents necessary to complete this item.

Payment shall be made under:

Pay Item Number	Description	Unit of Measurement
1014 (a)	Pre-painted metal sheets	m ²

ITEM 1032 PAINTING, VARNISHING AND OTHER RELATED WORKS

1032.1 Description

This Item shall consist of furnishing all paint materials, varnish and other related products, labor, tolls, equipment and plant required in undertaking the proper application on painting, varnishing and

related works indicated on the Plans and in accordance with this Specification.

1032.2 Material Requirements

1032.2.1 Paint materials

All types of paint material, varnish and other related product shall be subject to random test as to material composition by the Bureau of Research and Standard, DPWH or the National Institute of Science and Technology. (Use the following approved and tested brand name: Boysen, Davies, Dutch Boy, Fuller O Brien, or any approved equal).

1032.2.2 Tinting Colors

Tinting color shall be first grade quality, pigment ground in alkyd resin that disperses and mixes easily with paint to produce the color desired. Use the same brand of paint and tinting color to effect good paint body.

1032.2.3 Schedule

Exterior Finishes

a.	Plain cement plastered finish to be painted	3 coats Acrylic base masonry paint
b.	Concrete exposed aggregate and/or tool finish	1 coat water repellent
c.	Ferrous metal	1 coat primer and 2 coats enamel paint
d.	Galvanized metal	1 coat zinc chromate primer and 2 coats Portland cement paint
e.	Wood painted finish	3 coats oil based paint
f.	Wood varnished finish	varnish water repellent

Interior Finishes

a.	Plain cement plastered finish to be painted	3 coats Acrylic base masonry paint
b.	Concrete exposed aggregate and/or tool finish	Clean surface
c.	Ferrous metal	1 coat primer and 2 coats enamel paint
d.	Woodwork sea-mist	3 coats of 3 parts thinner 1 part lacquer
e.	Wood varnish	1 st coat, of one part sanding sealer to one part solvent, 2 nd coat 2/3 sanding sealer to 1/3 solvent
f.	Wood painted finish	3 coats oil based paint
g.	Ceiling boards textured finish	1 coat oil based paint allow to dry then patch surfaces unevenness and apply textured paint coat

1032.3 Construction Requirements

The Contractor prior to commencement of the painting, varnishing and related work shall examine the surfaces to be applied in order not to jeopardize the quality and appearances of the painting varnishing and related works.

1032.3.1 Surface Preparation

All surfaces shall be in proper condition to receive the finish. Woodworks shall be hand-sanded smooth and dusted clean. All knot-holes pitch pockets or sappy portions shall be sealed

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

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

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

Metal shall be clean, dry and free from millscale and rust. Remove all grease and oils from surfaces. Wash unprimed galvanized metal with etching solution and allow it to dry. Where required to prime coat surface with red lead primer same shall be approved by the Engineer.

In addition the Contractor shall undertake the following:

1. Voids, cracks, nick etc. will be repaired with proper patching material and finished flushed with surrounding surfaces.
2. Marred or damaged shop coats on metal shall be spot primed with appropriate metal primer.
3. Painting and varnishing works shall not be commenced when it is too hot or cold.
4. Allow appropriate ventilation during application and drying period.
5. All hardware will be fitted and removed or protected prior to painting and varnishing works.

1032.3.2 Application

Paints when applied by brush shall become non-fluid, thick enough to lay down as adequate film of wet paint. Brush marks shall be flushed out after application of paint.

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

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

1032.3.3 Mixing and Thinning

At the time of application paint shall show no sign of deterioration. Paint shall be thoroughly stirred, strained and kept at a uniform consistency during application. Paints of different manufacture shall not be mixed together. When thinning is necessary, this may be done immediately prior to application in accordance with the manufacturer's directions, but not in excess of 1 pint of suitable thinner per gallon of the paint.

1032.3.4 Storage

All material to be used under this item shall be stored in a single place to be designated by the Engineer and such place shall be kept neat and clean at all time. Necessary precaution to avoid fire must be observed by removing oily rags, waste, etc. at the end of the daily work.

1032.3.5 Cleaning

All cloths and cotton waste which constitute fire hazards shall be placed in metal containers or destroyed at the end of daily works. Upon completion of daily work, all staging, scaffolding and paint containers shall be removed. Paint drips, oil, or stains on adjacent surfaces shall be removed and the entire job left clean and acceptable to the Engineer.

1032.3.6 Workmanship in General

- a. All paints shall be evenly applied. Coats shall be of proper consistency and well brushed out so as to show a minimum of brush marks.
- b. All coats shall be thoroughly dry before the succeeding coat is applied.
- c. Where surfaces are not fully covered or cannot be satisfactorily finished in the number of coats specified such preparatory coats and subsequent coats as may be required shall be applied to attain the desired evenness of surface without extra cost to the owner.
- d. Where surface is not in proper condition to receive the coat the Engineer shall be notified immediately.

Work on the questioned portion(s) shall not start until clearance be proceed is ordered by the Engineer.

- e. Hardware, lighting fixture and other similar items shall be removed or protected during the painting varnishing and related work operations and re-installed after completion of the work.

1032.4 Method of Measurement

The areas of concrete, wood and metal surfaces applied with varnish, paint and other related coating materials shall be measured in square meters as desired and accepted to the satisfaction of the Engineer.

1032.5 Basis of Payment

The accepted work shall be paid at the unit bid price, which price and payment constitute full compensation for furnishing all materials, labor, equipment, tools and other incidental necessary to complete this Item.

Payment will be made under:

Pay Item Number	Description	Unit of Measurement
1032 (a)	Painting works	square meter (sq.m.)

ELECTRICAL WORKS

ITEM 1100 CONDUITS, BOXES & FITTINGS

1100.1 Description

This Item shall consist of the furnishing and installation of the complete conduit work consisting of electrical conduits; conduit boxes such as junction boxes, utility boxes, octagonal and square boxes; conduit fittings such as couplings, locknuts and bushing and other electrical materials needed to complete the conduit roughing-in works.

1100.2 Material Requirements

All materials shall be brand new and shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the Philippine Standard Agency (PSA) mark. The electrical materials to be used shall be of the standard products of the manufacturers regularly engaged in the

production of equipment and materials required for this project and shall be the manufacturer's latest standard design that complies with the specification requirements. The Contractor shall submit for approval a complete description of all materials and equipment to be used before commencing the work. The descriptions shall include catalogue numbers, illustrations, diagrams, dimensional data, etc., as required to describe fully the materials.

Conduits

- (a) Rigid Steel Conduit shall be electrical metal tubing (EMT) conduit, hot dip galvanized, conforming to ANSI Standard C80.1, or "American Standard Specifications for Steel Conduit, zinc coated" unless shown otherwise in the drawings. The conduit fittings and covers shall be galvanized, threaded, or cadmium plated, grey iron or malleable iron castings. Composite rubber gasket shall be provided in all openings requiring covers. Outlets and pull boxes shall be of the sizes and types shown in the Plan.
- (b) Rigid PVC Conduit shall be NEMA TC2, type EPC-PVC and shall be schedule 40. Enamel coated steel conduits and conduits with rough inner surfaces are not acceptable.

Conduit Boxes and Fittings

All conduit boxes and fittings shall be Code gauge steel and galvanized. Outlet boxes and fittings shall be galvanized pressed steel of standard make. In general, outlet boxes shall be at least 100 mm. square or octagonal, 53 mm. deep and 16 mm. minimum gauge.

1100.3 Construction Requirement

All works throughout shall be executed in the best practice in a workmanlike manner by qualified and experienced electricians under the immediate supervision of a duly licensed Electrical Engineer.

Conduits

Conduits should be cut square with hacksaw and ends reamed. Running or non-tapered threads shall not be used. Each run of conduit between boxes or equipment shall be electrically continuous. Threads shall conform to the American Standard for tapered pipe threads. In making bends only conduit bending apparatus will be used. The use of a pipe tee or vise for bending conduits shall not be permitted. Conduits entering slip holes in boxes shall be secured with a locknut on each side of the box wall and terminated with a bushing.

All joints between lengths of conduits and threaded connections to boxes, fittings and equipment enclosures shall be made watertight. Conduits shall be sloped towards drain points. Conduits shall be rigidly supported and braced to avoid shifting during placement of concrete. Conduits extending out of floors, walls, or beams shall be at right angles to the surfaces.

Spacing of conduits shall be such as to permit the flow of concrete between them. A minimum spacing of not less than 5 cm. shall be maintained, except where conduits enter boxes. Where conduits are placed in two or more layers or rows, the conduits in the upper or inner layers shall be placed directly over or behind the lower or outer layers, respectively.

Conduits terminating at the face of concrete for initial or future extensions as exposed runs shall be terminated with plugged couplings set flush with the floor, ceilings or wall. Galvanized iron plugs shall be provided for conduits, which are to be extended in the future. Where it is not practical to employ flush couplings, the conduit ends shall be suitably boxed or otherwise protected and plugged.

Conduits running in floors and terminating at motors or other equipment mounted on concrete bases shall be brought up to the equipment within the concrete base wherever possible. Conduit boxes shall be flush with the finished wall with covers and openings easily accessible. The Contractor shall remove and reset all boxes not properly installed or shifted out of line during concreting to the satisfaction of the Engineer.

Conduit Boxes & Fittings

Each outlet in the drawing or raceway system shall be provided with an outlet box to suit the conditions encountered. Boxes for exposed work or in wet locations shall be of the cast metal type having threaded hubs. Boxes for concealed work shall be the cadmium-plated or zinc-coated sheet metal type. Each box shall have sufficient volume to accommodate the number of conductors entering the box. Boxes shall not be less than 50 mm deep unless shallower boxes are required by structural conditions that are specifically approved by the Engineer. Ceiling and bracket outlet boxes shall not be less than 100 mm octagonal except that smaller boxes may be used where required by the particular fixtures to be installed. Switch and receptacle boxes shall be approximately 100 mm x 50 mm x 50 mm. Telephone outlets shall be 100 mm square except that 100 mm x 54 mm x 40 mm boxes may be used where only one raceway enter the outlet. Boxes installed in concealed locations shall be set flush with the finished surfaces and shall be provided with the proper extension rings or plaster covers where required. Boxes shall be installed in a rigid and satisfactory manner and shall be supported by bar hangers in frame construction, or shall be fastened directly with wood screws on wood. Location of outlets shown on the drawings are approximates; the Contractor shall study the building plans in relation to the spaces and equipment surrounding each outlet so that the lighting fixtures are symmetrically located according to the room layout. When necessary, with the approval of the Consultant, outlets shall be relocated to avoid interference with mechanical equipment or structural features.

Conduit Boxes & Fittings

Provide conduit boxes for pulling and splicing wires and outlet boxes for installation of wiring devices. As a rule, provide junction boxes or pull boxes in all runs greater than 30 meters in length, for horizontal runs. For other lengths, provide boxes as required for splices or pulling. Pull boxes shall be installed in conspicuous but accessible locations.

Support boxes independently of conduits entering by means of bolts, rod hangers or other suitable means.

Conduit boxes shall be installed plumb and securely fastened. They shall be set flush with the surface of the structure in which they are installed where conduits are run concealed.

All convenience and wall switch outlet boxes for concealed conduit work shall be deep, rectangular flush type boxes. Four inch octagonal flush type boxes shall be used for all ceiling light outlets and shall be of the deep type where three or more conduits connect to a single box

Floor mounted outlet boxes required shall be waterproof type with flush brass floor plate and brass bell nozzle.

All boxes shall be painted with anti-rust red lead paint after installation. All conduits shall be fitted with approved standard galvanized bushing and locknuts where they enter cabinets and conduit boxes.

Junction and pull boxes of code gauge steel shall be provided as indicated or as required to facilitate the pulling of wires and cables.

1100.4 Method of Measurement

The work under this Item are inclusive in Item 1101 (Wires and Wiring Devices) and shall be measured either by lengths, pieces, pairs, lot and actually placed and installed as shown on the Plans.

1100.6 General Specifications

The work to be done under this division of specifications consist of the fabrication, furnishing, delivery and installation, complete in all details of the electrical work, at the subject premises and all work materials incidental to the proper completion of the installation, except those portions of the work which are expressly stated to be done by other fields. All works shall be done in accordance with the rules and regulations and with the specifications.

1100.7 Specifications on:

1. Lightning Fixtures and Lamp

All lightning fixtures and lamps shall be Light Emitting Diode(LED) type as specified and listed on the Lighting Fixture Schedule and shall be furnished and installed complete.

Fixtures are designated by letters and illustrations shall be indicative of the general type desired and shall not restrict selection to fixtures of any particular manufacturer. Fixtures of similar design and equivalent light distribution and brightness characteristics having equal finish and quality may be acceptable but subject to the approval of the Engineer.

2. Material Requirements

All materials to be used shall conform to the BPS specification

3. Construction Requirements

All grounding system installation shall be executed in accordance with the approved plans.

Grounding system shall include building perimeter ground wires, ground rods, clamps, connectors, ground wells and ground wire taps as shown in the approved design.

1100.8 Auxiliary Systems

All auxiliary systems such as telephone and intercom system, time clock system, fire alarm system and public address/paging system installations shall be done in accordance with the approved design.

All materials to be used shall conform to the Bureau of Product Standards (BPS) specifications.

1100.9 Important requirement regarding supervision of the work and submission of certificate of completion. All wiring installation herein shall be done under the direct supervision of a licensed Electrical Engineer at the expense of the Contractor. The Contractor shall submit the request for the Clearance to Proceed duly approved by the owner's representative.

1100.10 Test and Guarantee

Upon completion of the electrical construction work, the Contractor shall provide all test equipment and personnel and to submit written copies of all test results. The Contractor shall guarantee the electrical installation are done and in accordance with the approved Plans and specification. The Contractor shall guarantee that the electrical system are free from all grounds from all defective workmanship and materials and will remain so for a period of one year from date and acceptance of works. Any defect shall be remedied by the Contractor at his own expense.

ITEM 1101 WIRES AND WIRING DEVICES

1101.1 Description

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

1101.2 Material Requirements

Wires and cables shall be of the approved type meeting all the requirements of the Philippine Electrical Code and bearing the PSA mark unless specified or indicated otherwise, all power and lighting conductor shall be insulated for 600 Volts. All wires shall be copper, soft drawn and annealed, smooth and cylindrical form and shall be centrally located inside the insulation. All

wiring devices shall be standard product of reputable electrical manufacturers. Wall switches shall be rated at least 10A, 250 Volts and shall be spring operated, flush, tumbler type. Duplex convenience receptacles shall be rated at least 15A, 250 Volts, flush, parallel slot single heavy duty receptacles shall be rated at least 20 A, 250 Volts, wire, flush, polarize type.

Conductors in conduits shall be moisture and heat-resistant rubber or thermoplastic insulated. In dry locations, wires and cables shall be type THW for sizes 8 mm. and smaller and type THW or THHN for sizes 14 sq. mm. and larger. In damp or wet locations as defined by the Philippine Electric Code, wires and cables shall be type THW. All conductors shall have 600 volts insulation unless otherwise specified in the drawings. Wire shall be stranded copper for 5.5 mm. diameter and larger sizes. Wires for the telephone and signaling systems shall be twisted telephone wires, thermoplastic insulated. The number and sizes shall be as specified in the drawings.

1101.3 Construction Requirements

Conductors of wires shall not be drawn in conduit until after the cement plaster is dry and the conduits are thoroughly cleaned and free from dirt and moisture. In drawing wires into conduits, sufficient slack shall be allowed to permit easy connection for fixtures, switches, receptacles and other wiring devices without the use of additional splice:

All conductors of convenience outlets and lighting branch circuit home runs shall be wired with a minimum of 3.5 mm. in size. Circuit homeruns to panel boards shall not be smaller than 3.5 mm. but a homerun to panel board more than 30 meters shall not be smaller than 5.5 mm. No conductor shall be less than 2 mm. in size.

All wires of 14 mm. and larger in size shall be connected to panel and apparatus by means of approved type lugs or connectors of the solderless type, sufficiently large enough to enclose all strands of the conductors and securely fasten. They shall not loosen under vibration of normal strain.

All joints, taps and splices on wires larger than 14 mm. shall be made of suitable solderless connectors of the approved type and size. They shall be taped with rubber and PVC tapes providing insulation no less than that of the conductors.

No splices or joints shall be permitted in either feeder or branch conductors except within outlet boxes or accessible junction boxes (pull boxes). All joints in branch circuit wiring shall be made mechanically and electrically secured by approved splicing devices taped with rubber and PVC tapes in a manner which will make their insulation as that of the conductor.

All wall switches and receptacle shall be fitted with standard bakelite face plate covers. Device plate for flush mounting shall be installed with all four edges in continuous contact finished wall surfaces without the use of coiled wire or similar devices. Plaster fillings will not be permitted. Plate installed in wet locations shall be gasketed.

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

1101.3.1 Quality Assurance Provisions

All installation shall be completed on or before final acceptance of the project including the tests and commissioning. Equipment shall be demonstrated to operate in accordance with the requirements of this specification. The Contractor shall furnish all instruments, tools and personnel required for the tests. As an exception to requirements that may be stated elsewhere in the contract agreement, the Engineer shall be given five (5) working days notice prior to each test. All defects disclosed as a result of such test that are due to the Contractor and shall be remedied to the satisfaction of the Engineer.

(a) Devices subject to Manual Operation

Each device subject to manual operation shall be tested five (5) times demonstrating satisfactory operation each time.

(b) Test on 600 Volts Wiring

Test of all 600 volts wiring to verify that no circuits or accidental grounds exist. Perform insulation resistance test on all wiring using an instrument which apply a voltage of approximately 500 volts to provide a direct reading of resistance; minimum resistance shall be 250,000 ohms that the resistance to ground is not excessive. Test each ground rod for resistance to ground before making any connections to the rod, then tie entire grounding system together and test for resistance to ground. Make resistance measurements in normally dry weather condition, not less than 48 hours after rainfall. Submit written results of each test to the Engineer and indicate the locations of the rod as well as the resistance and soil conditions at the time of the measurements were made.

1101.4 Method of Measurement

The work under this Item shall be measured either by meters, rolls, pieces, set, actually placed and installed as shown on the Plans.

1101.5 Basis of Payment

All work performed and measured and as provided for in his Bill of Quantities shall be paid for at the Unit Bid or contract unit price which payment shall constitute full compensation including labor, materials, tools and incidentals necessary to complete this Item.

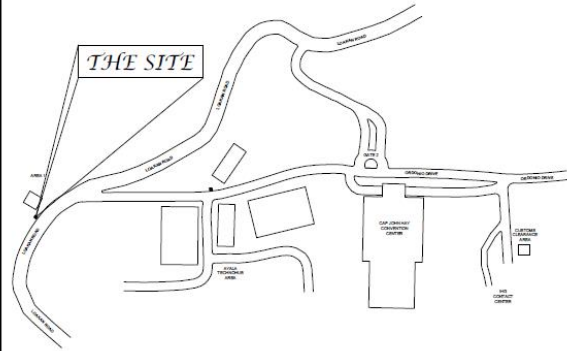
Payment shall be made under:

Pay Item Number	Description	Unit of Measurement
1101 (1)	Electric wire (size), conduits with Fittings	meter
1101 (2)	Single pole tumbler switch	set
1101 (3)	Two-gang Tumbler switch	set
1101 (4)	Three-gang Tumbler switch	set
1101 (5)	Duplex convenience outlet	set
1101 (6)	Heavy duty convenience receptacle	set
1101 (7)	Standard Telephone outlet Bakelite cover	set
1101 (8)	Bare copper wire	meters
1101 (9)	Grounding clamp for electric wire	pieces
1101 (10)	Service entrance assembly with Reinforced concrete Pedestal pole With anchor bolt	pole
1101 (11)	Meter base assembly exposed rigid RCP with weather cap & grounding rod copper weld 20 mm. diameter x 3 m.	set

Section VII. Drawings

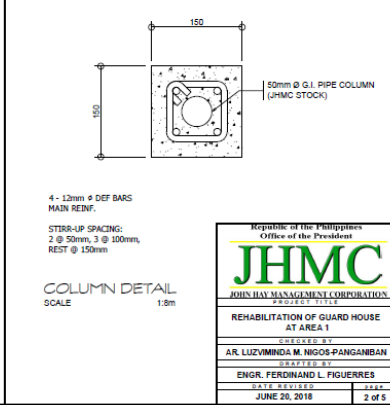
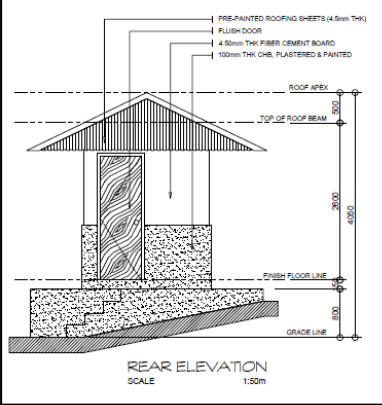
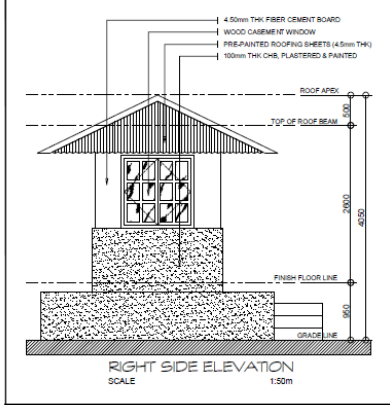
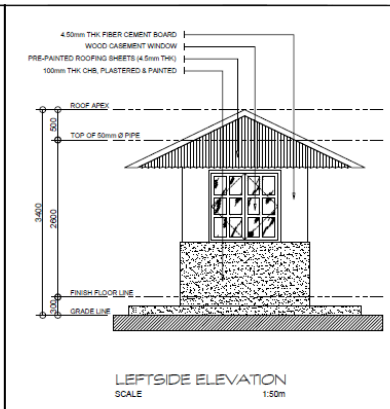
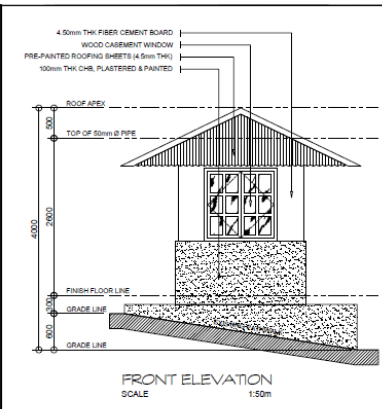
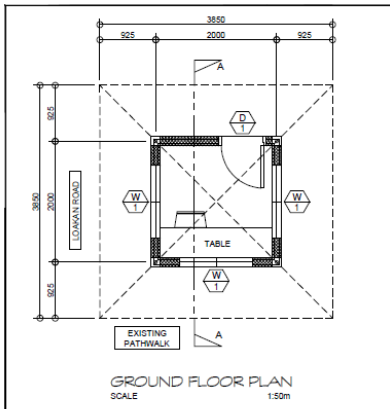


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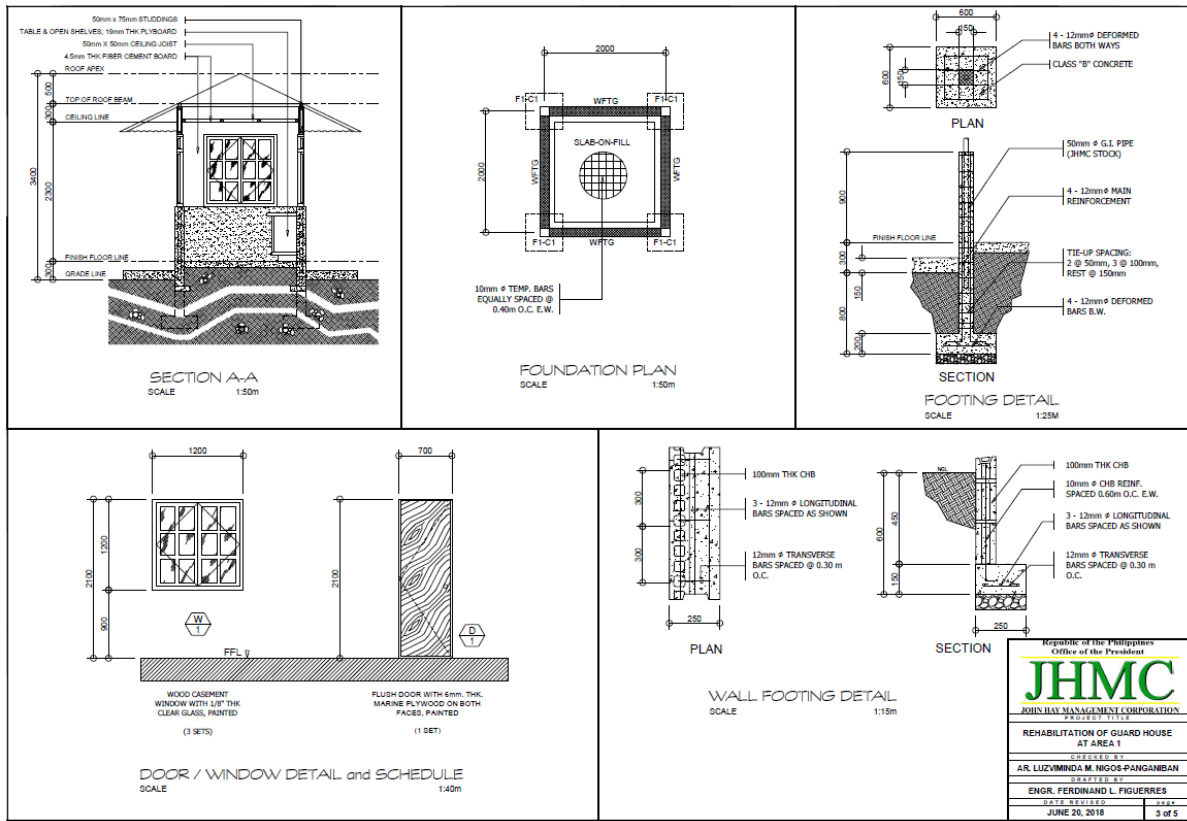


VICINITY MAP

Republic of the Philippines Office of the President JHMC JOHN HAY MANAGEMENT CORPORATION	
REHABILITATION OF GUARD HOUSE AT AREA 1	
DESIGNED BY AR. LUZVIMINDA M. NIGOS-PANGANBAN	
CHECKED BY ENGR. FERDINAND L. FIGUERRRES	
DATE PREPARED	DATE
JUNE 20, 2018	1 of 5



Republic of the Philippines Office of the President JHMC JOHN HAY MANAGEMENT CORPORATION	
REHABILITATION OF GUARD HOUSE AT AREA 1	
DESIGNED BY AR. LUZVIMINDA M. NIGOS-PANGANBAN	
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DATE PREPARED	DATE
JUNE 20, 2018	2 of 5



Republic of the Philippines
Office of the President

JHMC
JOHN HAY MANAGEMENT CORPORATION

PROJECT TITLE
REHABILITATION OF GUARD HOUSE
AT AREA 1

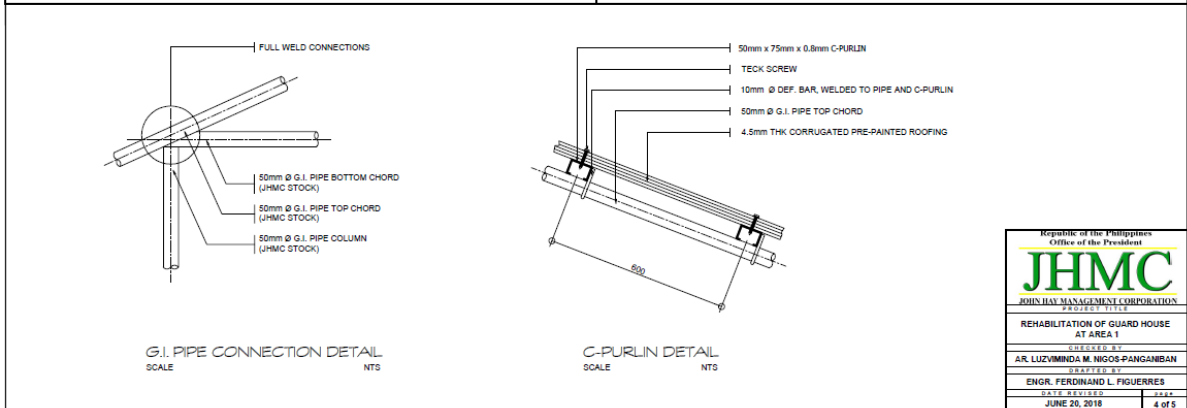
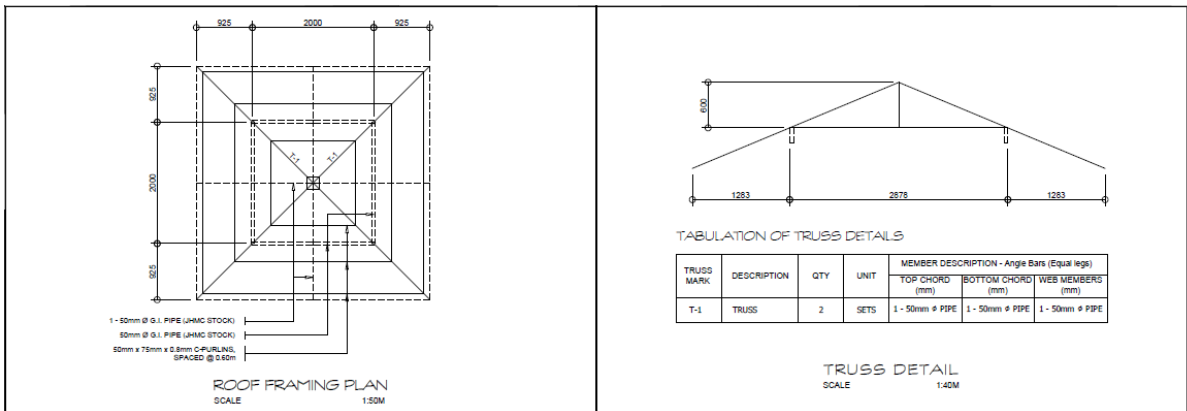
DESIGNED BY
AR. LUZYMINDA M. INOCOS-PANGAMBAN

DRAWN BY
ENGR. FERDINAND L. FIGUERRAS

CHECKED BY
JULY 2018

DATE
JUNE 20, 2018

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Republic of the Philippines
Office of the President

JHMC
JOHN HAY MANAGEMENT CORPORATION

PROJECT TITLE
REHABILITATION OF GUARD HOUSE
AT AREA 1

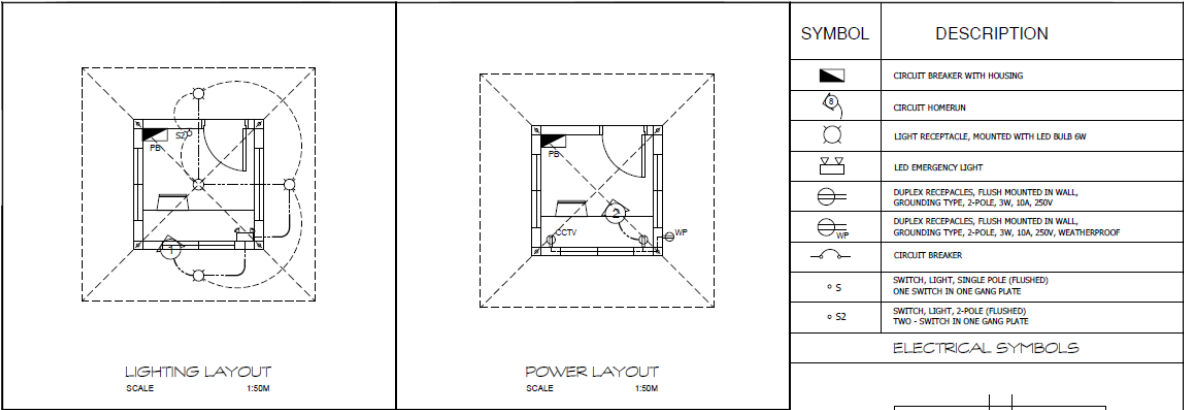
DESIGNED BY
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DRAWN BY
ENGR. FERDINAND L. FIGUERRAS

CHECKED BY
JULY 2018

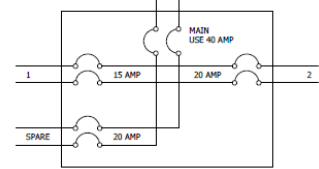
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SYMBOL	DESCRIPTION
	CIRCUIT BREAKER WITH HOUSING
	CIRCUIT HOMERUN
	LIGHT RECEPTACLE, MOUNTED WITH LED BULB 6W
	LED EMERGENCY LIGHT
	DUPLEX RECEPTACLES, FLUSH MOUNTED IN WALL, GROUNDING TYPE, 2-POLE, 3W, 10A, 250V
	DUPLEX RECEPTACLES, FLUSH MOUNTED IN WALL, GROUNDING TYPE, 2-POLE, 3W, 10A, 250V, WEATHERPROOF
	CIRCUIT BREAKER
	SWITCH, LIGHT, SINGLE POLE (FLUSHED) ONE SWITCH IN ONE GANG PLATE
	SWITCH, LIGHT, 2-POLE (FLUSHED) TWO - SWITCH IN ONE GANG PLATE

ELECTRICAL SYMBOLS



PANEL BOARD SCHEDULE

CIRCUIT NO.	LOAD DESCRIPTION	NO. OF OUTLETS	POWER (VA)	VOLTAGE (Volts)	CURRENT (Amperes)	BREAKER RATING	WIRE SIZE (mm ²)	CONDUIT SIZE (mm)
1	LIGHTING LOAD	5	500	230	2.17	15 AMP	2.0	20 mm φ
2	CONVENIENCE OUTLET	3	540	230	2.35	20 AMP	3.5	20 mm φ
SPARE				230		20 AMP		
TOTAL			1 040		4.52			

USE:
 MAIN FEEDER CONDUCTOR 2 - #0 0 mm² THHN Stranded Copper Wire
 GROUNDING CONDUCTOR 1 - #1.5 mm² THHN Stranded Copper Wire
 MAIN DISCONNECT 40 Amperes, 2 pole, 250 Volt Circuit Breaker

TABULATED LOAD SCHEDULE

Republic of the Philippines
Office of the President

JHMC
JOHN HAY MANAGEMENT CORPORATION

REHABILITATION OF GUARD HOUSE
AT AREA 1

CHECKED BY
AR. LUZVIMINGA M. INGOS-PANGANBAN

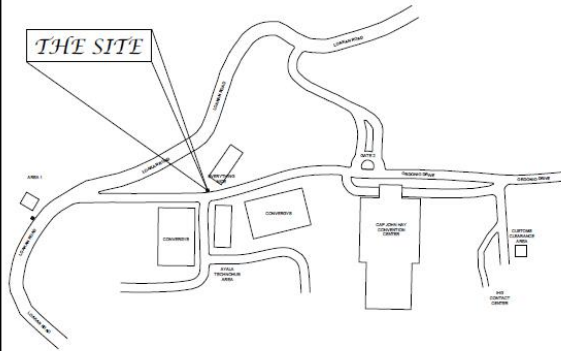
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ENGR. FERDINAND L. FIGUERRES

DATE REVISED
JUNE 20, 2016

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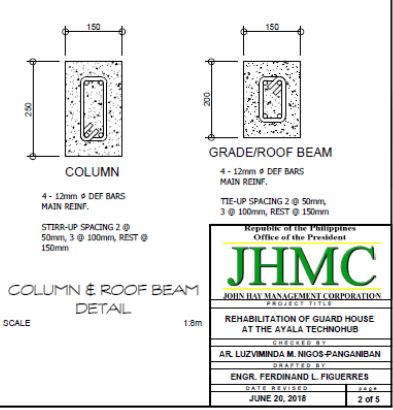
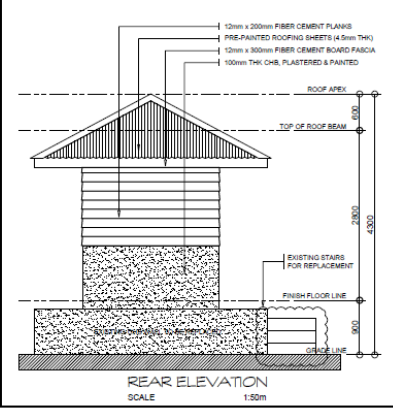
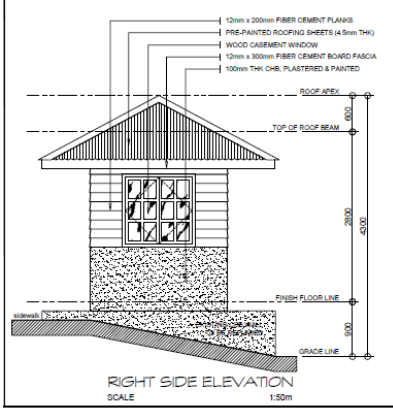
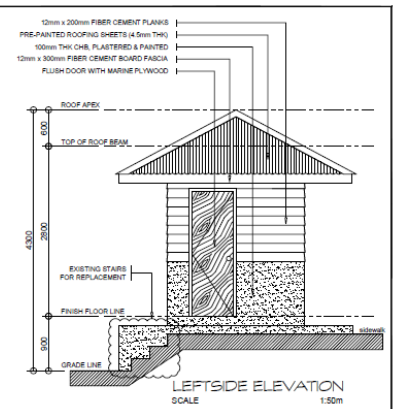
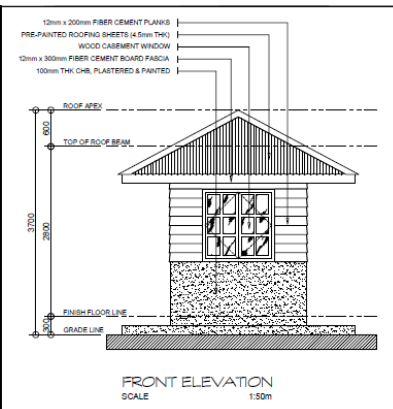
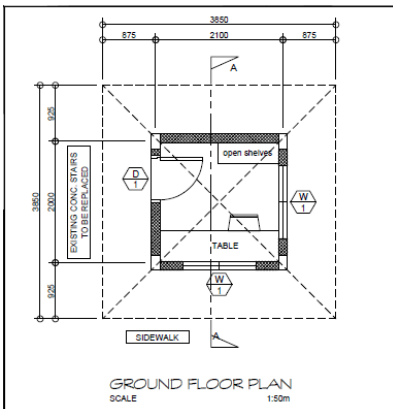


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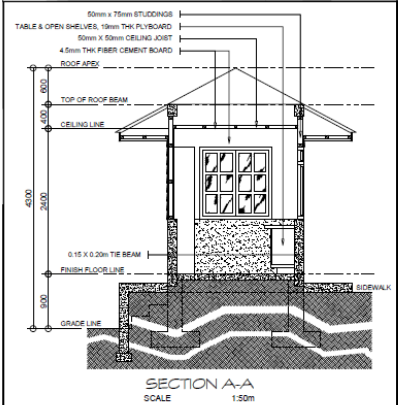


VICINITY MAP

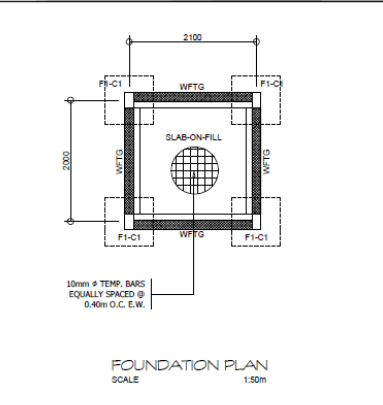
Republic of the Philippines Office of the President JHMC JOHN HAY MANAGEMENT CORPORATION	
REHABILITATION OF GUARD HOUSE AT THE AYALA TECHNHUB	
DESIGNED BY AR. LUZVIMINDA M. NICO-SANGANBAN	
DRAWN BY ENGR. FERDINAND L. FIGUERRES	
DATE REVISED	NO.
JUNE 20, 2018	1 of 5



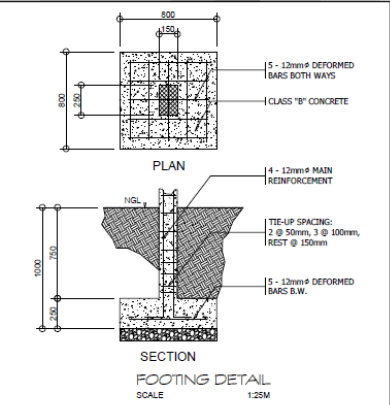
Republic of the Philippines Office of the President JHMC JOHN HAY MANAGEMENT CORPORATION	
REHABILITATION OF GUARD HOUSE AT THE AYALA TECHNHUB	
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DATE REVISED	NO.
JUNE 20, 2018	2 of 5



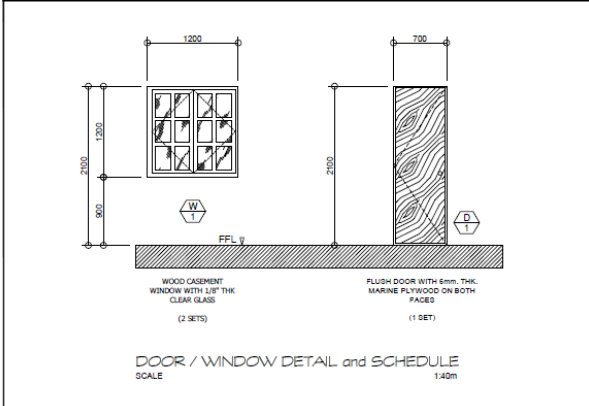
SECTION A-A
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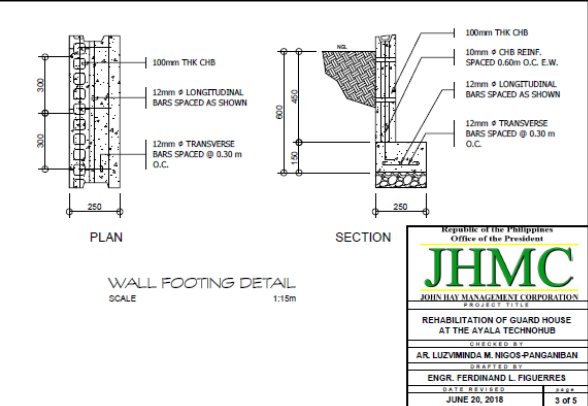
FOUNDATION PLAN
SCALE 1:50m



FOOTING DETAIL
SCALE 1:25M



DOOR / WINDOW DETAIL and SCHEDULE
SCALE 1:40m



WALL FOOTING DETAIL
SCALE 1:15m

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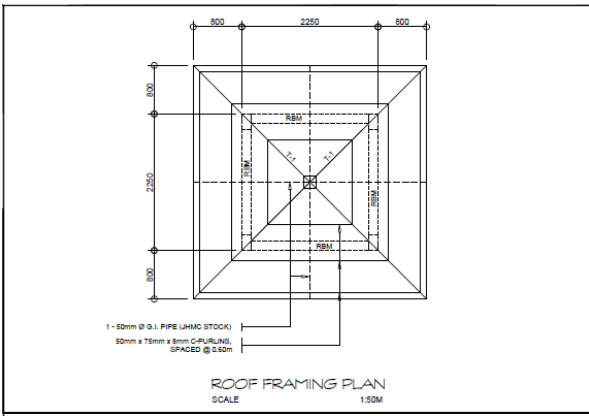
REHABILITATION OF GUARD HOUSE
AT THE AYALA TECHNOHUB

DESIGNED BY
AR. LUZVINDA M. INOS-PANGANBAN

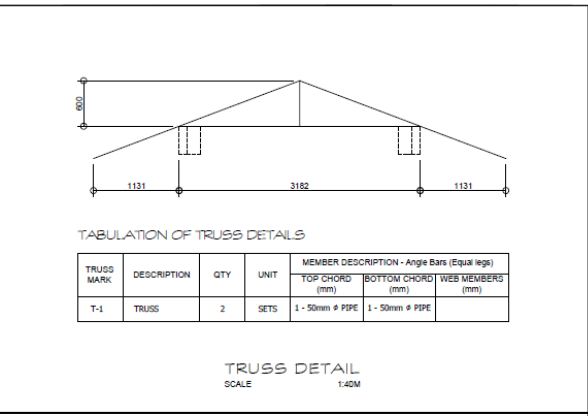
GRATIFIED BY
ENGR. FERDINAND L. FIGUERRAS

DATE REVISED: 0000

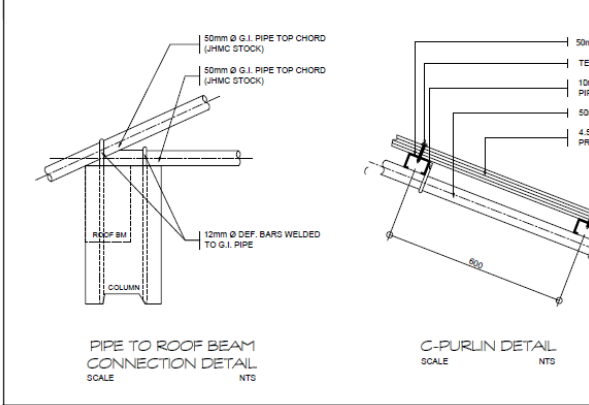
JUNE 20, 2018



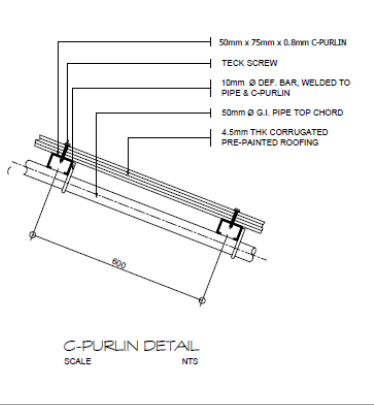
ROOF FRAMING PLAN
SCALE 1:50M



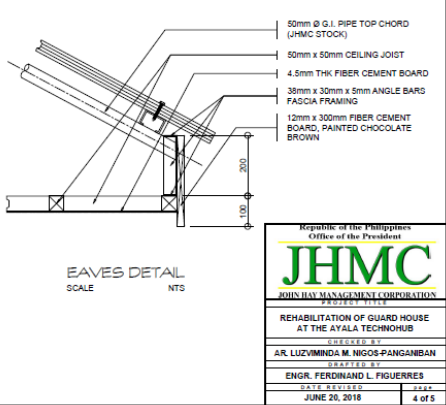
TRUSS DETAIL
SCALE 1:40M



PIPE TO ROOF BEAM CONNECTION DETAIL
SCALE NTS



C-PURLIN DETAIL
SCALE NTS



EAVES DETAIL
SCALE NTS

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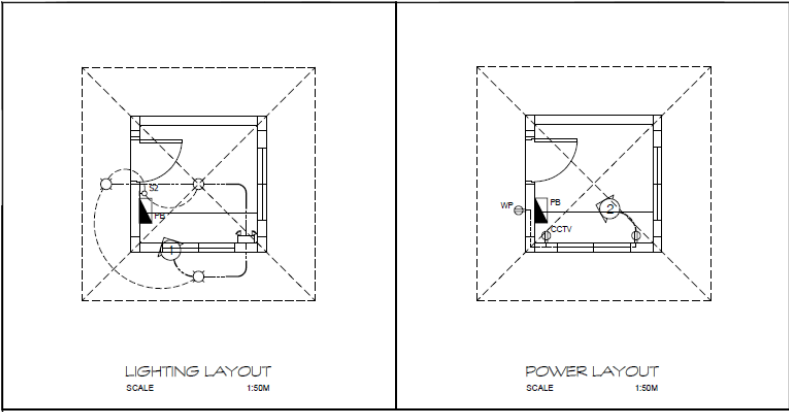
REHABILITATION OF GUARD HOUSE
AT THE AYALA TECHNOHUB

DESIGNED BY
AR. LUZVINDA M. INOS-PANGANBAN

GRATIFIED BY
ENGR. FERDINAND L. FIGUERRAS

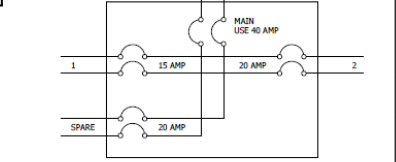
DATE REVISED: 0000

JUNE 20, 2018



SYMBOL	DESCRIPTION
	CIRCUIT BREAKER WITH HOUSING
	CIRCUIT HOMERUN
	LIGHT RECEPTACLE, MOUNTED WITH LED BULB 6W
	LED EMERGENCY LIGHT
	DUPLEX RECEPTACLES, FLUSH MOUNTED IN WALL, GROUNDING TYPE, 2-POLE, 3W, 10A, 250V
	DUPLEX RECEPTACLES, FLUSH MOUNTED IN WALL, GROUNDING TYPE, 2-POLE, 3W, 10A, 250V, WEATHERPROOF
	CIRCUIT BREAKER
	SWITCH, LIGHT, SINGLE POLE (FLUSHED)
◦ S	ONE SWITCH IN ONE GANG PLATE
◦ S2	SWITCH, LIGHT, 2-POLE (FLUSHED) TWO - SWITCH IN ONE GANG PLATE

ELECTRICAL SYMBOLS



PANEL BOARD SCHEDULE

CIRCUIT NO.	LOAD DESCRIPTION	NO. OF OUTLETS	POWER (VA)	VOLTAGE (Volts)	CURRENT (Amperes)	BREAKER RATING	WIRE SIZE (mm ²)	CONDUIT SIZE (mm)
1	LIGHTING LOAD	4	400	230	1.74	15 AMP	2.0	20 mm φ
2	CONVENIENCE OUTLET	3	540	230	2.35	20 AMP	3.5	20 mm φ
	SPARE			230		20 AMP		
TOTAL			940		4.09			

USE:
 MAIN FEEDER CONDUCTOR 2 - #8.0 mm² THHN Stranded Copper Wire
 GROUND CONDUCTOR 1 - #5.5 mm² THHN Stranded Copper Wire
 MAIN DISCONNECT 40 Amperes, 2 pole, 250 Volt Circuit Breaker

TABULATED LOAD SCHEDULE

Republic of the Philippines
 Office of the President

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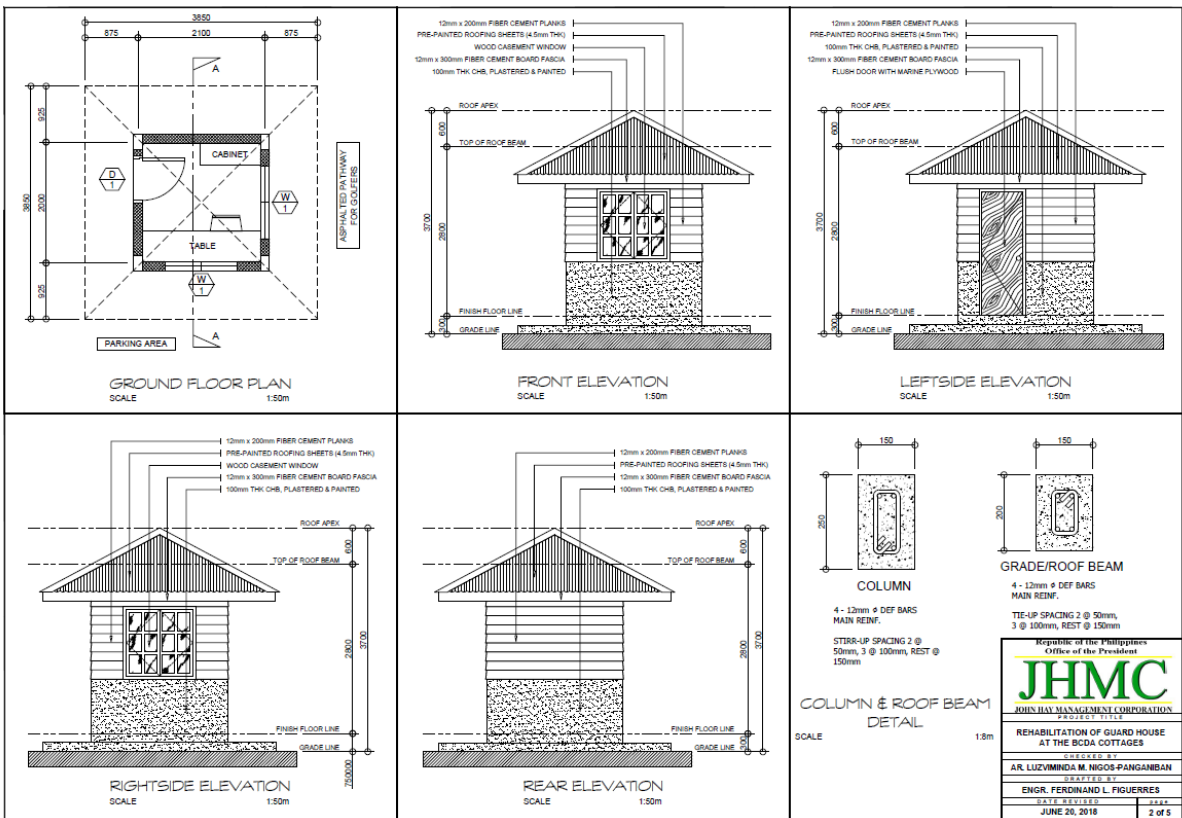
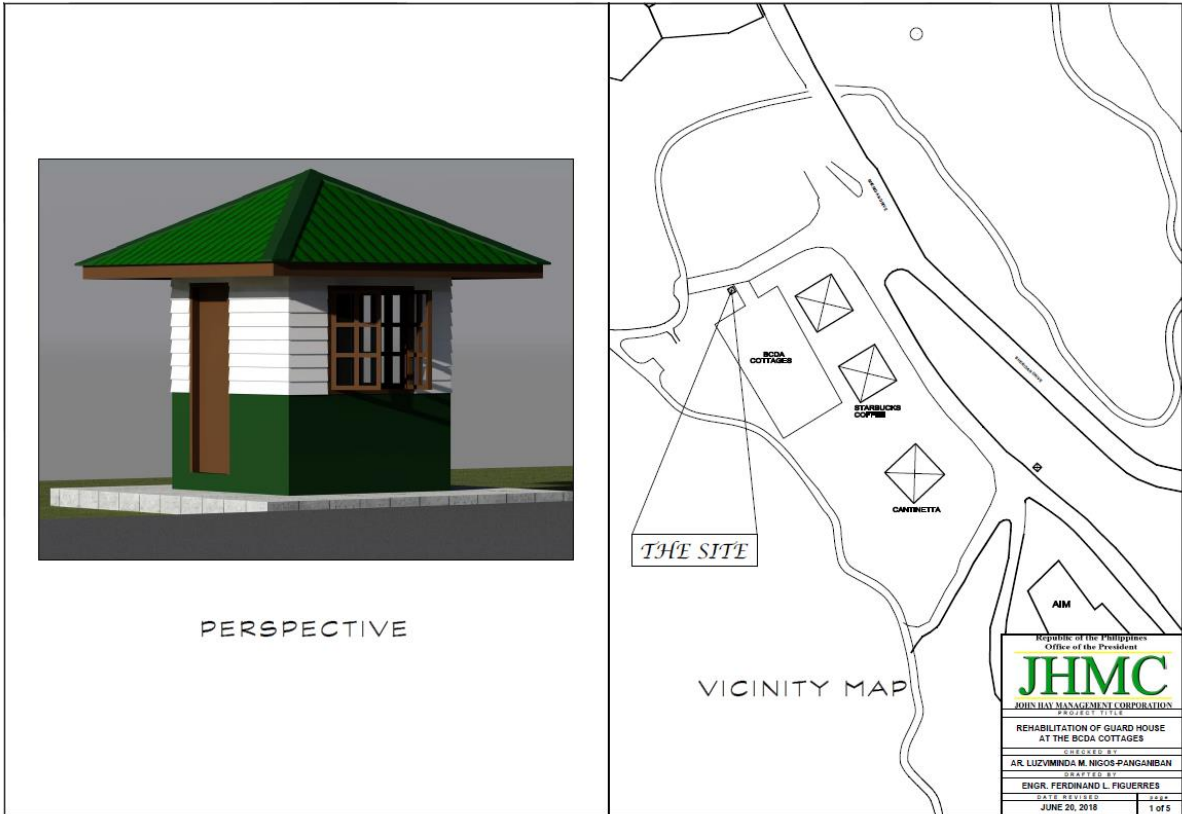
PROJECT
 REHABILITATION OF GUARD HOUSE
 AT THE AYALA TECHNOHUB

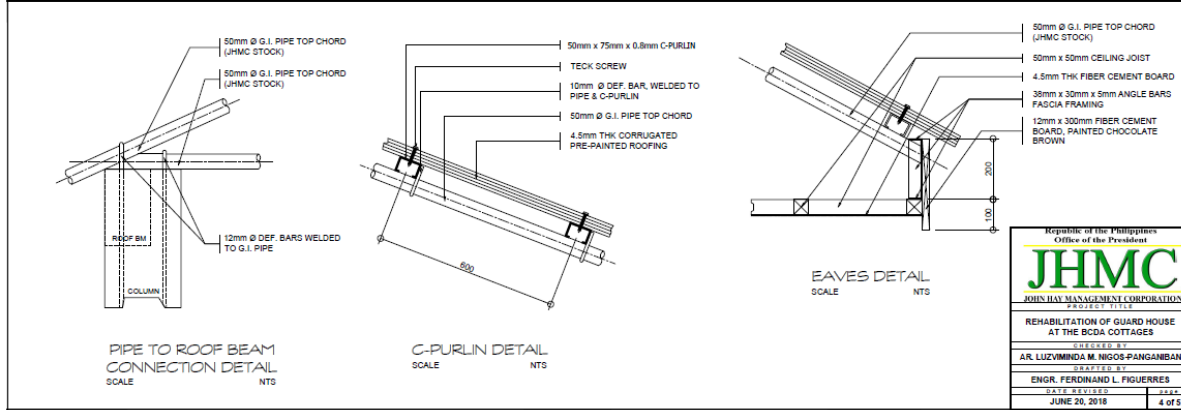
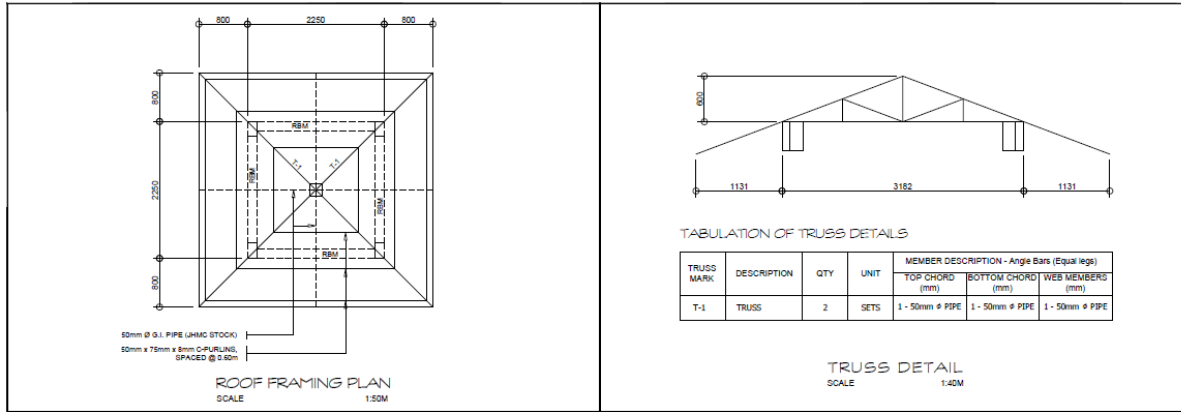
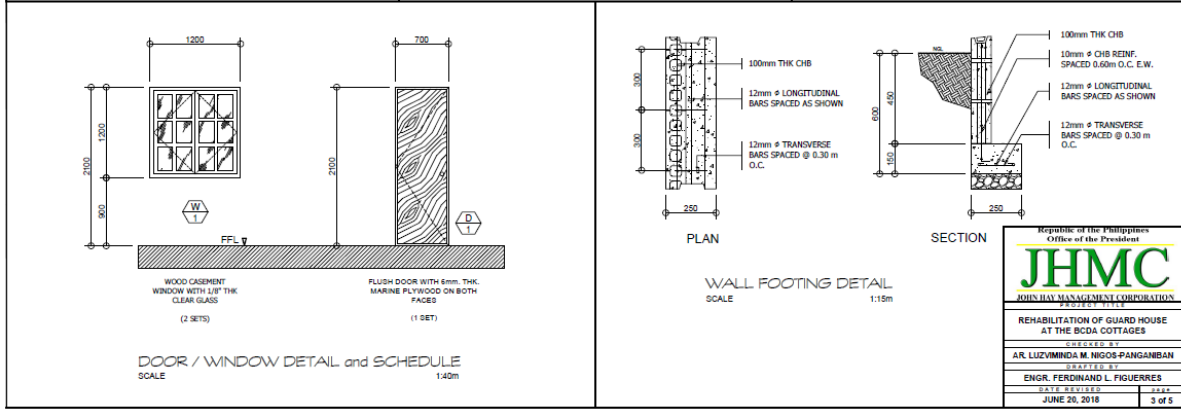
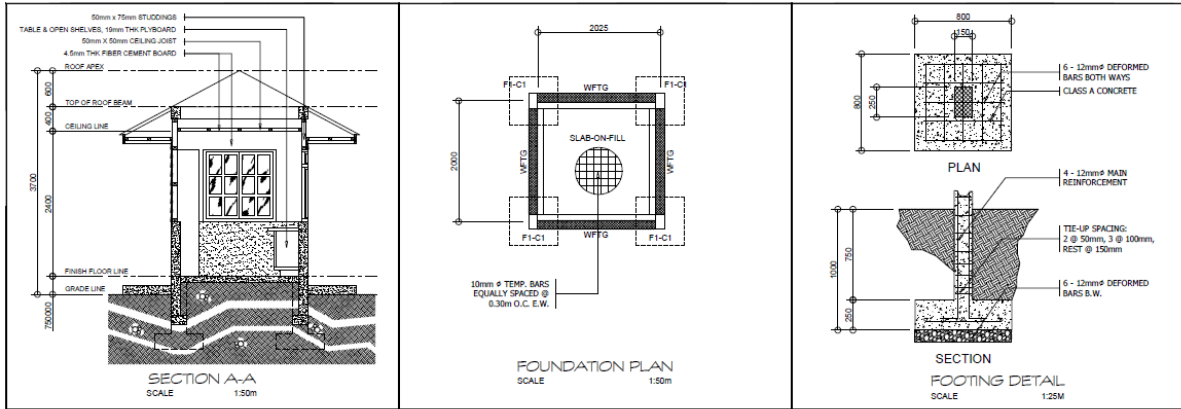
DESIGNED BY
 AR. LUZVIMINDA M. NICOS-PANGAMBAN

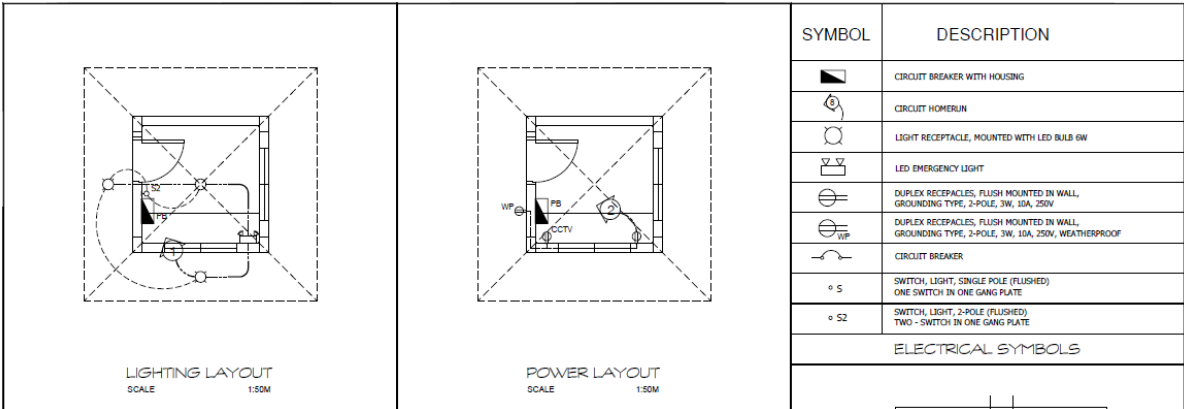
CHECKED BY
 ENGR. FERDINAND L. FIGUERRES

DATE REVISED
 JUNE 20, 2018

5 of 5

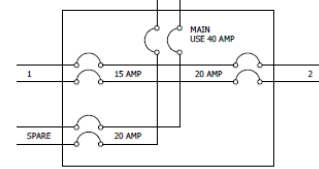






SYMBOL	DESCRIPTION
	CIRCUIT BREAKER WITH HOUSING
	CIRCUIT HOMERUN
	LIGHT RECEPTACLE, MOUNTED WITH LED BULB 6W
	LED EMERGENCY LIGHT
	DUPLEX RECEPTACLES, FLUSH MOUNTED IN WALL, GROUNDING TYPE, 2-POLE, 3W, 10A, 250V
	DUPLEX RECEPTACLES, FLUSH MOUNTED IN WALL, GROUNDING TYPE, 2-POLE, 3W, 10A, 250V, WEATHERPROOF
	CIRCUIT BREAKER
	SWITCH, LIGHT, SINGLE POLE (FLUSHED) ONE SWITCH IN ONE GANG PLATE
	SWITCH, LIGHT, 2-POLE (FLUSHED) TWO - SWITCH IN ONE GANG PLATE

ELECTRICAL SYMBOLS



PANEL BOARD SCHEDULE

CIRCUIT NO.	LOAD DESCRIPTION	NO. OF OUTLETS	POWER (VA)	VOLTAGE (Volts)	CURRENT (Amperes)	BREAKER RATING	WIRE SIZE (mm ²)	CONDUIT SIZE (mm)
1	LIGHTING LOAD	4	400	230	1.74	15 AMP	2.0	20 mm ϕ
2	CONVENIENCE OUTLET	3	540	230	2.35	20 AMP	3.5	20 mm ϕ
	SPARE			230		20 AMP		
TOTAL			940		4.09			

USE:
 MAIN FEEDER CONDUCTOR 2 - #6.0 mm² THHN Stranded Copper Wire
 GROUND CONDUCTOR 1 - #6.0 mm² THHN Stranded Copper Wire
 MAIN DISCONNECT 40 Amperes, 2 pole, 250 Volt Circuit Breaker

TABULATED LOAD SCHEDULE

Republic of the Philippines
 Office of the President

JHMC
 JOHN HAY MANAGEMENT CORPORATION

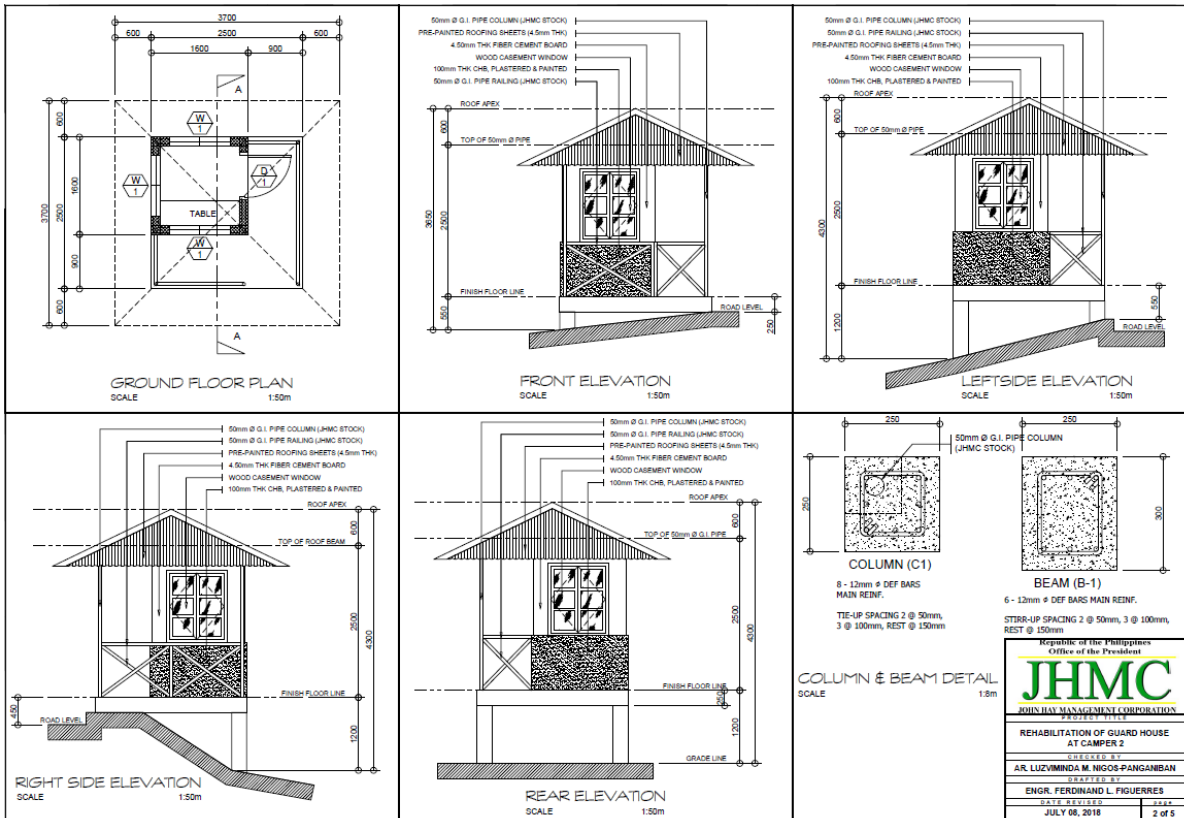
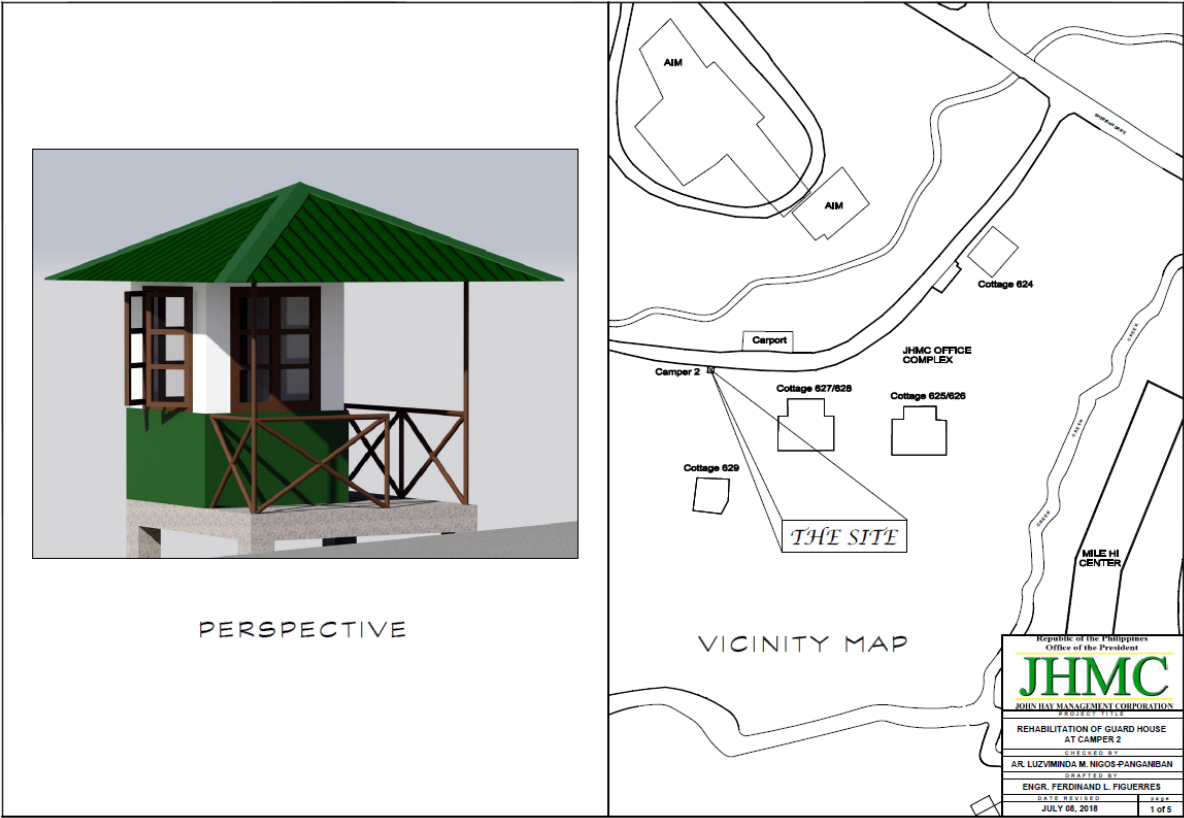
REHABILITATION OF GUARD HOUSE
 AT THE BCDA COTTAGES

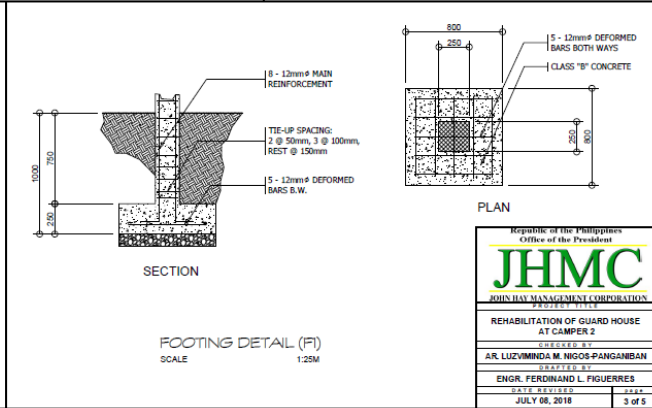
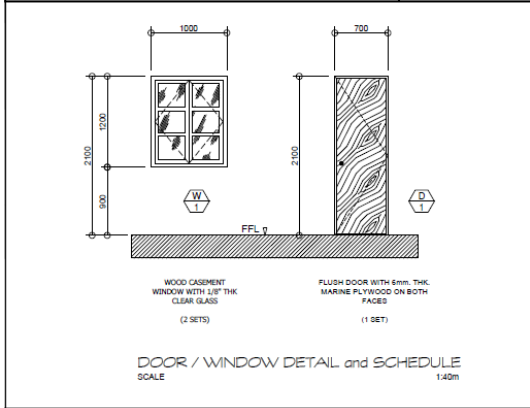
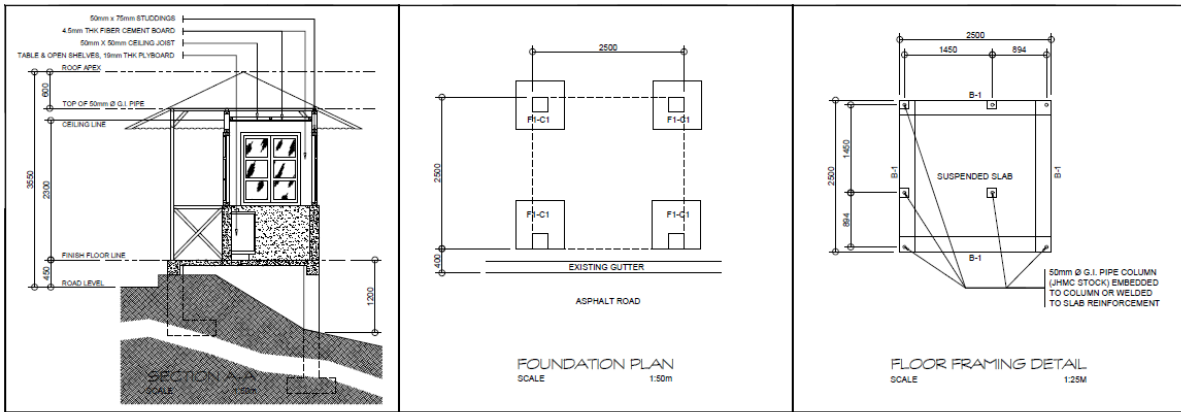
DESIGNED BY
 AR. LUZVIMINDA M. NICOS-PANGAMBAN

CHECKED BY
 ENGR. FERDINAND L. FIGUERRES

DATE REVISED
 JUNE 20, 2018

5 of 5





Republic of the Philippines
Office of the President

JHMC
JOHN HAY MANAGEMENT CORPORATION

REHABILITATION OF GUARD HOUSE AT CAMPER 2

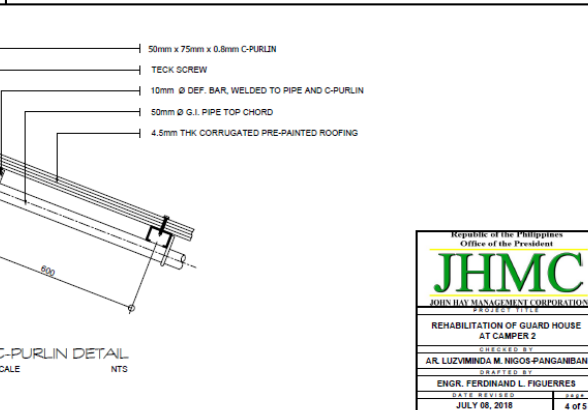
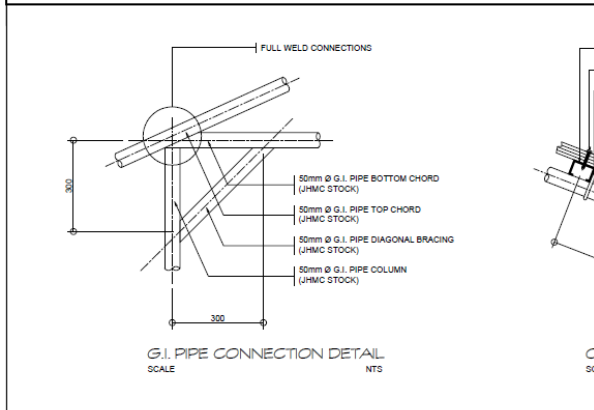
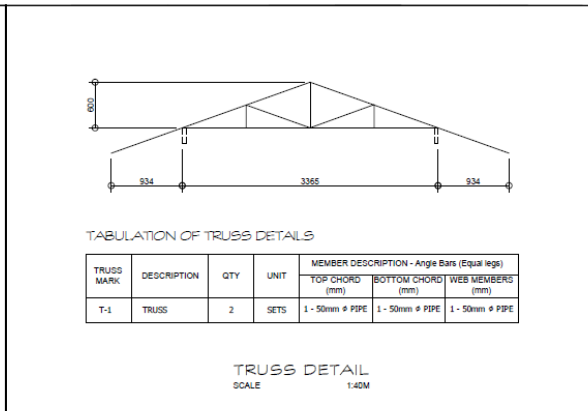
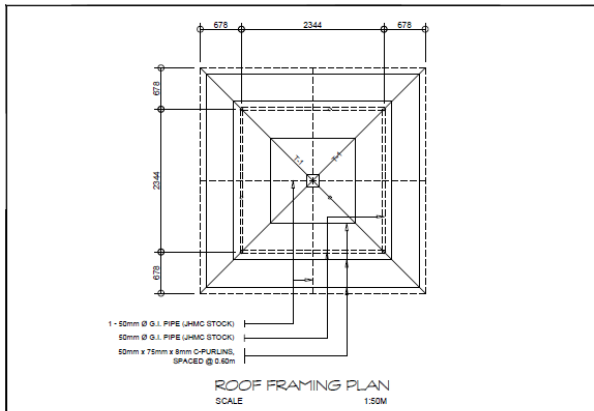
PROJECT NO. JHMC-18-001

DESIGNED BY: AR. LUZVIMINDA M. NIGOS-PANGANIBAN

DRAWN BY: ENGR. FERDINAND L. FIGUERRES

DATE REVISED: JULY 06, 2018

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Republic of the Philippines
Office of the President

JHMC
JOHN HAY MANAGEMENT CORPORATION

REHABILITATION OF GUARD HOUSE AT CAMPER 2

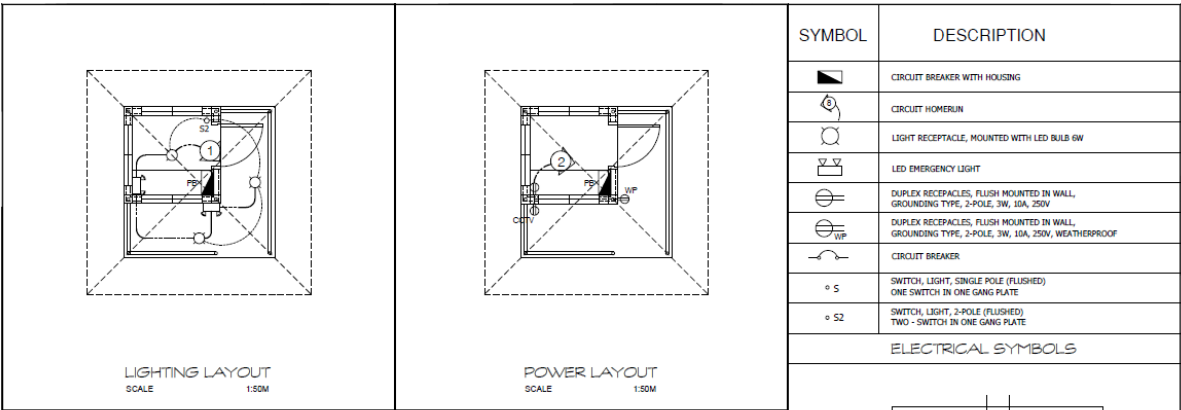
PROJECT NO. JHMC-18-001

DESIGNED BY: AR. LUZVIMINDA M. NIGOS-PANGANIBAN

DRAWN BY: ENGR. FERDINAND L. FIGUERRES

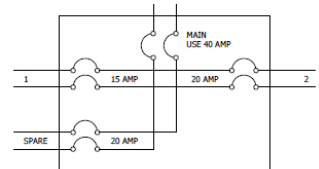
DATE REVISED: JULY 06, 2018

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SYMBOL	DESCRIPTION
	CIRCUIT BREAKER WITH HOUSING
	CIRCUIT HOMERUN
	LIGHT RECEPTACLE, MOUNTED WITH LED BULB 6W
	LED EMERGENCY LIGHT
	DUPLEX RECEPTACLES, FLUSH MOUNTED IN WALL, GROUNDING TYPE, 2-POLE, 3W, 10A, 250V
	DUPLEX RECEPTACLES, FLUSH MOUNTED IN WALL, GROUNDING TYPE, 2-POLE, 3W, 10A, 250V, WEATHERPROOF
	CIRCUIT BREAKER
	SWITCH, LIGHT, SINGLE POLE (FLUSHED)
	SWITCH, LIGHT, 2-POLE (FLUSHED)
	TWO - SWITCH IN ONE GANG PLATE

ELECTRICAL SYMBOLS



PANEL BOARD SCHEDULE

CIRCUIT NO.	LOAD DESCRIPTION	NO. OF OUTLETS	POWER (VA)	VOLTAGE (Volts)	CURRENT (Amperes)	BREAKER RATING	WIRE SIZE (mm ²)	CONDUIT SIZE (mm)
1	LIGHTING LOAD	5	500	230	2.17	15 AMP	2.0	20 mm ø
2	CONVENIENCE OUTLET	3	540	230	2.35	20 AMP	3.5	20 mm ø
SPARE				230		20 AMP		
TOTAL			1 040		4.52			

USE:
 MAIN FEEDER CONDUCTOR 2 - #8.0 mm² THHN Stranded Copper Wire
 GROUND CONDUCTOR 1 - #5.5 mm² THHN Stranded Copper Wire
 MAIN DISCONNECT 40 Amperes, 2 pole, 250 Volt Circuit Breaker

TABULATED LOAD SCHEDULE

Republic of the Philippines
 Office of the President
JHMC
 JOINT MILITARY MANAGEMENT COMBINATION
 REHABILITATION OF GUARD HOUSE
 AT CAMPER 2
 DESIGNED BY
 AR. LUZVIMINDA M. NIGOS-PANGANBAN
 CHECKED BY
 ENGR. FERDINAND L. FIGUERRES
 DATE REVIEWED
 JULY 06, 2018
 5 of 5

Section VIII. Bill of Quantities

Project Title : **REHABILITATION OF GUARD HOUSE AT AREA 1**
 Location : John Hay Special Economic Zone
 Subject : BILL OF QUANTITIES

Item **102** : **Excavation, Backfilling and Disposal** Qty = **6.78** cu m

1. LABOR				
Qty	Description	Rate	No. of Days	Amount
	Foreman	per day	for day =	P -
	Unskilled	per day	for day =	P -
Sub-Total				P -
A. DIRECT COST				P -
B. INDIRECT COST				P -
	OCM	15%	P -	
	Contractor's Profit	10%	P -	
	VAT	5%	P -	
TOTAL ITEM COST				P -
Unit Cost				P -

Item **403** : **Metal Works** Qty = **1.00** lot

1. MATERIALS				
Qty	Unit	Description	Unit Cost	Amount
10	pc	50mm Ø G.I. Pipe (schedule 40)	per pc =	JHMC Stock
6	pc	50mm x 75mm x 1.0mm C-purlins	per pc =	P -
1	pc	Grinding disc 4" Ø	per pc =	P -
5	pc	Hacksaw blade	per pc =	P -
3	kl	Welding rod	per kl =	P -
Sub-Total				P -
2. LABOR				
Qty	Description	Rate	No. of Days	Amount
	Foreman	per day	for day =	P -
	Skilled	per day	for day =	P -
	Unskilled	per day	for day =	P -
Sub-Total				P -
3. EQUIPMENT RENTAL				
Qty	Description	Operated Rate	No. of Days	Amount
	Welding machine	per day	for day =	P -
	Edger	per day	for day =	P -
	Minor Tools (5% of Labor)			P -
Sub-Total				P -
A. DIRECT COST				P -
B. INDIRECT COST				P -
	OCM	15%	P -	
	Contractor's Profit	10%	P -	
	VAT	5%	P -	
TOTAL ITEM COST				P -
Unit Cost				P -

Item **900** : **Reinforced Concrete Works** Qty = **3.62** cu m

1. MATERIALS				
Qty	Unit	Description	Unit Cost	Amount
17	pc	12 mm diam rebars x 6mt	per pc =	P -
12	pc	10 mm diam rebars x 6mt	per pc =	P -
2	kg	G.I. Tie wire, Ga. 16	per kg =	P -
2	pc	1/4" x 4' x 8' ordinary plywood	per pc =	P -
30	bd ft	2" x 2" rough lumber	per bd ft =	P -

95	bd ft	2" x 3" rough lumber		per	bd ft	=	P	-
5	kl	Assorted nails		per	kl	=	P	-
25	bg	Portland cement		per	bg	=	P	-
1.75	cu m	River Sand		per	cu m	=	P	-
3.25	cu m	Gravel		per	cu m	=	P	-
Sub-Total								P -
2. LABOR								
<i>Qty</i>	<i>Description</i>		<i>Rate</i>	<i>No. of Days</i>		<i>Amount</i>		
	Foreman		per day	for	day =	P	-	
	Skilled		per day	for	day =	P	-	
	Unskilled		per day	for	day =	P	-	
Sub-Total								P -
A. DIRECT COST								P -
B. INDIRECT COST								P -
OCM				15%	P	-		
Contractor's Profit				10%	P	-		
VAT				5%	P	-		
TOTAL ITEM COST								P -
Unit Cost								P -

Item **901** : **Masonry Works**

Qty = **25.37** sq m

1. MATERIALS								
<i>Qty</i>	<i>Unit</i>	<i>Description</i>		<i>Unit Cost</i>			<i>Amount</i>	
18	pc	10 mm diam rebars x 6mt		per	pc	=	P	-
0.75	kg	G.I. Tie wire, Ga. 16		per	kg	=	P	-
28	bg	Portland cement		per	bg	=	P	-
3	cu m	River Sand		per	cu m	=	P	-
320	pc	4" CHB		per	pc	=	P	-
Sub-Total								P -
2. LABOR								
<i>Qty</i>	<i>Description</i>		<i>Rate</i>	<i>No. of Days</i>		<i>Amount</i>		
	Foreman		per day	for	day =	P	-	
	Skilled		per day	for	day =	P	-	
	Unskilled		per day	for	day =	P	-	
Sub-Total								P -
A. DIRECT COST								P -
B. INDIRECT COST								P -
OCM				15%	P	-		
Contractor's Profit				10%	P	-		
VAT				5%	P	-		
TOTAL ITEM COST								P -
Unit Cost								P -

Item **1003** : **Carpentry Works**

Qty = **1.00** lot

1. MATERIALS								
<i>Qty</i>	<i>Unit</i>	<i>Description</i>		<i>Unit Cost</i>			<i>Amount</i>	
19	bd ft	2 x 2 ceiling joist		per	bd ft	=	P	-
95	bd ft	2" x 3", rough lumber, studdings		per	bd ft	=	P	-
5	pc	4.5mm thk fibercement board		per	pc	=	P	-
2	pc	19mm thk plyboard		per	pc	=	P	-
3	set	W-1, 1.20 x 1.20m Wood Casement		per	set	=	P	-
1	set	D-1, 0.70 x 2.10m Flush door with door jamb		per	set	=	P	-
1	lot	Assorted hardwares (door knob & hinges)		per	lot	=	P	-
1	lot	Assorted nails		per	lot	=	P	-
Sub-Total								P -
2. LABOR								
<i>Qty</i>	<i>Description</i>		<i>Rate</i>	<i>No. of Days</i>		<i>Amount</i>		
	Foreman		per day	for	day =	P	-	
	Skilled		per day	for	day =	P	-	
	Unskilled		per day	for	day =	P	-	
Sub-Total								P -
A. DIRECT COST								P -

B. INDIRECT COST				P	-
OCM	15%	P	-		
Contractor's Profit	10%	P	-		
VAT	5%	P	-		
TOTAL ITEM COST				P	-
Unit Cost				P	-

Item **1014** : **Prepainted Metal Roofing Sheets** Qty:= **1.00** lot

1. MATERIALS					
Qty	Unit	Description	Unit Cost		Amount
30	1 m	4.0 mm THK Corrugated Pre-painted roofing	per	1 m =	P -
5	pc	Ridge Roll	per	pc =	P -
1	pc	Cutting disc, 4"	per	pc =	P -
120	pc	Tek screw	per	pc =	P -
Sub-Total					P -
2. LABOR					
Qty	Description	Rate	No. of Days		Amount
	Foreman	per day	for	day =	P -
	Skilled	per day	for	day =	P -
	Laborer	per day	for	day =	P -
Sub-Total					P -
3. EQUIPMENT RENTAL					
Qty	Description	Operated Rate	No. of Days		Amount
	Power drill	per day	for	day =	P -
	Edger	per day	for	day =	P -
	Minor Tools (10% of Labor)				P -
Sub-Total					P -
A. DIRECT COST					P -
B. INDIRECT COST					P -
OCM	15%	P	-		
Contractor's Profit	10%	P	-		
VAT	5%	P	-		
TOTAL ITEM COST				P	-
Unit Cost				P	-

Item **1032** : **Painting Works** Qty = **45.60** sq m

1. MATERIALS					
Qty	Unit	Description	Unit Cost		Amount
2	gal	Paint, flat latex paint	per	gal =	P -
2	gal	Paint, semi-gloss, baguio green	per	gal =	P -
2	gal	Paint, semi-gloss, white	per	gal =	P -
1	gal	Paint, flat wall enamel	per	gal =	P -
2	gal	Paint, QDE, brown	per	gal =	P -
1	gal	Red oxide primer	per	gal =	P -
2	gal	Plexi Bond	per	gal =	P -
1	gal	Thinner, Paint	per	gal =	P -
1	gal	Thinner, Lacquer	per	gal =	P -
1	set	Roller Handle, 7" w/ pan	per	set =	P -
1	pc	Brush, Paint 4"	per	pc =	P -
2	pc	Brush, Paint 2"	per	pc =	P -
1	gal	Easytite with hardener	per	gal =	P -
1	lot	Assorted sandpaper	per	lot =	P -
1	kg	Stupa rug	per	kg =	P -
Sub-Total					P -
2. LABOR					
Qty	Description	Rate	No. of Days		Amount
	Foreman	per day	for	day =	P -
	Skilled	per day	for	day =	P -
	Unskilled	per day	for	day =	P -
Sub-Total					P -
A. DIRECT COST					P -
B. INDIRECT COST					P -

OCM	15%	P	-	
Contractor's Profit	10%	P	-	
VAT	5%	P	-	
TOTAL ITEM COST		P		-
Unit Cost		P		-

Item **1101** : **Electrical Works**

Qty = **1.00** lot

1. MATERIALS					
Qty	Unit	Description	Unit Cost		Amount
1	pc	Service Entrance Cap, 1/2" diameter	per pc	=	P -
10	pc	Locknut and Bushing, 1/2" diameter	per pc	=	P -
3	pc	PVC Electrical conduit 1/2" diameter	per pc	=	P -
4	pc	LED bulb, 9w	per pc	=	P -
4	pc	Receptacle outlet	per pc	=	P -
3	pc	Convenience outlet, 2 gang with plate	per pc	=	P -
1	set	Weather Proof Convenience Outlet, 2 Gang	per set	=	P -
1	set	Emergency light, LED Type	per set	=	P -
8	mt	#2.0 mm2 THHN stranded copper wire	per mt	=	P -
15	mt	#3.5 mm2 THHN stranded copper wire	per mt	=	P -
30	mt	#8.0 mm2 THHN stranded copper wire	per mt	=	P -
1	set	Two-gang switch with plate	per set	=	P -
5	pc	Utility box	per pc	=	P -
4	pc	Junction box	per pc	=	P -
1	can	Solvent cement	per can	=	P -
1	roll	Electrical tape, plastic	per roll	=	P -
1	pc	Breaker housing, 4 holes	per pc	=	P -
1	pc	Circuit breaker, 40 amps, bolt-on, 230V	per pc	=	P -
2	pc	Circuit breaker, 15 amps, bolt-on, 230V	per pc	=	P -
Sub-Total					P -
2. LABOR					
Qty	Description	Rate	No. of Days		Amount
	Foreman	per day	for	day =	P -
	Skilled	per day	for	day =	P -
	Unskilled	per day	for	day =	P -
Sub-Total					P -
A. DIRECT COST					P -
B. INDIRECT COST					P -
OCM					15% P -
Contractor's Profit					10% P -
VAT					5% P -
TOTAL ITEM COST					P -
Unit Cost					P -

Item **SPL-1** : **Construction Safety & Health**

Qty = **1.00** l.s.

1. MATERIALS					
Qty	Unit	Description	Unit Cost		Amount
	md	Safety Shoes	per md	=	P -
	md	Safety Harness	per md	=	P -
	md	Safety Helmet	per md	=	P -
	md	Safety Gloves	per md	=	P -
Sub - Total					P -
2. LABOR					
Qty	Description	Rate	No. of Days		Amount
	Part Time Safety Practitioner	per day	for	days =	P -
	First Aider	per day	for	days =	P -
Sub - Total					P -
A. DIRECT COST					P -
B. INDIRECT COST					P -
OCM					0% P -
Contractor's Profit					10% P -
VAT					5% P -
TOTAL ITEM COST					P -

<i>Unit Cost</i>	<i>P</i>	-
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Item **SPL-2** : **Demolition**

Qty = 1.00 lot

1. LABOR				
<i>Qty</i>	<i>Description</i>	<i>Rate</i>	<i>No. of Days</i>	<i>Amount</i>
	Foreman	per day	for day =	P -
	Unskilled	per day	for day =	P -
<i>Sub-Total</i>				P -
A. DIRECT COST				P -
B. INDIRECT COST				P -
	OCM	0%	P -	
	Contractor's Profit	10%	P -	
	VAT	5%	P -	
TOTAL ITEM COST				P -
<i>Unit Cost</i>				<i>P -</i>

GRAND TOTAL	PHP	-
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Project Title : **REHABILITATION OF GUARD HOUSE AT THE AYALA TECHNOHUB**
 Location : John Hay Special Economic Zone
 Subject : **BILL OF QUANTITIES**

Item **102** : **Excavation, Backfilling and Disposal** Qty = **6.78** cu m

1. LABOR				
Qty	Description	Rate	No. of Days	Amount
	Foreman	per day	for day =	P -
	Unskilled	per day	for day =	P -
<i>Sub-Total</i>				P -
A. DIRECT COST				P -
B. INDIRECT COST				P -
		OCM	15% P -	
		Contractor's Profit	10% P -	
		VAT	5% P -	
TOTAL ITEM COST				P -
Unit Cost				P -

Item **403** : **Metal Works** Qty = **1.00** lot

1. MATERIALS				
Qty	Unit	Description	Unit Cost	Amount
5	pc	50mm Ø G.I. Pipe (schedule 40)	per pc =	JHMC Stock
6	pc	50mm x 75mm x 1.0mm C-purlins	per pc =	P -
8	pc	38 x 38 x 6mm, Angle bar	per pc =	P -
1	pc	Grinding disc 4" Ø	per pc =	P -
5	pc	Hacksaw blade	per pc =	P -
5	cls	Welding rod	per cls =	P -
<i>Sub-Total</i>				P -
2. LABOR				
Qty	Description	Rate	No. of Days	Amount
	Foreman	per day	for day =	P -
	Skilled	per day	for day =	P -
	Unskilled	per day	for day =	P -
<i>Sub-Total</i>				P -
3. EQUIPMENT RENTAL				
Qty	Description	Operated Rate	No. of Days	Amount
	Welding machine	per day	for day =	P -
	Edger	per day	for day =	P -
	Minor Tools (5% of Labor)			P -
<i>Sub-Total</i>				P -
A. DIRECT COST				P -
B. INDIRECT COST				P -
		OCM	15% P -	
		Contractor's Profit	10% P -	
		VAT	5% P -	
TOTAL ITEM COST				P -
Unit Cost				P -

Item **900** : **Reinforced Concrete Works** Qty = **3.48** cu m

1. MATERIALS				
Qty	Unit	Description	Unit Cost	Amount
53	pcs	12 mm diam rebars x 6mt	per pcs =	P -
69	pcs	10 mm diam rebars x 6mt	per pcs =	P -
12	kgs	G.I. Tie wire, Ga. 16	per kgs =	P -
7	pcs	1/4" x 4' x 8' ordinary plywood	per pcs =	P -

240	bd ft	2" x 2" rough lumber		per	bd ft	=	P	-
270	bd ft	2" x 3" rough lumber		per	bd ft	=	P	-
8	kl	Assorted nails		per	kl	=	P	-
35	bgs	Portland cement		per	bgs	=	P	-
2	cu m	River Sand		per	cu m	=	P	-
4	cu m	Gravel		per	cu m	=	P	-
<i>Sub-Total</i>							P	-
2. LABOR								
<i>Qty</i>	<i>Description</i>		<i>Rate</i>	<i>No. of Days</i>		<i>Amount</i>		
	Foreman		per day	for	day	=	P	-
	Skilled		per day	for	day	=	P	-
	Unskilled		per day	for	day	=	P	-
<i>Sub-Total</i>							P	-
A. DIRECT COST							P	-
B. INDIRECT COST							P	-
OCM				15%	P	-		
Contractor's Profit				10%	P	-		
VAT				5%	P	-		
TOTAL ITEM COST							P	-
Unit Cost							P	-

Item 901 : Masonry Works

Qty = **7.20** sq m

1. MATERIALS								
<i>Qty</i>	<i>Unit</i>	<i>Description</i>		<i>Unit Cost</i>		<i>Amount</i>		
16	pcs	10 mm diam rebars x 6mt		per	pcs	=	P	-
0.75	kg	G.I. Tie wire, Ga. 16		per	kg	=	P	-
20	bgs	Portland cement		per	bgs	=	P	-
2.5	cu m	River Sand		per	cu m	=	P	-
280	pcs	4" CHB		per	pcs	=	P	-
<i>Sub-Total</i>							P	-
2. LABOR								
<i>Qty</i>	<i>Description</i>		<i>Rate</i>	<i>No. of Days</i>		<i>Amount</i>		
	Foreman		per day	for	day	=	P	-
	Skilled		per day	for	day	=	P	-
	Unskilled		per day	for	day	=	P	-
<i>Sub-Total</i>							P	-
A. DIRECT COST							P	-
B. INDIRECT COST							P	-
OCM				15%	P	-		
Contractor's Profit				10%	P	-		
VAT				5%	P	-		
TOTAL ITEM COST							P	-
Unit Cost							P	-

Item 1003 : Carpentry Works

Qty = **39.22** sq m

1. MATERIALS								
<i>Qty</i>	<i>Unit</i>	<i>Description</i>		<i>Unit Cost</i>		<i>Amount</i>		
75	bd ft	2 x 2 ceiling joist		per	bd ft	=	P	-
95	bd ft	2" x 3", rough lumber, studdings		per	bd ft	=	P	-
9	pc	4.5mm thk fibercement board		per	pc	=	P	-
20	pc	12mm x 200mm fiber cement planks		per	pc	=	P	-
7	pc	12mm x 300mm fiber cement fascia		per	pc	=	P	-
4	pc	19mm thk plyboard		per	pc	=	P	-
2	set	W-1, 1.20 x 1.20m Wood Casement		per	set	=	P	-
1	set	D-1, 0.70 x 2.10m Flush door with door jamb		per	set	=	P	-
1	lot	Assorted hardwares (catches, pullers, etc.)		per	lot	=	P	-
1	lot	Assorted nails		per	lot	=	P	-
<i>Sub-Total</i>							P	-
2. LABOR								
<i>Qty</i>	<i>Description</i>		<i>Rate</i>	<i>No. of Days</i>		<i>Amount</i>		
	Foreman		per day	for	day	=	P	-
	Skilled		per day	for	day	=	P	-

Unskilled		per day	for	day =	P	-
<i>Sub-Total</i>					P	-
A. DIRECT COST					P	-
B. INDIRECT COST					P	-
OCM		15%	P	-		
Contractor's Profit		10%	P	-		
VAT		5%	P	-		
TOTAL ITEM COST					P	-
Unit Cost					P	-

Item **1014** : **Prepainted Metal Roofing Sheets** Qty = **1.00** lot

1. MATERIALS						
Qty	Unit	Description	Unit Cost		Amount	
30	1 m	4.5 mm THK Corrugated Pre-painted roofing	per	1 m =	P	-
5	pcs	Ridge Roll	per	pcs =	P	-
1	pcs	Cutting disc, 4"	per	pcs =	P	-
150	pcs	Tek screw	per	pcs =	P	-
<i>Sub-Total</i>					P	-
2. LABOR						
Qty	Description	Rate	No. of Days		Amount	
	Foreman	per day	for	day =	P	-
	Skilled	per day	for	day =	P	-
	Unskilled	per day	for	day =	P	-
<i>Sub-Total</i>					P	-
3. EQUIPMENT RENTAL						
Qty	Description	Operated Rate	No. of Days		Amount	
	Power drill	per day	for	day =	P	-
	Edger	per day	for	day =	P	-
	Minor Tools (10% of Labor)				P	-
<i>Sub-Total</i>					P	-
A. DIRECT COST					P	-
B. INDIRECT COST					P	-
OCM		15%	P	-		
Contractor's Profit		10%	P	-		
VAT		5%	P	-		
TOTAL ITEM COST					P	-
Unit Cost					P	-

Item **1032** : **Painting Works** Qty = **45.60** sq m

1. MATERIALS						
Qty	Unit	Description	Unit Cost		Amount	
2	gal	Paint, flat latex paint	per	gal =	P	-
2	gal	Paint, semi-gloss, bagueo green	per	gal =	P	-
2	gal	Paint, semi-gloss, white	per	gal =	P	-
1	gal	Paint, flat wall enamel	per	gal =	P	-
2	gal	Paint, QDE, brown	per	gal =	P	-
1	gal	Red oxide primer	per	gal =	P	-
2	gal	Plexi Bond	per	gal =	P	-
1	gal	Thinner, Paint	per	gal =	P	-
1	gal	Thinner, Lacquer	per	gal =	P	-
1	set	Roller Handle, 7" w/ pan	per	set =	P	-
1	pc	Brush, Paint 4"	per	pc =	P	-
2	pc	Brush, Paint 2"	per	pc =	P	-
1	gal	Easytite with hardener	per	gal =	P	-
1	lot	Assorted sandpaper	per	lot =	P	-
1	kg	Stupa rug	per	kg =	P	-
<i>Sub-Total</i>					P	-
2. LABOR						
Qty	Description	Rate	No. of Days		Amount	
	Foreman	per day	for	day =	P	-
	Skilled	per day	for	day =	P	-
	Unskilled	per day	for	day =	P	-

				<i>Sub-Total</i>	P	-
				A. DIRECT COST	P	-
				B. INDIRECT COST	P	-
				OCM	15%	P -
				Contractor's Profit	10%	P -
				VAT	5%	P -
				TOTAL ITEM COST	P	-
				Unit Cost	P	-

Item 1101 : Electrical Works

Qty = **1.00** lot

1. MATERIALS					
Qty	Unit	Description	Unit Cost		Amount
1	pc	Service Entrance Cap, 1/2" diameter	per pc	=	P -
10	pc	Locknut and Bushing, 1/2" diameter	per pc	=	P -
5	pcs	PVC Electrical conduit 1/2" diameter	per pcs	=	P -
3	pcs	LED bulb, 9w	per pcs	=	P -
3	pcs	Receptacle outlet	per pcs	=	P -
3	set	Convenience outlet, 2 gang with plate	per set	=	P -
1	set	Weather Proof Convenience Outlet, 2 Gang	per set	=	P -
1	set	Emergency light, LED Type	per set	=	P -
8	mt	#2.0 mm2 THHN stranded copper wire	per mt	=	P -
15	mt	#3.5 mm2 THHN stranded copper wire	per mt	=	P -
30	mt	#8.0 mm2 THHN stranded copper wire	per mt	=	P -
1	set	Two-gang switch with plate	per set	=	P -
5	pcs	Utility box	per pcs	=	P -
3	pcs	Junction box	per pcs	=	P -
1	ca	Solvent cement	per ca	=	P -
1	roll	Electrical tape, plastic	per roll	=	P -
1	pc	Breaker housing, 4 holes	per pc	=	P -
1	pc	Circuit breaker, 40 amps, bolt-on, 230V	per pc	=	P -
2	pc	Circuit breaker, 15 amps, bolt-on, 230V	per pc	=	P -
				<i>Sub-Total</i>	P -
2. LABOR					
Qty	Description	Rate	No. of Days		Amount
	Foreman	per day	for	day =	P -
	Skilled	per day	for	day =	P -
	Unskilled	per day	for	day =	P -
				<i>Sub-Total</i>	P -
				A. DIRECT COST	P -
				B. INDIRECT COST	P -
				OCM	15% P -
				Contractor's Profit	10% P -
				VAT	5% P -
				TOTAL ITEM COST	P -
				Unit Cost	P -

Item SPL-1 : Construction Safety & Health

Qty = **1.00** l.s.

1. MATERIALS					
Qty	Unit	Description	Unit Cost		Amount
	md	Safety Shoes	per md	=	P -
	md	Safety Harness	per md	=	P -
	md	Safety Helmet	per md	=	P -
	md	Safety Gloves	per md	=	P -
				<i>Sub - Total</i>	P -
2. LABOR					
Qty	Description	Rate	No. of Days		Amount
	Part Time Safety Practitioner	per day	for	days =	P -
	First Aider	per day	for	days =	P -
				<i>Sub - Total</i>	P -
				A. DIRECT COST	P -
				B. INDIRECT COST	P -
				OCM	0% P -

Contractor's Profit	10%	P	-	
VAT	5%	P	-	
TOTAL ITEM COST				P -
Unit Cost				P -

Item **SPL-2 : Demolition**

Qty = **1.00 lot**

1. LABOR				
<i>Qty</i>	<i>Description</i>	<i>Rate</i>	<i>No. of Days</i>	<i>Amount</i>
	Foreman	per day	for day =	P -
	Unskilled	per day	for day =	P -
<i>Sub-Total</i>				P -
A. DIRECT COST				P -
B. INDIRECT COST				P -
	OCM	0%	P -	
	Contractor's Profit	10%	P -	
	VAT	5%	P -	
TOTAL ITEM COST				P -
Unit Cost				P -

GRAND TOTAL	PHP	-
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Project Title : **REHABILITATION OF GUARD HOUSE AT THE BCDA COTTAGES**
 Location : John Hay Special Economic Zone
 Subject : **BILL OF QUANTITIES**

Item **102** : **Excavation, Backfilling and Disposal** Qty = **4.40** cu m

1. LABOR				
Qty	Description	Rate	No. of Days	Amount
	Foreman	per day	for day =	P -
	Unskilled	per day	for day =	P -
Sub-Total				P -
A. DIRECT COST				P -
B. INDIRECT COST				P -
		OCM	15% P -	
		Contractor's Profit	10% P -	
		VAT	5% P -	
TOTAL ITEM COST				P -
Unit Cost				P -

Item **403** : **Metal Works** Qty = **1.00** lot

1. MATERIALS				
Qty	Unit	Description	Unit Cost	Amount
5	pc	50mm Ø G.I. Pipe (schedule 40)	per pc =	JHMC Stock
6	pc	50mm x 75mm x 1.0mm C-purlins	per pc =	P -
8	pc	38 x 38 x 6mm, Angle bar	per pc =	P -
1	pc	Grinding disc 4" Ø	per pc =	P -
5	pc	Hacksaw blade	per pc =	P -
5	kl	Welding rod	per kl =	P -
Sub-Total				P -
2. LABOR				
Qty	Description	Rate	No. of Days	Amount
	Foreman	per day	for day =	P -
	Skilled	per day	for day =	P -
	Unskilled	per day	for day =	P -
Sub-Total				P -
3. EQUIPMENT RENTAL				
Qty	Description	Operated Rate	No. of Days	Amount
	Welding machine	per day	for day =	P -
	Edger	per day	for day =	P -
	Minor Tools (5% of Labor)			P -
Sub-Total				P -
A. DIRECT COST				P -
B. INDIRECT COST				P -
		OCM	15% P -	
		Contractor's Profit	10% P -	
		VAT	5% P -	
TOTAL ITEM COST				P -
Unit Cost				P -

Item **900** : **Reinforced Concrete Works** Qty = **3.82** cu m

1. MATERIALS				
Qty	Unit	Description	Unit Cost	Amount
44	pcs	12 mm diam rebars x 6mt	per pcs =	P -
69	pcs	10 mm diam rebars x 6mt	per pcs =	P -
12	kgs	G.I. Tie wire, Ga. 16	per kgs =	P -
7	pcs	1/4" x 4' x 8' ordinary plywood	per pcs =	P -

240	bd ft	2" x 2" rough lumber		per	bd ft	=	P	-	
270	bd ft	2" x 3" rough lumber		per	bd ft	=	P	-	
8	kl	Assorted nails		per	kl	=	P	-	
32	bgs	Portland cement		per	bgs	=	P	-	
1.75	cu m	River Sand		per	cu m	=	P	-	
3.50	cu m	Gravel		per	cu m	=	P	-	
Sub-Total								P	-
2. LABOR									
<i>Qty</i>	<i>Description</i>		<i>Rate</i>	<i>No. of Days</i>		<i>Amount</i>			
	Foreman		per day	for	day	=	P	-	
	Skilled		per day	for	day	=	P	-	
	Unskilled		per day	for	day	=	P	-	
Sub-Total								P	-
A. DIRECT COST								P	-
B. INDIRECT COST								P	-
OCM				15%	P	-			
Contractor's Profit				10%	P	-			
VAT				5%	P	-			
TOTAL ITEM COST								P	-
Unit Cost								P	-

Item **901** : **Masonry Works**

Qty = **6.57** sq m

1. MATERIALS									
<i>Qty</i>	<i>Unit</i>	<i>Description</i>		<i>Unit Cost</i>			<i>Amount</i>		
5	pcs	10 mm diam rebars x 6mt		per	pcs	=	P	-	
0.25	kg	G.I. Tie wire, Ga. 16		per	kg	=	P	-	
8	bgs	Portland cement		per	bgs	=	P	-	
0.75	cu m	River Sand		per	cu m	=	P	-	
85	pcs	4" CHB		per	pcs	=	P	-	
Sub-Total								P	-
2. LABOR									
<i>Qty</i>	<i>Description</i>		<i>Rate</i>	<i>No. of Days</i>		<i>Amount</i>			
	Foreman		per day	for	day	=	P	-	
	Skilled		per day	for	day	=	P	-	
	Unskilled		per day	for	day	=	P	-	
Sub-Total								P	-
A. DIRECT COST								P	-
B. INDIRECT COST								P	-
OCM				15%	P	-			
Contractor's Profit				10%	P	-			
VAT				5%	P	-			
TOTAL ITEM COST								P	-
Unit Cost								P	-

Item **1003** : **Carpentry Works**

Qty = **29.60** sq m

1. MATERIALS									
<i>Qty</i>	<i>Unit</i>	<i>Description</i>		<i>Unit Cost</i>			<i>Amount</i>		
75	bd ft	2 x 2 ceiling joist		per	bd ft	=	P	-	
95	bd ft	2" x 3", rough lumber, studdings		per	bd ft	=	P	-	
9	pc	4.5mm thk fibercement board		per	pc	=	P	-	
20	pc	12mm x 200mm fiber cement planks		per	pc	=	P	-	
7	pc	12mm x 300mm fiber cement fascia		per	pc	=	P	-	
4	pc	19mm thk plyboard		per	pc	=	P	-	
2	set	W-1, 1.20 x 1.20m Wood Casement		per	set	=	P	-	
1	set	D-1, 0.70 x 2.10m Flush door with door jamb		per	set	=	P	-	
1	lot	Assorted hardwares (catches, pullers, etc.)		per	lot	=	P	-	
1	lot	Assorted nails		per	lot	=	P	-	
Sub-Total								P	-
2. LABOR									
<i>Qty</i>	<i>Description</i>		<i>Rate</i>	<i>No. of Days</i>		<i>Amount</i>			
	Foreman		per day	for	day	=	P	-	
	Skilled		per day	for	day	=	P	-	

Unskilled		per day	for	day =	P	-
Sub-Total					P	-
A. DIRECT COST					P	-
B. INDIRECT COST					P	-
OCM		15%	P	-		
Contractor's Profit		10%	P	-		
VAT		5%	P	-		
TOTAL ITEM COST					P	-
Unit Cost					P	-

Item **1014** : **Prepainted Metal Roofing Sheets** Qty:= **1.00** lot

1. MATERIALS						
Qty	Unit	Description	Unit Cost		Amount	
30	1 m	4.5 mm THK Corrugated Pre-painted roofing	per	1 m =	P	-
5	pc	Ridge Roll	per	pc =	P	-
1	pc	Cutting disc, 4"	per	pc =	P	-
120	pc	Tek screw	per	pc =	P	-
Sub-Total					P	-
2. LABOR						
Qty	Description	Rate	No. of Days		Amount	
	Foreman	per day	for	day =	P	-
	Skilled	per day	for	day =	P	-
	Unskilled	per day	for	day =	P	-
Sub-Total					P	-
3. EQUIPMENT RENTAL						
Qty	Description	Operated Rate	No. of Days		Amount	
	Power drill	per day	for	day =	P	-
	Edger	per day	for	day =	P	-
	Minor Tools (10% of Labor)				P	-
Sub-Total					P	-
A. DIRECT COST					P	-
B. INDIRECT COST					P	-
OCM		15%	P	-		
Contractor's Profit		10%	P	-		
VAT		5%	P	-		
TOTAL ITEM COST					P	-
Unit Cost					P	-

Item **1032** : **Painting Works** Qty = **45.60** sq m

1. MATERIALS						
Qty	Unit	Description	Unit Cost		Amount	
2	gal	Paint, flat latex paint	per	gal =	P	-
2	gal	Paint, semi-gloss, bagueo green	per	gal =	P	-
2	gal	Paint, semi-gloss, white	per	gal =	P	-
1	gal	Paint, flat wall enamel	per	gal =	P	-
2	gal	Paint, QDE, brown	per	gal =	P	-
1	gal	Red oxide primer	per	gal =	P	-
2	gal	Plexi Bond	per	gal =	P	-
1	gal	Thinner, Paint	per	gal =	P	-
1	gal	Thinner, Lacquer	per	gal =	P	-
1	set	Roller Handle, 7" w/ pan	per	set =	P	-
1	pc	Brush, Paint 4"	per	pc =	P	-
2	pc	Brush, Paint 2"	per	pc =	P	-
1	gal	Easytite with hardener	per	gal =	P	-
1	lot	Assorted sandpaper	per	lot =	P	-
1	kg	Stupa rug	per	kg =	P	-
Sub-Total					P	-
2. LABOR						
Qty	Description	Rate	No. of Days		Amount	
	Foreman	per day	for	day =	P	-
	Skilled	per day	for	day =	P	-
	Unskilled	per day	for	day =	P	-

Unskilled		per day	for	day =	P	-
Sub-Total					P	-
A. DIRECT COST					P	-
B. INDIRECT COST					P	-
OCM		15%	P	-		
Contractor's Profit		10%	P	-		
VAT		5%	P	-		
TOTAL ITEM COST					P	-
Unit Cost					P	-

Item **1014** : **Prepainted Metal Roofing Sheets** Qty:= **1.00** lot

1. MATERIALS						
Qty	Unit	Description	Unit Cost		Amount	
30	1 m	4.5 mm THK Corrugated Pre-painted roofing	per	1 m =	P	-
5	pc	Ridge Roll	per	pc =	P	-
1	pc	Cutting disc, 4"	per	pc =	P	-
120	pc	Tek screw	per	pc =	P	-
Sub-Total					P	-
2. LABOR						
Qty	Description	Rate	No. of Days		Amount	
	Foreman	per day	for	day =	P	-
	Skilled	per day	for	day =	P	-
	Unskilled	per day	for	day =	P	-
Sub-Total					P	-
3. EQUIPMENT RENTAL						
Qty	Description	Operated Rate	No. of Days		Amount	
	Power drill	per day	for	day =	P	-
	Edger	per day	for	day =	P	-
	Minor Tools (10% of Labor)				P	-
Sub-Total					P	-
A. DIRECT COST					P	-
B. INDIRECT COST					P	-
OCM		15%	P	-		
Contractor's Profit		10%	P	-		
VAT		5%	P	-		
TOTAL ITEM COST					P	-
Unit Cost					P	-

Item **1032** : **Painting Works** Qty = **45.60** sq m

1. MATERIALS						
Qty	Unit	Description	Unit Cost		Amount	
2	gal	Paint, flat latex paint	per	gal =	P	-
2	gal	Paint, semi-gloss, bagueo green	per	gal =	P	-
2	gal	Paint, semi-gloss, white	per	gal =	P	-
1	gal	Paint, flat wall enamel	per	gal =	P	-
2	gal	Paint, QDE, brown	per	gal =	P	-
1	gal	Red oxide primer	per	gal =	P	-
2	gal	Plexi Bond	per	gal =	P	-
1	gal	Thinner, Paint	per	gal =	P	-
1	gal	Thinner, Lacquer	per	gal =	P	-
1	set	Roller Handle, 7" w/ pan	per	set =	P	-
1	pc	Brush, Paint 4"	per	pc =	P	-
2	pc	Brush, Paint 2"	per	pc =	P	-
1	gal	Easytite with hardener	per	gal =	P	-
1	lot	Assorted sandpaper	per	lot =	P	-
1	kg	Stupa rug	per	kg =	P	-
Sub-Total					P	-
2. LABOR						
Qty	Description	Rate	No. of Days		Amount	
	Foreman	per day	for	day =	P	-
	Skilled	per day	for	day =	P	-
	Unskilled	per day	for	day =	P	-

Contractor's Profit	10%	P	-	
VAT	5%	P	-	
TOTAL ITEM COST				P -
Unit Cost				P -

Item **SPL-2** : **Demolition**

Qty = **1.00** lot

1. LABOR				
<i>Qty</i>	<i>Description</i>	<i>Rate</i>	<i>No. of Days</i>	<i>Amount</i>
	Foreman	per day	for day =	P -
	Unskilled	per day	for day =	P -
<i>Sub-Total</i>				P -
A. DIRECT COST				P -
B. INDIRECT COST				P -
	OCM	0%	P -	
	Contractor's Profit	10%	P -	
	VAT	5%	P -	
TOTAL ITEM COST				P -
Unit Cost				P -

GRAND TOTAL	PHP	-
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Project Title : **REHABILITATION OF GUARD HOUSE at the CAMPER 2**
 Location : John Hay Special Economic Zone
 Subject : BILL OF QUANTITIES

Item **102** : **Excavation, Backfilling and Disposal** Qty = **4.40** cu m

1. LABOR				
Qty	Description	Rate	No. of Days	Amount
	Foreman	per day	for day =	P -
	Unskilled	per day	for day =	P -
Sub-Total				P -
A. DIRECT COST				P -
B. INDIRECT COST				P -
	OCM	15%	P -	
	Contractor's Profit	10%	P -	
	VAT	5%	P -	
TOTAL ITEM COST				P -
Unit Cost				P -

Item **403** : **Metal Works** Qty = **1.00** lot

1. MATERIALS				
Qty	Unit	Description	Unit Cost	Amount
12	pc	50mm Ø G.I. Pipe (schedule 40)	per pc =	JHMC Stock
6	pc	50mm x 75mm x 1.0mm C-purlins	per pc =	P -
1	pc	Grinding disc 4" Ø	per pc =	P -
5	pc	Hacksaw blade	per pc =	P -
3	kl	Welding rod	per kl =	P -
Sub-Total				P -
2. LABOR				
Qty	Description	Rate	No. of Days	Amount
	Foreman	per day	for day =	P -
	Skilled	per day	for day =	P -
	Laborer	per day	for day =	P -
Sub-Total				P -
3. EQUIPMENT RENTAL				
Qty	Description	Operated Rate	No. of Days	Amount
	Welding machine	per day	for day =	P -
	Edger	per day	for day =	P -
	Minor Tools (5% of Labor)			P -
Sub-Total				P -
A. DIRECT COST				P -
B. INDIRECT COST				P -
	OCM	15%	P -	
	Contractor's Profit	10%	P -	
	VAT	5%	P -	
TOTAL ITEM COST				P -
Unit Cost				P -

Item **900** : **Reinforced Concrete Works** Qty = **3.69** cu m

1. MATERIALS				
Qty	Unit	Description	Unit Cost	Amount
25	pc	12 mm diam rebars x 6mt	per pc =	P -
46	pc	10 mm diam rebars x 6mt	per pc =	P -
6	kg	G.I. Tie wire, Ga. 16	per kg =	P -
7	pc	1/4" x 4' x 8' ordinary plywood	per pc =	P -
175	bd ft	2" x 2" rough lumber	per bd ft =	P -

200	bd ft	2" x 3" rough lumber		per	bd ft	=	P	-	
10	kl	Assorted nails		per	kl	=	P	-	
17	bg	Portland cement		per	bg	=	P	-	
1	cu m	River Sand		per	cu m	=	P	-	
2	cu m	Gravel		per	cu m	=	P	-	
Sub-Total								P	-
2. LABOR									
<i>Qty</i>	<i>Description</i>		<i>Rate</i>	<i>No. of Days</i>		<i>Amount</i>			
	Foreman		per day	for	day	=	P	-	
	Skilled		per day	for	day	=	P	-	
	Unskilled		per day	for	day	=	P	-	
Sub-Total								P	-
A. DIRECT COST								P	-
B. INDIRECT COST								P	-
OCM				15%	P	-			
Contractor's Profit				10%	P	-			
VAT				5%	P	-			
TOTAL ITEM COST								P	-
Unit Cost								P	-

Item **901** : **Masonry Works**

Qty = **10.40** sq m

1. MATERIALS									
<i>Qty</i>	<i>Unit</i>	<i>Description</i>		<i>Unit Cost</i>			<i>Amount</i>		
4	pc	10 mm diam rebars x 6mt		per	pc	=	P	-	
0.25	kg	G.I. Tie wire, Ga. 16		per	kg	=	P	-	
6	bg	Portland cement		per	bg	=	P	-	
0.75	cu m	River Sand		per	cu m	=	P	-	
65	pc	4" CHB		per	pc	=	P	-	
Sub-Total								P	-
2. LABOR									
<i>Qty</i>	<i>Description</i>		<i>Rate</i>	<i>No. of Days</i>		<i>Amount</i>			
	Foreman		per day	for	day	=	P	-	
	Skilled		per day	for	day	=	P	-	
	Unskilled		per day	for	day	=	P	-	
Sub-Total								P	-
A. DIRECT COST								P	-
B. INDIRECT COST								P	-
OCM				15%	P	-			
Contractor's Profit				10%	P	-			
VAT				5%	P	-			
TOTAL ITEM COST								P	-
Unit Cost								P	-

Item **1003** : **Carpentry Works**

Qty = **1.00** lot

1. MATERIALS									
<i>Qty</i>	<i>Unit</i>	<i>Description</i>		<i>Unit Cost</i>			<i>Amount</i>		
12	bd ft	2 x 2 ceiling joist		per	bd ft	=	P	-	
68	bd ft	2" x 3", rough lumber, studdings		per	bd ft	=	P	-	
3	pc	4.5mm thk fibercement board		per	pc	=	P	-	
2	pc	19mm thk plyboard		per	pc	=	P	-	
3	set	W-1, 1.20 x 1.20m Wood Casement		per	set	=	P	-	
1	set	D-1, 0.70 x 2.10m Flush door with door jamb		per	set	=	P	-	
1	lot	Assorted hardwares (door knob & hinges)		per	lot	=	P	-	
1	lot	Assorted nails		per	lot	=	P	-	
Sub-Total								P	-
2. LABOR									
<i>Qty</i>	<i>Description</i>		<i>Rate</i>	<i>No. of Days</i>		<i>Amount</i>			
	Foreman		per day	for	day	=	P	-	
	Skilled		per day	for	day	=	P	-	
	Unskilled		per day	for	day	=	P	-	
Sub-Total								P	-
A. DIRECT COST								P	-
B. INDIRECT COST								P	-

OCM	15%	P	-	
Contractor's Profit	10%	P	-	
VAT	5%	P	-	
TOTAL ITEM COST				P -
Unit Cost				P -

Item **1014** : **Prepainted Metal Roofing Sheets** Qty = **1.00** lot

1. MATERIALS					
Qty	Unit	Description	Unit Cost		Amount
30	1 m	4.0 mm THK Corrugated Pre-painted roofing	per	1 m =	P -
5	pc	Ridge Roll	per	pc =	P -
1	pc	Cutting disc, 4"	per	pc =	P -
150	pc	Tek screw	per	pc =	P -
Sub-Total					P -
2. LABOR					
Qty	Description	Rate	No. of Days		Amount
	Foreman	per day	for	day =	P -
	Skilled	per day	for	day =	P -
	Unskilled	per day	for	day =	P -
Sub-Total					P -
3. EQUIPMENT RENTAL					
Qty	Description	Operated Rate	No. of Days		Amount
	Power drill	per day	for	day =	P -
	Edger	per day	for	day =	P -
	Minor Tools (10% of Labor)				P -
Sub-Total					P -
A. DIRECT COST					P -
B. INDIRECT COST					P -
OCM 15% P -					
Contractor's Profit 10% P -					
VAT 5% P -					
TOTAL ITEM COST					P -
Unit Cost					P -

Item **1032** : **Painting Works** Qty = **45.60** sq m

1. MATERIALS					
Qty	Unit	Description	Unit Cost		Amount
2	gal	Paint, flat latex paint	per	gal =	P -
3	gal	Paint, semi-gloss, baguio green	per	gal =	P -
3	gal	Paint, semi-gloss, white	per	gal =	P -
1	gal	Paint, flat wall enamel	per	gal =	P -
3	gal	Paint, QDE, brown	per	gal =	P -
1	gal	Red oxide primer	per	gal =	P -
2	gal	Plexi Bond	per	gal =	P -
1	gal	Thinner, Paint	per	gal =	P -
1	gal	Thinner, Lacquer	per	gal =	P -
1	set	Roller Handle, 7" w/ pan	per	set =	P -
1	pc	Brush, Paint 4"	per	pc =	P -
2	pc	Brush, Paint 2"	per	pc =	P -
1	gal	Easytite with hardener	per	gal =	P -
1	lot	Assorted sandpaper	per	lot =	P -
1	kg	Stupa rug	per	kg =	P -
Sub-Total					P -
2. LABOR					
Qty	Description	Rate	No. of Days		Amount
	Foreman	per day	for	day =	P -
	Skilled	per day	for	day =	P -
	Unskilled	per day	for	day =	P -
Sub-Total					P -
A. DIRECT COST					P -
B. INDIRECT COST					P -
OCM 15% P -					
Contractor's Profit 10% P -					

VAT	5%	P	-	
TOTAL ITEM COST				P -
Unit Cost				P -

Item **1101** : **Electrical Works** Qty = **1.00** lot

1. MATERIALS					
Qty	Unit	Description	Unit Cost		Amount
1	pc	Service Entrance Cap, 1/2" diameter	per	pc =	P -
10	pc	Locknut and Bushing, 1/2" diameter	per	pc =	P -
3	pc	PVC Electrical conduit 1/2" diameter	per	pc =	P -
3	pc	LED bulb, 9w	per	pc =	P -
2	pc	Emergency light, LED Type	per	pc =	P -
3	pc	Receptacle outlet	per	pc =	P -
4	set	Convenience outlet	per	set =	P -
1	set	Weather Proof Convenience Outlet, 2 Gang	per	set =	P -
8	mt	#2.0 mm2 THHN stranded copper wire	per	mt =	P -
15	mt	#3.5 mm2 THHN stranded copper wire	per	mt =	P -
1	set	Two-gang switch with plate	per	set =	P -
5	pc	Utility box	per	pc =	P -
2	pc	Junction box	per	pc =	P -
1	can	Solvent cement	per	can =	P -
1	roll	Electrical tape, plastic	per	roll =	P -
1	pc	Breaker Housing, 4 Holes	per	pc =	P -
1	pc	Circuit Breaker, 40 amps, bolt-on, 230 V	per	pc =	P -
2	pc	Circuit breaker, 15 amps, bolt-on, 230 V	per	pc =	P -
Sub-Total					P -
2. LABOR					
Qty	Description	Rate	No. of Days		Amount
	Foreman	per day	for	day =	P -
	Skilled	per day	for	day =	P -
	Unskilled	per day	for	day =	P -
Sub-Total					P -
A. DIRECT COST					P -
B. INDIRECT COST					P -
		OCM	15%	P -	
		Contractor's Profit	10%	P -	
		VAT	5%	P -	
TOTAL ITEM COST					P -
Unit Cost					P -

Item **SPL-1** : **Construction Safety & Health** Qty = **1.00** l.s.

1. MATERIALS					
Qty	Unit	Description	Unit Cost		Amount
	md	Safety Shoes	per	md =	P -
	md	Safety Harness	per	md =	P -
	md	Safety Helmet	per	md =	P -
	md	Safety Gloves	per	md =	P -
Sub - Total					P -
2. LABOR					
Qty	Description	Rate	No. of Days		Amount
	Part Time Safety Practitioner	per day	for	days =	P -
	First Aider	per day	for	days =	P -
Sub - Total					P -
A. DIRECT COST					P -
B. INDIRECT COST					P -
		OCM	0%	P -	
		Contractor's Profit	10%	P -	
		VAT	5%	P -	
TOTAL ITEM COST					P -
Unit Cost					P -

Item **SPL-2** : **Demolition** Qty = **1.00** lot

1. LABOR				
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<i>Qty</i>	<i>Description</i>	<i>Rate</i>	<i>No. of Days</i>	<i>Amount</i>
	Foreman	per day	for day =	P -
	Unskilled	per day	for day =	P -
<i>Sub-Total</i>				P -
A. DIRECT COST				P -
B. INDIRECT COST				P -
	OCM	0%	P -	
	Contractor's Profit	10%	P -	
	VAT	5%	P -	
TOTAL ITEM COST				P -
Unit Cost				P -
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Section IX. Bidding Forms

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Bid Form

Date: _____

ITB¹ N°: *Infra-04-2018*

To: *[name and address of PROCURING ENTITY]*

Address: *[insert address]*

We, the undersigned, declare that:

- (a) We have examined and have no reservation to the Bidding Documents, including Addenda, for the Contract *[insert name of contract]*;
- (b) We offer to execute the Works for this Contract in accordance with the Bid and Bid Data Sheet, General and Special Conditions of Contract accompanying this Bid;

The total price of our Bid, excluding any discounts offered below is: *[insert information]*;

The discounts offered and the methodology for their application are: *[insert information]*;

- (c) Our Bid shall be valid for a period of *[insert number]* days from the date fixed for the Bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (d) If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract;
- (e) Our firm, including any subcontractors or suppliers for any part of the Contract, have nationalities from the following eligible countries: *[insert information]*;
- (f) We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;
- (g) Our firm, its affiliates or subsidiaries, including any subcontractors or suppliers for any part of the Contract, has not been declared ineligible by the Funding Source;
- (h) We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and

¹ If ADB, JICA and WB funded projects, use IFB.

- (i) We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.
- (j) **We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the [Name of Project] of the [Name of the Procuring Entity].**
- (k) **We acknowledge that failure to sign each and every page of this Bid Form, including the Bill of Quantities, shall be a ground for the rejection of our bid.**

Name: _____

In the capacity of: _____

Signed: _____

Duly authorized to sign the Bid for and on behalf of: _____

Date: _____

Form of Contract Agreement

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

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

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be attached, deemed to form, and be read and construed as integral part of this Agreement, to wit:
 - (a) General and Special Conditions of Contract;
 - (b) Drawings/Plans;
 - (c) Specifications;
 - (d) Invitation to Bid;
 - (e) Instructions to Bidders;
 - (f) Bid Data Sheet;
 - (g) Addenda and/or Supplemental/Bid Bulletins, if any;
 - (h) Bid form, including all the documents/statements contained in the Bidder’s bidding envelopes, as annexes, and all other documents submitted (e.g., Bidder’s response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity’s bid evaluation;
 - (i) Eligibility requirements, documents and/or statements;
 - (j) Performance Security;
 - (k) Notice of Award of Contract and the Bidder’s conforme thereto;
 - (l) Other contract documents that may be required by existing laws and/or the Entity.
3. In consideration of the payments to be made by the Entity to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Entity to execute and complete the Works and remedy any defects therein in conformity with the provisions of this Contract in all respects.

4. The Entity hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects wherein, the Contract Price or such other sum as may become payable under the provisions of this Contract at the times and in the manner prescribed by this Contract.

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

Signed, sealed, delivered by _____ the _____ (for the Entity)

Signed, sealed, delivered by _____ the _____ (for the Contractor).

Binding Signature of Procuring Entity

Binding Signature of Contractor

[Addendum showing the corrections, if any, made during the Bid evaluation should be attached with this agreement]

Omnibus Sworn Statement

REPUBLIC OF THE PHILIPPINES)
CITY/MUNICIPALITY OF _____) S.S.

AFFIDAVIT

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

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

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

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

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

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

If a partnership, corporation, cooperative, or joint venture: I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for *[Name of the Project]* of the *[Name of the Procuring Entity]*, accompanied by the duly notarized Special Power of Attorney, Board/Partnership Resolution, or Secretary's Certificate, whichever is applicable;

3. *[Name of Bidder]* is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board;

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

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

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

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

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

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

7. *[Name of Bidder]* complies with existing labor laws and standards; and

8. *[Name of Bidder]* is aware of and has undertaken the following responsibilities as a Bidder:

a) Carefully examine all of the Bidding Documents;

b) Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract;

c) Made an estimate of the facilities available and needed for the contract to be bid, if any; and

d) Inquire or secure Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*.

9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

IN WITNESS WHEREOF, I have hereunto set my hand this ___ day of ___, 20__ at _____, Philippines.

Bidder's Representative/Authorized Signatory

SUBSCRIBED AND SWORN to before me this ____ day of [month] [year] at [place of execution], Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her [insert type of government identification card used], with his/her photograph and signature appearing thereon, with no. _____ and his/her Community Tax Certificate No. _____ issued on ____ at _____.

Witness my hand and seal this ____ day of [month] [year].

NAME OF NOTARY PUBLIC

Serial No. of Commission _____

Notary Public for _____ until _____

Roll of Attorneys No. _____

PTR No. _____ [date issued], [place issued]

IBP No. _____ [date issued], [place issued]

Doc. No. _____

Page No. _____

Book No. _____

Series of _____

* This form will not apply for WB funded projects.

Bid-Securing Declaration

(REPUBLIC OF THE PHILIPPINES)

CITY OF _____) S.S.

X-----X

Invitation to Bid [*Infra-04-2018*]

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

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid-Securing Declaration.
2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1 (f), of the IRR of RA 9184; without prejudice to other legal action the government may undertake.
3. I/We understand that this Bid-Securing Declaration shall cease to be valid on the following circumstances:
 - a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
 - b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right;
 - c. I am/we are declared as the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

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

[Insert NAME OF BIDDER'S AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]

Affiant

SUBSCRIBED AND SWORN to before me this __ day of [month] [year] at [place of execution], Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her [insert type of government identification card used], with his/her photograph and signature appearing thereon, with no. _____.

Witness my hand and seal this ____ day of [month] [year].

NAME OF NOTARY PUBLIC

Serial No. of Commission _____
Notary Public for _____ **until** _____
Roll of Attorneys No. _____
PTR No. __, [date issued], [place issued]
IBP No. __, [date issued], [place issued]
Doc. No. ____
Page No. ____
Book No. ____
Series of _____.

