

PHILIPPINE BIDDING DOCUMENTS

Government of the Republic of the Philippines

PROPOSED INFRASTRUCTURE DEVELOPMENT OF BOQ MAIN BUILDING PHASE I

for the

Bureau of Quarantine (BOQ)

PUBLIC BIDDING NO. 19-225-5

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Section I. Invitation to Bid

Invitation to Bid

for the

PROPOSED INFRASTRUCTURE DEVELOPMENT OF BOQ MAIN BUILDING PHASE I

PUBLIC BIDDING NO. 19-225-5

1. The *Bureau of Quarantine* and the *Procurement Service*, through the *General Appropriations Act for FY 2017* intends to apply the sum of *Eighteen Million One Hundred Seventy Two Thousand Eight Hundred Seventy Pesos and 15/100* (Php 18,172,870.15) being the Approved Budget for the Contract (ABC) to payments under the contract for the **PROPOSED INFRASTRUCTURE DEVELOPMENT OF BOQ MAIN BUILDING PHASE I for the Bureau of Quarantine (BOQ)**. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The *Procurement Service* now invites bids for:

Qty	Item / Description	Approved Budget for the contract	Delivery Period
1 Lot	PROPOSED INFRASTRUCTURE DEVELOPMENT OF BOQ MAIN BUILDING PHASE I	₱ 18,172,870.15	The Intended Completion Date is within Three Hundred Thirty (330) Calendar Days as reflected in the Notice to Proceed.

Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in particularly, in Section II. Instructions to Bidders. For purposes of this project, similar contracts shall refer to General Building under **Building or Industrial Plant** with a contract amount of at least **50%** of the ABC.

3. Bidding will be conducted through open competitive bidding procedures using non-discretionary “pass/fail” criterion as specified in the 2016 Revised Implementing Rules and Regulations (IRR) of Republic Act 9184 (RA 9184), otherwise known as the “Government Procurement Reform Act.”

Bidding is restricted to Filipino citizens/sole proprietorships, cooperatives, and partnerships or organizations with at least seventy five percent (75%) interest or outstanding capital stock belonging to citizens of the Philippines.

4. Interested bidders may obtain further information from *Procurement Service* and inspect the Bidding Documents at the address given below from 8:00 AM to 5:00PM. *Except Saturday, Sunday and Holidays.*
5. A complete set of Bidding Documents may be acquired by interested Bidders from the address below and upon payment of Bidding Documents in the amount as follows:

Qty	Item / Description	Amount of Bid Documents
1 Lot	PROPOSED INFRASTRUCTURE DEVELOPMENT OF BOQ MAIN BUILDING PHASE I	₱ 2,000.00

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. For the conduct of Site Inspection, below are the following contact person/s:

<i>Engr. Corinthia Aguilay</i>	corinthia.boq@gmail.com
<i>Ar. Bob Harvey Rosco</i>	bobharvey.rosco@gmail.com
<i>Ar. Christian Lorilla</i>	cmlorilla.boq@gmail.com
7. The schedule of bidding activities is as follows:

ACTIVITIES	SCHEDULE	VENUE
Posting of Invitation to Bid	July 16, 2019	www.philgeps.gov.ph & www.ps-philgeps.gov.ph/home/
Issuance and Availability of Bid Documents	July 16, 2019	PS-DBM, CRISTOBAL ST., PACO, MANILA
Site Inspection	July 22 to 26, 2019 8:00AM – 4:00PM	25 th and AC Delgado St. Port Area, Manila
Pre-Bid Conference	July 31, 2019; 10:00 AM	PS-DBM, CRISTOBAL ST., PACO, MANILA
Deadline of Request for Clarification	August 2, 2019	PS-DBM, CRISTOBAL ST., PACO, MANILA
Issuance of Supplemental Bid Bulletin	August 7, 2019	www.philgeps.gov.ph & www.ps-philgeps.gov.ph/home/
Deadline of Submission and Opening of Bids	August 14, 2019; 10:00 AM	PS-DBM, CRISTOBAL ST., PACO, MANILA

8. Bids must be duly received by the Procurement Division V (PDV) of the Procurement Service at the address below on or before **August 14, 2019; 10:00 AM**. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 18.

The bidders or their duly authorized representatives may attend the opening of bids. Late bids shall not be accepted.

9. The *Procurement Service* 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.
10. For further information, please refer to:

PROCUREMENT SERVICE
RR Road, Cristobal St., Paco, Manila
689-7750
pd5@ps-philgeps.gov.ph

(Sgd.)

WEBSTER M. LAUREÑANA
Chairperson
Bids and Awards Committee V

Section II. Instructions to Bidders

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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 ProcuringEntity 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 ProcuringEntity (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. Governmentowned orcontrolled 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:

NFCC = [(Current assets minus current liabilities) (15)] 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 bid 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.	Two percent (2%)

<p><i>For biddings conducted by 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>(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** Clause31;

(ii) fails to furnish performance security in accordance with **ITB** Clause32.

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 GOPas 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)
(a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank. <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>	Ten percent (10%)

<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 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.</p>	<p>Thirty percent (30%)</p>

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 <i>the Procurement Service (PS)</i>.</p> <p>The name of the Contract is PROPOSED INFRASTRUCTURE DEVELOPMENT OF BOQ MAIN BUILDING PHASE I for the Bureau of Quarantine (BOQ).</p> <p>The identification number of the Contract is PUBLIC BIDDING NO. 19-225-5.</p>
2	<p>The Funding Source is:</p> <p>The Government of the Philippines (GoP) through the <i>General Appropriations Act for 2017</i> in the amount of <i>Eighteen Million One Hundred Seventy Two Thousand Eight Hundred Seventy Pesos and 15/100</i> (Php 18,172,870.15).</p> <p>The name of the Project is PROPOSED INFRASTRUCTURE DEVELOPMENT OF BOQ MAIN BUILDING PHASE I for the Bureau of Quarantine (BOQ).</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)	<p>For this purpose, similar contracts shall refer to General Building under Building or Industrial Plant with a contract amount of at least <i>Nine Million Eighty Six Thousand Four Hundred Thirty Five Pesos and 8/100</i> (Php 9,086,435.08)</p> <p>Adjusted contract price must be supported by the bidder's computation.</p> <p><i>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.</i></p>
8.1	Subcontracting is not allowed.
8.2	Not applicable.

9.1	<p>The Procuring Entity will hold a pre-bid conference for this Project on July 31, 2019; 10:00 AM at</p> <p>Procurement Service Bids and Awards Committee V 2nd Floor, PS Complex, RR Road Cristobal St., Paco, Manila</p>
10.1	<p>Clarifications should be sent to:</p> <p>PROCUREMENT SERVICE - DBM Bids and Awards Committee V R.R. Road, Cristobal St., Paco, Manila Telephone No: 689-7750 pd5@ps-philgeps.gov.ph</p>
10.4	<p>No further instructions.</p>
12.1	<p>No further instructions.</p>
12.1 (a) (i)	<p>The valid PhilGEPS Certificate of Registration (Platinum Membership) shall reflect the updated eligibility documents. Should the Annex A of said Certificate reflects not updated documents, the bidder shall submit, together with the Certificate certified true copies of the updated documents.</p> <p>Notwithstanding the above requirements, the bidder may opt to submit the following eligibility documents in lieu of the submission of the PhilGEPS Certificate of Registration (Platinum Membership):</p> <ul style="list-style-type: none"> a. Business Registration; b. Mayor's Permit for 2019; c. 2018 Audited Financial Statement; d. Valid and current Tax Clearance; and e. Valid and Applicable PCAB License <p>In the latter case, the bidder shall submit a valid PhilGEPS Registration Certificate as part of post-qualification documents.</p>
12.1 (a) (ii)	<p>Bidders must also submit the following:</p> <ol style="list-style-type: none"> 1. Duly signed Statement of all Ongoing Government & Private Construction Contracts including contracts awarded but not yet started. <i>The supporting documents stated in the said form shall be submitted during post-qualification evaluation</i> 2. Duly signed Statement showing the bidder's Single Largest Completed Contract which is similar in nature. <i>The supporting documents stated in the said form shall form part of the</i>

	<p><i>Technical Eligibility requirements.</i></p> <p>See sample forms under Section IX. Bidding Forms.</p>																											
12.1(a)(iii)	<p>The minimum PCAB Registration required for this project is Category C&D, under General Building Classification Small B / Special PCAB License in case of Joint Venture</p>																											
12.1(b)(ii.2)	<p>The minimum work experience requirements for key personnel are the following:</p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th style="text-align: center;"><i>Key Personnel</i></th> <th style="text-align: center;"><i>Minimum Years of Relevant Experience</i></th> <th style="text-align: center;"><i>Quantity</i></th> </tr> </thead> <tbody> <tr> <td>Project Manager (Architect or Civil Engineer) (RA 1080)</td> <td style="text-align: center;">10</td> <td style="text-align: center;">1</td> </tr> <tr> <td>Project Engineer (Registered Civil Engineer)</td> <td style="text-align: center;">5</td> <td style="text-align: center;">1</td> </tr> <tr> <td>Project Architect (RA 1080)</td> <td style="text-align: center;">5</td> <td style="text-align: center;">1</td> </tr> <tr> <td>Project Electrical Engineer (REE)</td> <td style="text-align: center;">5</td> <td style="text-align: center;">1</td> </tr> <tr> <td>Project Mechanical Engineer (RME)</td> <td style="text-align: center;">5</td> <td style="text-align: center;">1</td> </tr> <tr> <td>Project Sanitary Engineer</td> <td style="text-align: center;">5</td> <td style="text-align: center;">1</td> </tr> <tr> <td>Safety Officer (DOLE accredited)</td> <td style="text-align: center;">5</td> <td style="text-align: center;">1</td> </tr> <tr> <td>Construction Foreman</td> <td style="text-align: center;">10</td> <td style="text-align: center;">1</td> </tr> </tbody> </table> <p>Relevant Experience with respect to the projects as defined under BDS Clause 5.4 (b).</p> <p>Note:</p> <ul style="list-style-type: none"> • <i>Personnel shall submit their respective resumes and photocopy of valid Professional Regulation Commission (PRC) license for professionals and Certificate/s of Training issued by DOLE – accredited training centers and the like for safety officers to support educational attainment, work experience and professional certifications.</i> <p>See sample forms under Section IX. Bidding Forms.</p>	<i>Key Personnel</i>	<i>Minimum Years of Relevant Experience</i>	<i>Quantity</i>	Project Manager (Architect or Civil Engineer) (RA 1080)	10	1	Project Engineer (Registered Civil Engineer)	5	1	Project Architect (RA 1080)	5	1	Project Electrical Engineer (REE)	5	1	Project Mechanical Engineer (RME)	5	1	Project Sanitary Engineer	5	1	Safety Officer (DOLE accredited)	5	1	Construction Foreman	10	1
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12.1(b)(ii.3)	<p>The minimum major equipment requirements are the following:</p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th style="text-align: center;">Item No.</th> <th style="text-align: center;">Number of Units</th> <th style="text-align: center;">Equipment</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.</td> <td style="text-align: center;">1</td> <td>Backhoe (0.8 m³ bucket – minimum) with concrete breaker</td> </tr> <tr> <td style="text-align: center;">2.</td> <td style="text-align: center;">1</td> <td>Vibratory Roller (10 MT minimum) SP56</td> </tr> <tr> <td style="text-align: center;">3.</td> <td style="text-align: center;">1</td> <td>Cement Mixer (1 bagger)</td> </tr> </tbody> </table> <p><i>Note: The bidder may choose the ff. options:</i></p> <p><i>1. Proof of ownership to be included in the Technical Proposal; or</i></p>	Item No.	Number of Units	Equipment	1.	1	Backhoe (0.8 m ³ bucket – minimum) with concrete breaker	2.	1	Vibratory Roller (10 MT minimum) SP56	3.	1	Cement Mixer (1 bagger)															
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	<p>2. Lease Agreement between lessor and lessee and Proof of Ownership of the Lessor to be included in the Technical Proposal; or</p> <p>3. Purchase Agreement between the bidder and the owner. Certification of availability of equipment from the vendor for the duration of the project</p> <p>Equipment pledge to this project shall not be pledge to another construction project, if the same will affect the completion time. However such equipment will be acceptable provided that it will not coincide with another construction project schedule.</p> <p>See sample forms under Section IX. Bidding Forms.</p>
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 in the prescribed form. 2. Detailed estimates including a summary sheet indicating the unit prices of construction materials, labor rates and equipment and rentals used in coming up with the bid (VAT shall be 12% of the sum of Direct Costs & Total Mark-Up) 3. Cash flow by quarter and payment schedules.
13.2	The ABC is <i>Eighteen Million One Hundred Seventy Two Thousand Eight Hundred Seventy Pesos and 15/100 (Php 18,172,870.15)</i> . Any bid with a financial component exceeding this amount shall not be accepted.
14.2	No further instruction.
15.4	No further instruction.
16.1	The bid prices shall be quoted in Philippine Pesos.
16.3	No further instructions.
17.1	The Bid Security shall be valid for <i>One Hundred Twenty (120) Calendar Days</i> from the date of opening of bids.
18.1	<p>The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:</p> <ol style="list-style-type: none"> 1. The amount of <i>Three Hundred Sixty Three Thousand Four Hundred Fifty Seven Pesos and 40/100 (P 363,457.40)</i>, if bid security is in form of cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; 2. The amount of Nine Hundred Eight Thousand Six Hundred Forty Three Pesos and 54/100 (P 908,643.54), if bid security is in form of Surety

	<p>Bond;</p> <p>Payable to Procurement Service - DBM</p>
18.2	<p>The Bid Security shall be valid for <i>One Hundred Twenty (120) Calendar Days</i> from the date of opening of bids.</p>
20.3	<p>Each Bidder shall submit One (1) original and Two (2) copies of the first and second components of its bid.</p> <p>The duplicate- <i>i.e. copy 1 and copy 2</i>, must include the same documents as that of the original set of documents. In case, however, a bidder opts to submit cash as bid security, copy 1 and copy 2 need not contain photocopies of the same.</p>
21	<p>The address for submission of bids is:</p> <p><i>Procurement Service</i> <i>Bids and Awards Committee V</i> <i>2nd Floor, PS Complex, RR Road</i> <i>Cristobal St., Paco, Manila</i></p> <p>The deadline for submission of bids is on August 14, 2019; 10:00 AM.</p>
24.1	<p>The place of bid opening is:</p> <p><i>PS Conference Room</i> <i>2nd Floor, PS Complex, RR Road</i> <i>Cristobal St., Paco, Manila</i></p> <p>The bid opening will be held immediately after the deadline of submission of bids.</p> <p>During the opening of bids only the authorized representative shall be allowed to assist in the opening of bids. In case the authorized representative is not present, any representative of the authorized representative may be allowed to assist in the opening of bids provided that a separate written authorization from the authorized representative shall be presented for the purpose. Provided that the authorized representative is duly authorized to issue such further authority and the same is reflected in the Board Resolution and/or Secretary's Certificate.</p>
24.2	<p>No further instructions.</p>
24.3	<p>No further instructions.</p>
27.3	<p>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.</p>
27.4	<p>No further instructions.</p>

28.2	<p>No licenses and permits required.</p> <p>For purposes of Post-qualification the following document(s) shall be required to be submitted within five (5) calendar days from receipt of notice from the BAC:</p> <ol style="list-style-type: none"> 1. Income Tax Returns for year 2018 (BIR Form 1701 or 1702); 2. Latest Value Added Tax Returns (Forms 2550M and 2550Q) or Percentage Tax Returns (Form 2551M) covering the months of January, February, March, April, May and June 2019 <p>The income tax and business tax returns stated above should have been filed through the Electronic Filing and Payment System (eFPS).</p> <ol style="list-style-type: none"> 3. Proof of Ongoing and Awarded Contracts but not yet started contracts as identified in the Statement of All Ongoing Government & Private Contracts, which shall include the following: <ol style="list-style-type: none"> a. Notice to Proceed or equivalent; and b. Certificate of accomplishments signed by the Owner or Owner's Project Engineer or in case the project was just awarded or still in the mobilization stage, a certification in lieu of the certificate of accomplishment signed by the Owner or Owner's Project Engineer should be submitted. 4. Submission of evidences¹ as proof of compliance with the bidder's actual offer, <i>if applicable</i>. 5. Valid PhilGEPS Certificate of Registration (Platinum Membership), if bidder opted to submit the eligibility documents under the Certificate during opening of bids. <p><i>N.B. Documents submitted during post-qualification as part of post-qualification documents must be certified by the authorized representative to be true copy/ies from the original.</i></p>
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¹ In the column "Bidder's Compliance", the bidder must state "comply" against each of the individual parameters of each specification corresponding to performance parameter of equipment offered. Statement of "comply" must be supported by evidence in a bidders bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's or distributor's un-amended sales literature, unconditional statements or specification and compliance issued by the manufacturer or distributor, samples, independent test data etc., as appropriate.

31.4(f)	<p>The following documents shall be submitted by the winning bidder within <i>ten (10) calendar days</i> from receipt of the Notice of Award (NOA):</p> <ul style="list-style-type: none">a) Construction Schedule and S-curve;b) Manpower Schedule;c) Construction Methods;d) Equipment utilization schedule;e) Construction Safety and Health Program approved by the Department of Labor and Employment, evidence of submission as received by DOLE is acceptable).f) Program Evaluation and Review Technique (PERT)/Critical Path Method (CPM).
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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 ProcuringEntity'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 ProcuringEntity, 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 ProcuringEntity'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 HoPEa 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 GCCSub-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 retentions 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	The Intended Completion Date is within Three Hundred Thirty (330) <i>Calendar Days as reflected in the Notice to Proceed.</i>								
1.22	The Procuring Entity is: Procurement Service PS Complex, RR Road, Cristobal Street Paco, Manila								
1.23	The Procuring Entity's Representative is the Bureau of Quarantine (BOQ) Project Manager concerned.								
1.24	The Site is located as follows: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Qty</th> <th style="text-align: center;">Item / Description</th> <th style="text-align: center;">Location</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1 Lot</td> <td style="text-align: center;">PROPOSED INFRASTRUCTURE DEVELOPMENT OF BOQ MAIN BUILDING PHASE I</td> <td style="text-align: center;">25th and AC Delgado St. Port Area, Manila</td> </tr> </tbody> </table>	Qty	Item / Description	Location	1 Lot	PROPOSED INFRASTRUCTURE DEVELOPMENT OF BOQ MAIN BUILDING PHASE I	25 th and AC Delgado St. Port Area, Manila		
Qty	Item / Description	Location							
1 Lot	PROPOSED INFRASTRUCTURE DEVELOPMENT OF BOQ MAIN BUILDING PHASE I	25 th and AC Delgado St. Port Area, Manila							
1.28	The Start Date is <i>the effective date indicated in the Notice to Proceed.</i>								
1.31	PROPOSED INFRASTRUCTURE DEVELOPMENT OF BOQ MAIN BUILDING PHASE I for the Bureau of Quarantine (BOQ).								
2.2	No further instructions.								
5.1	The BOQ shall give possession of all parts of the Site to the Contractor beginning on the date of effectivity of contract until the date of its termination and/or project completion.								
6.5	The Contractor shall employ the following Key Personnel : <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="text-align: center;"><i>Project Manager (Architect or Civil Engineer) (RA 1080)</i></td> </tr> <tr> <td style="text-align: center;">Project Engineer (Registered Civil Engineer)</td> </tr> <tr> <td style="text-align: center;">Project Architect (RA 1080)</td> </tr> <tr> <td style="text-align: center;">Project Electrical Engineer (REE)</td> </tr> <tr> <td style="text-align: center;">Project Mechanical Engineer (RME)</td> </tr> <tr> <td style="text-align: center;">Project Sanitary Engineer</td> </tr> <tr> <td style="text-align: center;">Safety Officer (DOLE accredited)</td> </tr> <tr> <td style="text-align: center;">Construction Foreman</td> </tr> </tbody> </table>	<i>Project Manager (Architect or Civil Engineer) (RA 1080)</i>	Project Engineer (Registered Civil Engineer)	Project Architect (RA 1080)	Project Electrical Engineer (REE)	Project Mechanical Engineer (RME)	Project Sanitary Engineer	Safety Officer (DOLE accredited)	Construction Foreman
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Project Mechanical Engineer (RME)									
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Safety Officer (DOLE accredited)									
Construction Foreman									
7.4(c)	No further instructions.								

7.7	No further instructions.
8.1	No further instructions.
10	The site investigation reports are: Not Applicable.
12.3	No further instructions.
12.5	<p>In case of permanent structures, such as buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures: Fifteen (15) years.</p> <p>In case of semi-permanent structures, such as buildings of types 1, 2, and 3 as classified under the National Building Code of the Philippines, concrete/asphalt roads, concrete river control, drainage, irrigation lined canals, river landing, deep wells, rock causeway, pedestrian overpass, and other similar semi-permanent structures: Five (5) years.</p> <p>In case of other structures, such as Bailey and wooden bridges, shallow wells, spring developments, and other similar structures: Two (2) years.</p> <p>The Certificate of Acceptance shall be issued by the Bureau of Quarantine after the one-year defects and failures, if any, shall have been repaired by the Contractor to the satisfaction of Bureau of Quarantine. This Certificate shall be issued after the submission of an Acceptance Report by the Inspectorate Team and the warranty certificate of the Contractor.</p> <p>However, the contractor will still be held responsible for structural defects and/or failure of the completed project.</p>
13	All partners to the joint venture shall be jointly and severally liable to the Procuring Entity.
15	<p>Contractor's All Risk Insurance (CARI)</p> <p>Shall be submitted by the contractor as part of the requirements for contract facilitation.</p>
18.3(h)(i)	No further instructions.
21.2	<p>The Arbiter is:</p> <p>Construction Industry Arbitration Commission 2/F & 5/F, Executive Center Bldg. 369 Gil Puyat Ave., cor. Makati Ave., Makati City Tel. Nos.: (+632) 895.4424 / 895.6826 Fax No.: (+632) 897.9336 E-mail: ciapdti@yahoo.com</p>

29.1	Not applicable.
31.1	The contractor shall submit the Program of Work to the Procuring Entity's Representative within <i>ten (10) calendar days</i> from acceptance of Notice of Award.
31.3	The period between Program of Work updates is monthly . The amount to be withheld for late submission of an updated Program of Work is 2% of the contract amount.
34.3	The Funding Source is the <i>Government of the Philippines</i> .
39.1	The amount of the advance payment is fifteen percent (15%) of the Contract Price , which shall be given to the Contractor not later than fifteen (15) calendar days from receipt of the Contractor's request, subject to the requirements under GCC Clause 39.2.
40.1	No further instructions.
51.1	The "As built" drawings, signed and sealed by License Engineers/Professionals, shall be submitted in hard copies and e-copies (in autocad format) within ten (10) calendar days after project completion. For projects with duly approved variation (change/amendment/ deviation in the original scope of work), the Contractor is required to submit three (3) sets of "as built" drawings after the project completion but prior to the conduct of the TIAC.
51.2	The amount to be withheld for failing to produce "As Built" drawings by the date required is two percent (2%) of the Contract Price or the non-issuance of the Retention Money

Section VI. Specifications

(Please see separately compiled Technical Specifications and Scope of Work for Phase I)

PROJECT	:	PROPOSED INFRASTRUCTURE DEVELOPMENT OF BOQ MAIN BUILDING PHASE 1
LOCATION	:	25th and AC DELGADO ST. PORT AREA, MANILA
OWNER	:	BUREAU OF QUARANTINE
SUBJECT	:	SCOPE OF WORK

1.0 GENERAL REQUIREMENTS

- 1.1 The work under this Contract shall consist of the furnishing of all materials, labor, tools, equipment and other facilities to complete the entire works with satisfactory performance of all works necessary to complete the project ready for use and legal occupancy the PROPOSED INFRASTRUCTURE DEVELOPMENT OF BOQ MAIN BUILDING PHASE 1 with strict conformity to the issued plans, specifications and other related contract documents.
- 1.2 The Contractor shall carry all expenditures for necessary permits, temporary water, power, telephone supply and all required testing of materials, etc. for this project and shall be included in the contractor's proposal.

2.0 TEMPORARY FACILITIES

Temporary facilities shall include but not limited to the following items:

- 2.1 Site/Field Office. It should be elevated to avoid flooding during wet season.
- 2.2 Workshops, warehouse, stockpile areas and storage for materials, equipment, spares, fuel and oil but in no way pose as a hazard to the premises.
- 2.3 Construction camp for housing and accommodation of Contractor's employees.
- 2.4 Workforce facilities including potable water supply, electrical power requirements, drainage, sewage disposal, sanitation, first aid, refuse collection, temporary fences and barricades and fire protection facilities.

3.0 MOBILATION & DEMOLITION

- 3.1 The contractor upon receipt of the notice to proceed shall immediately mobilize. Mobilization shall include all activities and associated costs for transportation of contractor's personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the contractor's operations at the site.

- 3.2 Demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not required or included in the contract from the site; including the disassembly, removal, and site cleanup of offices, buildings, and other facilities assembled on the site specifically for this contract.

4.0 DEMOLITION, SITE CLEARING, GRUBBING AND LEVELING

- 4.1 Demolish all existing unnecessary structures at the site prior to construction.
- 4.2 Clear the construction site from all debris, vegetation and any organic material to ground level for a workable environment.
- 4.3 Unless otherwise specified by the Owner, disposal of debris and other excess materials which is of no value to the Owner shall be done by the Contractor.
- 4.4 Protect from damage existing utility lines within the site and adjoining areas. Any existing utility line that will be damaged shall be repaired by the Contractor and utility lines which will be affected by the construction implementation shall be relocated without extra cost to the Owner.
- 4.5 Protect all salvaged materials taken from cleaning and grubbing. They shall be the property of the Owner and the Contractor shall not appropriate any of it. The Contractor shall be responsible for the salvaged materials until the completion of construction unless removed by the Owner.
- 4.6 Pile neatly all salvaged materials of value in a location designated by the Owner without extra compensation, provided the Contractor is not required to pile such materials more than fifty (50) meters distance from the building constructed.
- 4.7 Apply soil poisoning for all building perimeter area.

5.0 LAYOUT, MARKINGS AND ELEVATIONS

- 5.1 Correct layout of alignment, grade and elevations shall be executed and corresponding markings properly indicated before any permanent structure is installed.

6.0 SITEWORKS/EARTHWORKS

- 6.1 Excavation shall be done for the preparation of the following:
 - a. All footings including those for columns and walls. Specific scope is referred under reinforced concrete works, this section.

- b. All pipes to be installed below the natural grade line for water, sanitary, drainage lines including catch basins and other plumbing utilities.
- 6.2 Backfilling shall be done after the installation and/or construction of structures for which excavation was made.
- 6.3 Backfilled soil shall be at least 95% compacted.
- 6.4 Provide 50mm thick lean concrete on top of well compacted soil and placed below the mat footing.
- 6.5 Provide 100mm thick compacted gravel bedding placed below wall footings, ground floor slabs, ramps, ground stairs, and tie beams.
- 6.6 Include soil poisoning for all footings, CHB undergrade and ground floor slab. Soil poisoning shall be done by an approved, duly licensed and certified termite and pest control company to guarantee the soil poisoning works.

7.0 CONCRETE WORKS

- 7.1 Includes the construction of all foundation, wall footings, pedestals, ground floor slab on fill, suspended reinforced slab, stairs, columns, beams and all structures made of concrete.
- 7.2 Includes all formwork/s and scaffoldings necessary to mold and support all reinforced structures.
- 7.3 Includes laboratory testing of all cement, aggregates, additives and other materials and should pass the required testing specifications.
- 7.4 Includes curing of concrete until design strength has been attained.
- 7.5 Observe proper placement of reinforcing steel bars, their distances and alignment before pouring of concrete.
- 7.6 Provide standard reinforced concrete lintel beam for all window and door openings.
- 7.7 Provision of 4000psi Mat Footing, Wall Footing, Tie Beams, Columns, Beams, Stairs & Slabs.
- 7.8 All concrete must be deposited, vibrated & cured in accordance with the latest edition of American Concrete Institute (ACI-318)
- 7.9 Follow as per plans, Supplemental Drawings and Technical Specifications to complete this item of work.

8.0 STEEL WORKS

- 8.1 Reinforcing steel shall be locally manufactured, deformed billet steel bars conforming to Philippine Standard, Grade 414 (60, 000 psi) for 16mmØ and larger bars and Grade 275 (40,000 psi) for 12mmØ and smaller bars.
- 8.2 All reinforcement shall be placed according to the approved drawings. The Contractor shall provide sufficient bar supports, ties, anchors and other accessories to hold all bars securely in place.
- 8.3 Includes cutting, bending and fabrication of sized rebar/s for all corresponding concrete structures.
- 8.4 Unless detailed on drawings, all stirrups shall be held in place by bar spacers. Reinforcing steel shall be cleaned of oil, grease, scale, rust or other coatings which will impair bond.
- 8.5 Follow as per plans, Supplemental Drawings and Technical Specifications to complete this item of work.

9.0 FORMWORKS AND SCAFFOLDINGS

- 9.1 Supply and install sufficient forms, scaffoldings, bracings and staging during all phases of construction work especially for all reinforced concrete works.
- 9.2 Concrete form shall be wood, plywood, steel or other suitable materials. Form surfaces requiring standard or special finish shall be plywood or a non-absorptive hand pressed fiberboard or other suitable materials.
- 9.3 Plywood shall not be less than 12 mm thick and shall be free from irregularities, dents and sags. Forms shall be coated with non-staining form coating compound such as form oil of the approved make.
- 9.4 All used plywood, form lumber and scaffolding lumber shall be surrendered to the end user.

10.0 MASONRY WORKS

- 10.1 All exterior walls shall be 150mm thick CHB, Toilet walls shall be 100mm thick CHB.
- 10.2 Provide 10mmφ horizontal bars on every third layer and 12mmφ vertical bars @ 600mmo.c. for 150mm CHB, 10mmφ vertical bars @ 600mmo.c. for 100mm CHB. The bars shall be welded and doweled to the horizontal and vertical structures.
- 10.3 All newly constructed masonry walls (both faces), concrete columns and other concrete structures shall be plastered.
- 10.4 All CHB wall connections shall be provided with stiffener columns and constructed simultaneously.

- 10.5 All concrete surfaces damaged during cleaning, grubbing and hauling shall be repaired or retouched by plaster finish.

11.0 ARCHITECTURAL AND OTHER FINISHING WORKS

1. FLOOR FINISH

- 1.1 Provide 600mm x 600mm porcelain ceramic glazed floor tiles as specified on the plans.
- 1.2 Provide 600mm x 600mm porcelain ceramic unglazed floor tiles as specified on the plans.
- 1.3 Provide 300mm x 300mm unglazed ceramic floor tiles as specified on the plans.
- 1.4 Provide slope towards drain.
- 1.5 Tiles should be aligned perpendicular in both ways to coincide with alignment of wall tiles.
- 1.6 Provide sufficient color grout or tile adhesive for tiling works.

2. WALL FINISH

- 2.1 Apply plain cement plaster for all exterior CHB walls.
- 2.2 Provide 300mm x 300mm vitreous tiles for all Toilet walls. Provide same or derivative color tile trim at all external corner of walls.
- 2.3 All walls shall be vertically aligned.

12.0 DOORS AND WINDOWS

1. Provide the following doors as specified on plans.
 - 1.1 D1 – (900mm x 2100mm) single leaf spray painted hollow metal swing door with 300mmx600mm vision panel in 6mm thk tempered glass on clear anodized glazing bead. Gauge 18 steel door & jamb, primed and painted.
 - 1.2 D2 – (600mm x 2100mm) single leaf acrylic painted hollow metal swing door with louver. Gauge 18 steel door & jamb, primed and painted.
2. Supply & installation of aluminum framed windows on powder coated finish complete with hardwares and fixing accessories to complete the works per Architect's specifications
 - W-1 (W 5.85m x H 2.50 m) Combination of fixed and awning type window on powder coated aluminium frame with 6mm tempered glass

- W-2 (W 3.65m x H 2.50 m) Combination of fixed and awning type window on powder coated aluminium frame with 6mm tempered glass.
- W-3 (W 3.65m x H 2.50 m) Combination of fixed and awning type window on powder coated aluminium frame with 6mm tempered glass.
- W-4 (W 2.80M x H 1.20 m) Awning type window on powder coated aluminium frame with 6mm thick tempered glass.
- W-5 (W 2.10M x H 1.20 m) Awning type window on powder coated aluminium frame with 6mm thick tempered glass.
- W-6 (W 0.80M x H 2.60 m) Awning type window on powder coated aluminium frame with 6mm thick tempered glass.
- W-7 (W 0.80M x H 0.80 m) Awning type window on powder coated aluminium frame with 6mm thick tempered glass.

13.0 PAINTING WORKS

- 13.1 For exterior painting, apply elastomeric paint on the walls exposed to weather. Whereas walls covered with Aluminum composite panel shall not be applied with paint.
- 13.2 Application of neutralizer to all masonry and concrete surfaces to be painted
- 13.3 Automotive lacquer painting for all wooden racks, lockers, drawers, cabinets, shelves, etc.
- 13.4 Follow manufacturer's instructions for painting process.
- 13.5 Color selection of surfaces shall be approved by Architect-in-Charge prior to painting.
- 13.6 All painting works shall be done in accordance with plans and specifications.

14.0 ALUMINUM COMPOSITE PANEL CLADDING WORKS/SYSTEM

- 14.1 Supply and Install Aluminum Composite Panels, stiffener frames, mounting bracket, sealant and other fixing accessories as manufacturers standard.
- 14.2 Aluminum composite panels shall be installed in accordance with the plans.
- 14.3 Before installation of Aluminum Composite Panel Cladding, the site condition should be assessed. All exterior openings shall be closed and weather tight and have stable and dry environment. The Composite

Panels should only be installed after the trades, such as plaster and screed-work have been completed and the environment is dry and stable.

15.0 PLUMBING WORKS

15.1 PLUMBING FIXTURES:

- a. Provide and install all new Plumbing Fixtures (BPS Approved) as indicated in the plan complete with trims, fittings and accessories as per manufacturer's standards
- b. Provision of dual Flush Tank type water closet.
- c. Provision of stainless steel spray hose/bidet.
- d. Provide necessary cleats, brackets and anchors as needed.
- e. Provide and install concealed floor drain as indicated in plans.

15.2 POTABLE WATER SYSTEM

- a. Provide complete water supply to all new fixtures including trims and fittings (except water closet), as indicated in plans.
- b. Provide Air Cap Chamber for every supply pipe of fixtures.
- c. Install control/isolation valves for every group of fixtures as indicated;
- d. Bidet /Spray hose shall have separate line connected to the line of shower/faucet of lavatory with separate isolation valve.
- e. Provision of HDPE Water Tank, booster pump, and accessories.
- f. Provision of pump house. Verify actual location.
- g. Provision of labeling "POTABLE WATER" every 6.0 meters.

15.3 NON-POTABLE WATER SYSTEM (WATER CLOSET)

- a. Provide separate water supply to all water closets including trims and fittings, as indicated in plans. (use dark colored pipe, Provision of "Non Potable Water, Do Not Drink" labelling)
- b. Provide Air Cap Chamber for every supply pipe of fixtures.
- c. Install control/isolation valves for every group of fixtures as indicated;
- d. Provision of Stainless Steel Water Tank, booster/jet pump, bladder tank and accessories.
- e. Tap the water supply pipes to non-potable water storage (for phase 2). Verify actual location.

15.4 SEWER AND VENT SYSTEM

- a. Provide complete sewer line and vent system to all fixtures including trims and fittings, as indicated in plans.
- b. Provide vent cap to all vent stacks installed/recessed at walls or above ceiling, as indicated in plans.
- c. Provide pipe hangers and brackets as needed.
- d. Provision of septic tank, as indicated in plans.
- e. Tap sewer line to septic tank.

15.5 STORM DRAINAGE SYSTEM

- a. Provide storm drainage system to include upvc square and round pipe, catch basins and concrete drainage pipes as indicated in plans. Tap to main drainage.
- b. Maintain minimum slope of 2% of pipe laying.
- c. Provision of pipe hangers and brackets every 1.5 meters
- d. Provision of catch basins, as indicated in plans.

15.6 CONDENSATE DRAIN/ AIR CONDITIONING DRAIN SYSTEM

- a. Provide complete air conditioning drain system to all air conditioning unit including trims and fittings, as indicated in plans using indirect waste connection.
- b. Provide pipe hangers and brackets as needed.
- c. Tap to Storm Drainage.

15.7 OTHERS

- a. Provision of face mirror every lavatory.
- b. Testing and commissioning with the presence of DOH HFDB representative and the owner (BOQ) is a must prior to concealing of roughing-ins.
- c. All sanitary works shall be performed to the fullest satisfaction of the architect/ Master Plumber in-charge and the owner.
- d. Submit test result certificates, e.g. Leak Test, prior to acceptance of the project.
- e. Submit as-built plans signed and sealed by duly Registered Master Plumber/Sanitary Engineer.

16.0 ELECTRICAL WORKS

16.1 Electrical Works

1. Furnish and Installation of the following:
 - a. Lighting System
 - b. Power System
 - c. Wiring Devices
 - d. Roughing-In\
 - e. Wires and Cables
 - f. Panelboards and Circuit Breakers
 - g. Auxiliary System
 - h. Grounding System
 - i. Miscellaneous
2. Provide and install Main Distribution Panel to the extension New Main Building as indicated in the electrical plans.
3. Provide and install new sets of feeder lines for Main Panels of the Main Building and tap to Administration Building electrical room.
4. Provide and install all termination of electrical and auxiliary system at the ground floor.
5. Provide and install new Fire Detection and Alarm System.
6. Provide and install grounding system to all panelboards inside the electrical rooms.
7. Tap Paging System & CATV Administration Building Cable TV system.
8. Provide and install Closed Circuit Television system with at LCD monitor at the maintenance room of Main Building.
9. Provide and tap TEL/DATA auxiliary system and tap to administration Building as indicated in the plans.
10. All works herein shall be directed and supervised by a duly Registered Electrical Engineer as enforced by the New Electrical Engineering Law or R.A.7920. He shall be on site to overlook the proper implementation of the project.
11. Provide and install directories to all panelboard. Check and balance all power and lighting loads as to their respective circuit breaker assignments as indicated in the load schedule.
12. Follow as per plan and the specifications and the scope of work to complete the project and render it to be operational.
13. Furnish and install other supporting materials and equipment deem necessary to complete the project.

14. Provide required and necessary documents such as Insulation Test to all wires and cables installed, as-built electrical plans and other as may be needed prior to testing and commissioning.

15. Testing and commissioning.

16.2 Verification of Existing Condition

The Contractor/Electrical Engineer in charge of the project shall EXAMINE THE SITE, VERIFY & INVESTIGATE THE EXISTING CONDITIONS that may affect the work during construction.

16.3 Permits and Approval

The CONTRACTOR shall obtain at his own expense all permits required by the Government Authorities. Work shall not be started unless the plans have been approved by said authorities and a valid wiring permit has been issued. Likewise, the CONTRACTOR shall secure from the utility power company their approval of the plans prior to start of the work.

All work done in violation of the above conditions shall be at the risk of subsequent rejection. The replacement or correction of such rejected work shall be the sole responsibility of the CONTRACTOR.

The CONTRACTOR shall obtain all necessary allowances, pay all royalties and the like, in connection with the use of any patented devices or systems and save the OWNER from any claim or lawsuit arising from such use.

16.4 Intent of the Contractor Documents

The Engineering documents are complementary and what is called for one shall be as binding as if called for by all. The intent of the plans and technical specifications is to prescribe a complete work, which the Contractor shall undertake to do in full compliance with the Approved Documents. The Contractor shall perform all items of work covered and stipulated in the technical specifications on the issued plans.

It is not intended that the drawing shall show every details of all such items whether mentioned or not in the specifications shown or not in the plans. Such items shall be furnished and installed if necessary to complete the items of work.

16.5 Safety Measures

It is the Contractor's responsibility to take extra precautions in the process of implementing the project. As a matter of policy, the Engineer is required to install warning signs for the safety of the general public. The concerned Contractor will be held personally liable for any accidents that may occur during the execution of the project.

16.6 Other Works

1. Cleaning and Hauling Debris
 - a. All demolished/removed materials that are still usable will not be allowed to be use and shall be properly stocked, inventoried and turned over to in writing to the owner/end-user.
 - b. The Contractor shall take due care to protect existing structures which will be affected and unaffected by the work to be implemented.
 - c. The Contractor shall at all time keep the premises free from the accumulation of waste or rubbish, cause by his subordinates or work. Upon completion of each item of work, they shall remove all rubbish materials from and within the site including all his tools, scaffoldings and surplus materials. The Contractor shall leave his work "Broom and Cleaned".

17.0 MECHANICAL WORKS

17.1 VENTILATION AND AIR CONDITIONING

- a. Provide all materials, equipment and perform all the work necessary for the complete installation of the ventilation and air conditioning system. The contractor shall submit a detailed working drawings of HVAC system for approval of the ENGINEER prior to fabrication and/or installation of the system.
- b. Supply and installation of air conditioners complete with pedestal, hangers, brackets, insulated refrigerant pipes, and condensate drainage pipes.
- c. Supply and installation of exhaust fans complete with air ducts, stainless steel air diffuser, hangers and brackets.
- d. Provision of a complete electric power supply, instrumentation and control system. Provide a complete electrical power supply system. Conduits shall be made of rigid steel or EMT. Corrugated plastic or PVC is **NOT** acceptable. Steel conduits shall be anchored properly at 1.2 meters on center.
- e. Chipping and restoration works of all areas affected by the installation of the air conditioning system.
- f. Test run and commissioning of the ventilation and air conditioning system.
- g. Anything that has been omitted in any item of work or materials usually furnished, which are necessary for the completion of the ventilation and air conditioning system outlined herein before.

18.0 OTHER ITEMS

1. Contractor is required to have all members of his construction crew to wear uniform T-shirt (one color) bearing the Contractor's name and address or identification.
2. Contractor is required to have all the members of his crew wear personal protective equipment (PPE) in the construction site.

19.0 CONSTRUCTION CLEARANCES

1. Secure from Architect/Engineer-in-Charge the following clearances prior to commencing requisite work:
 - 1.1 Wall layout clearance - verification of measurements and distances
 - 1.2 Final paint-coat clearance - inspection of surface leveling and absence of surface depressions or bulges prior to final painting.
 - 1.3 Electrical fixture, device, equipment installation clearance - verification of location, adherence to design specifications of electrical roughing-ins.
 - 1.4 Plumbing fixture, accessory installations clearance - verification of location, adherence to design specifications of plumbing roughing-ins.
 - 1.5 Mechanical fixture, device, equipment installation clearance - verification of location, adherence to design specifications of mechanical roughing-ins.
 - 1.6 Certificate from supplier, manufacturer, dealer, indicating specifications of branded material installed in construction.

20.0 SAFETY MEASURES

1. Provide and install safety warning signs for the workers and the general public.
2. Provide additional safety measures/ programs during the execution/ implementation of the project.

21.0 PERMITS, LICENSES AND TAXES

1. All permit, licenses and taxes shall be shouldered by the Contractor.
2. Carry all expenditures for temporary water, electrical and telephone connections.

22.0 TIME OF COMPLETION

The construction of the Proposed Infrastructure Development of BOQ Main Building Phase 1 shall be completed in **Three Hundred Thirty Calendar Days (330)**.

PROJECT	:	PROPOSED INFRASTRUCTURE DEVELOPMENT OF BOQ MAIN BUILDING PHASE 1
LOCATION	:	25th and AC DELGADO ST. PORT AREA, MANILA
OWNER	:	BUREAU OF QUARANTINE
SUBJECT	:	TECHNICAL SPECIFICATIONS

DIVISION 01: **GENERAL REQUIREMENTS**

DIVISION 02: **EARTHWORK**

DIVISION 03: **CONCRETE**

DIVISION 04: **MASONRY**

DIVISION 05: **METAL**

DIVISION 06: **WOOD AND PLASTIC**

DIVISION 07: **THERMAL AND MOISTURE PROTECTION**

DIVISION 08: **DOORS AND WINDOWS**

DIVISION 09: **FINISHES**

DIVISION 10: **SPECIALTIES**

DIVISION 11: **EQUIPMENT**

DIVISION 12: **FURNISHING**

DIVISION 13: **SPECIAL CONDITION**

DIVISION 14: **CONVEYING SYSTEM**

DIVISION 15: **MECHANICAL / PLUMBING**

DIVISION 16: **ELECTRICAL**

DIVISION 01: GENERAL REQUIREMENTS

SECTION 1A GENERAL PARAGRAPHS

- 1A.1 **All applicable provisions of the different provisions of the Specification for each work trade shall apply for all items cited in this summary.**
- 1A.2 **Materials and workmanship** deemed necessary to complete the work **but NOT specifically mentioned** in the Specifications, Working Drawings, or in the other Contract Documents, shall be supplied and installed by the Contractor **without extra cost to the Owner. Such materials shall be of the highest quality available**, and installed or applied in a workman-like manner at prescribed or appropriate locations.
- 1A.3 Materials specifically mentioned in this summary shall be installed following efficient and sound engineering and construction practice, and especially as per Manufacturer's application for installation specifications which shall govern all works alluded to in this Specification.
- 1A.4 Materials and finishes for on-site improvements and facilities as listed below as part of the scope of work and shall be supplied and **installed by the Contractor without extra cost to the Owner. (must consider in the general requirements on estimates)**
- 1A.4.1 Demolition, clearing and site grading works in preparation for construction and eventually, for landscaping.
- 1A.4.2 Construction of a) Perimeter fencing and gates of the specific site as directed by the Architect, b) Walks, ramps, steps, posts and miscellaneous slabs, c) Retaining structures, d) Below grade structures such as septic vault, manhole yard, basins, trenches, e) Steel gratings, open drains, field drains and cesspool as may be required.
- 1A.4.3 Exterior utility lines, raceways systems, fixtures, breakers, switches, buzzers, of control at their terminals, and including fittings and accessories as required by the specialty trades under plumbing, electrical and communication works.
- 1A.4.4 Hydro-pneumatic tanks, booster pump, magnetic starter, deep-well pump, pump casing and other necessary equipment and facilities.
- 1A.5 **Off-site improvements** shall generally be under the **responsibility of the Owner** and not included in the Contract, **with the exception of the following** which shall be part of the contractor's work: **(include in the gen. req the connection fee to the utility companies)**
- 1A.5.1 Concreting of walkway slab. This work shall neatly make connections to the existing walkway and shall incorporate necessary utility ways under as required.
- A.5.2 **Permanent connections**, to the local utility lines for electrical, water, drainage and sewer including equipments, facilities, materials, fees and/or work which utility companies or authorities may require of the applicant Owner.

- 1A.6 Prior to concrete driveway pavement work, the contractor shall coordinate the works for storm drainage, sanitary sewer, water service and electrical piping in order that all said piping have been installed and tested prior to concrete pavement work.
- 1A.8 Dust Control. The contractor shall control the generation of dust and flying particles from his operations to prevent creation of a nuisance to the public.

SECTION 1B CONTROL OF MATERIALS

1B.1 Approval of Materials.

- 1B.1.1 Unless otherwise specified, **only new materials and equipment shall be incorporated in the work. All materials and equipments furnished by the Contractor shall be subject to the inspection and approval of the Owner or his authorized representative. No material shall be delivered to the work without prior approval of the Owner.**
- 1B.1.2 As soon as possible after the contract has been awarded, the **Contractor shall submit to the Owner, shop drawings as required** and other such data as may be required, relating to materials and equipment he proposes to furnish for the work. Such data shall be in sufficient details to enable the Owner to identify the particular product and to form an opinion as to its conformity to the specifications.
- 1B.1.3 The Contractor shall submit the shop drawings, data and samples sufficiently early to permit considerations and approval before materials are necessary for incorporation in the work. Any delay of approval resulting from the Contractor's failure to submit shop drawings, samples or data promptly shall not be used as a basis of a claim.
- 1B.1.4 In order to demonstrate the proficiency of workmen or to facilitate the choice among several textures, types, finishes and surfaces, the **Contractor shall provide such samples of workmanship or finish as may be required.**
- 1B.1.5 The materials and equipment used on the work shall correspond to the approved samples or other data.
- 1B.1.6 Whenever reference is made in the contract documents to national and international standards, the reference is to the latest edition including all revisions.

1B.2 Quality of Materials.

- 1B.2.1 Before material of any kind is used on the work, **the Contractor shall submit samples of this material for the approval of the Owner** at the request of the Owner or as required in the technical specifications, and must obtain such approval. No material shall be used on the work that is in any way inferior to that of the approved samples.
- 1B.2.2 Materials and equipment to be incorporated in the work under the contract shall be new and unused, free from all defects and imperfections and of first class commercial quality and shall be suitable for the use intended.
- 1B.2.3 Unless otherwise authorized by the Owner, all materials and equipment that are specified to be in accordance with referenced standard specifications as cited in the technical specifications shall meet the requirements of the latest published editions of the applicable standard specifications, the revisions thereof and amendments thereto.

1B.2 Handling and Storage of Materials

- 1B.2.1 All materials and equipment to be incorporated in the work shall be handled and stored by the Contractor before, during and after shipment in a manner to

prevent warping, twisting, bending, breaking, chipping, rusting and any injury, theft or damage of any kind whatsoever to the material or equipment.

- 1B.2.2 Cement, sand and gravel shall be stored under a roof and off the ground and shall be kept dry at all times. **All structural steel and miscellaneous steel and reinforcing steel shall be stored off the ground or otherwise to prevent accumulation of dirt or grease and in a position to prevent accumulation of standing water and to minimize rusting.** Beams shall be stored with the webs vertical. Brick, block and similar masonry products shall be handled and stored in a manner to reduce breakage, chipping, cracking and spalling to a minimum.
- 1B.2.3 All materials and equipments which, in the opinion of the Owner, have become so damaged as to be unfit for the use intended or specified, shall be removed from the site of work and the Contractor shall receive no compensation for the damaged material or equipment or its removal.

SECTION 1C CONSTRUCTION QUALITY CONTROL

- 1C.1 General. The Contractor shall establish and maintain quality control for testing of materials to be furnished by him in accordance with the specifications and for determination of densities as required in the specifications to assure compliance as specified.
- 1C.2 Sampling and Testing. All samples for testing and approval shall be provided by the Contractor at no additional cost to the Owner
- 1C.3 Records of jobsite material inspections must be received prior to installation or incorporation of materials into the contract work. The contractor will not be permitted to build upon or conceal any feature of the work containing uncorrected defects.

DIVISION 02: EARTHWORK

- 2.1 Scope. This section shall the furnishing of all labor, equipment and materials and performing all operations in connection with the excavation and the removal from the site of all surplus excavated materials and debris, in strict accordance with the requirements of the drawings, or as specified herein.
- 2.2 Stakes and Batter Boards.
- 2.2.1 The Contractor shall stake out the building **accurately and shall establish grades**, after which the **approval by the Owner or the Project Manager** shall be secured **before any excavation work is commenced**.
- 2.2.2 Basic batter boards and **basic reference marks** as **directed the Project Manager** shall be erected at such places **where they will not be disturbed during construction**.
- 2.3 Excavations.
- 2.3.1 All excavation shall be unclassified and shall include clay, silt, sand, gravel, hardpan, loose shale, loose stone in masses and any other materials of any character found within the excavation area.
- 2.3.2 The Contractor shall make the necessary excavation for foundations to lines and grades indicated in the drawings. **Structural excavations shall be to be depths indicated, reckoned either from the natural ground line or the finished grade, whichever is lower.** The indicated depth is the minimum requirement for excavation. However, if in the option of the Engineer, the soil bearing pressure not attained at the indicated depth, the Contractor shall extend the excavations until the required soil bearing pressure is obtained. **All excavations extended down to two (2) feet or less from the indicated depths shall be at the Contractor's expense. Excavations in excess of the two (2) feet limit shall be considered as extra work**, whereby equitable adjustment in the contract price shall be made on the unit bid price of the item involved. No extra excavations shall be done without the written approval of the Engineer. In no case shall footings rest on fill.
- 2.3.3 Where concrete for walls, or footings is to be placed without forms, trench sides shall be sharp and true.
- 2.3.5 If soil condition necessitates installation of side forms, all structural excavations shall be to a sufficient distance from walls and footings to allow for the proper erection and dismantling of forms, installation of service lines and for inspection.
- 2.3.6 In case suitable materials are encountered at elevations other than those specified or shown in the drawings, the **Engineer at this discretion may direct in writing the variation of excavation** depth above or below those indicated in the drawings. **All excavation shall be inspected and approved by the Engineer or his representative before pouring any concrete**, laying underground services or placing backfill materials.
- 2.3.7 The Contractor shall control the grading in the vicinity of all excavated areas to prevent surface drainage running into excavations. Adequate provisions shall be made for the prompt removal of water accumulated from any source whatsoever in the excavated portions of the site by the installation of adequate pumping facilitates during the entire course of the Contract. Water which accumulates in excavated areas shall be removed before filling or pouring concrete.

2.3.8 Shoring and sheet piling, if required during excavation to protect banks, adjacent

paving, structures and utilities shall be installed by the Contractor. Sketches of proposed shoring shall be submitted for approval to the Project Manager and no shoring work shall proceed until the Project Manager approved such sketches. Approval by the Project Manager, however, shall not be construed as to relieve the Contractor of the responsibility for the adequacy of the shoring and sheeting. It shall be the responsibility of the Contractor to see to it that the adjacent properties are not in any way damaged by these excavations. It shall be the Contractor's responsibility to repair any damage and/or compensate the owner of the adjacent properties should they suffer any damage whatsoever.

2.3.9 Excavations for underground tanks, manholes and other similar structures shall be sufficient to leave at least 12 inches clearance between their outer surfaces and the embankment or shoring which may be used. Whenever unsuitable soil that is incapable of supporting the structure is encountered at the bottom of the excavation, such soil shall be removed to the depth necessary to obtain proper bearing. Unauthorized over excavation in unsuitable soil shall be filled with select backfill materials of the contractor.

2.4 BACKFILLING AND GRADING

2.4.1 After the forms have been removed from the footings, piers, foundation walls, etc., and when the concrete is hard enough to resist pressure from resulting fill, and trash, wood chips and other debris shall be removed from areas to be backfilled.

2.4.2 No backfill shall be placed until proper inspection and authorization are obtained.

Trenches shall not be backfilled until lines have been tested and approved by the Engineer.

2.4.3 Backfill materials shall consist of approved materials and shall be free from brush, roots, adobe and other undesirable materials which would be detrimental to compaction requirements. The material from excavation may be used for backfilling around them provided they are of approved granular materials.

2.4.4 **Before placing fill materials**, the surface upon which it will be placed shall be cleared of all bushes, roots, vegetable matters and debris, scarified the thoroughly wetted to insure good bonding between the ground and the fill materials. **Fill in contact with the new concrete work shall not be placed until at least 48 hours after removal of forms.**

2.4.5 The filling shall be placed in horizontal layers not exceeding 150 mm in thickness, each layer being thoroughly compacted and rammed by wetting, tamping or rolling until at least 90% of maximum density at optimum moisture as the determined by modified AASTHO method is reached.

2.4.6 The Contractor shall fill and grade the whole area around the structure to the indicated subgrade elevation as directed by the Engineer. The contractor shall verify the finish grade elevations of the proposed pavements around the structure. Prior to grading operations, the area shall be cleared of all heavy growth of vegetation stumps, roots, cables, wires, rocks and other debris. The finished subgrade shall be reasonably smooth and compacted and ready to receive the base course for the proposed pavements.

2.5 Demolition and Disposition. All obstruction shall be demolished as specified by the Engineer. All existing structures which need to be demolished and visible through ocular inspection **shall be conducted at the expense of the Contractor following sage procedures approved by the Engineer.** **Underground structures** which are

predetermined through available plans or record shall likewise be conducted at the **expense of the Contractor.**

- 2.6 Disposal of Excess Materials. **Any excess material** resulting from the finish grading and demolition operations, not required or unsuitable for fill or backfill shall be **disposed by the Contractor at his expense.**

DIVISION 3: CONCRETE

3.1 Scope of Work

The work includes construction of concrete structures complete in accordance with the standard specifications and conformity with the lines, grades, thickness and typical cross-section shown on the plan.

3.2 Reference Standards

The latest edition of the following standards shall be from apart of this specification:

ACI 211-01	American Concrete Institute Standard Practice for Selecting Proportions for Normal and Heavyweight Concrete
301	Concrete, Structural for Building
309R	Standard Practice for Consolidation of Concrete
318	Building Code Requirements for Reinforced Concrete
AASHTO	American Association of State Highway and Transport Officials
M173	Concrete Joint Sealer, Hot-Poured Elastic Type Performed Expansion Joint Filler Concrete
ASTM	American Society for Testing Materials
C33	Concrete Aggregates
C31	Standard Practice for Making, Curing Concrete Test Specimen in the Field
C39	Comprehensive Strength of Cylindrical Concrete Specimen
C42	Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
C94	Standard Specification for Ready-Mixed Concrete
C143	Standard Test Method for Slump of Portland Cement Concrete
C150	Portland Cement, Specification for
C309	Liquid Membrane-Forming Compounds for Curing Concrete

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3.3 Material Requirement

3.3.1 General

Concrete shall be composed of Portland cement; fine and coarse aggregates, water and admixture as specified all thoroughly mixed and brought to proper consistency, uniformity and temperature for final placement.

3.3.2 Cement

Concrete shall be Portland cement or a brand approved by the Project Manager and conforming to ASTM Specification C150, Type I of Type II.

3.3.3 Water

Water shall be clean and free from injurious amounts of oils, acids, alkalis, salts, organic materials, or other substances that may be deleterious to concrete or steel.

3.3.4 Admixtures

Admixtures shall be subject to prior approval by the Project Manager. The admixtures shall be capable of maintaining essentially the same composition and performance throughout the work.

3.3.5 Fine Aggregates

Fine aggregates shall consist of natural sand, manufactured sand, or a combination thereof. If the fine aggregate shall be a combination of separately processed sizes, or if batching shall result in a combination of natural and manufactured sand, the different components shall be batched separately. Fine aggregates shall consist of hard, tough, durable, uncoated particles. The specified percentages of fines in the sand may be obtained either by the processing of natural sand or by the production of suitably graded manufactured sand. The shape of particles shall be generally rounded or cubical and reasonably free from flat or elongated pieces. The use of beach sand shall be prohibited. The fine aggregate shall conform to the following specific requirements:

<u>Std</u>	<u>Sieve Designation</u> <u>U.S Std., Square Mesh</u>	<u>Cumulative Percentage by</u> <u>Weight Passing</u>
9.5 mm	3/8	100
4.75 mm	No.4	95-100
2.36 mm	No.8	80-100
1.18 mm	No.16	45-80
300 micron	No. 50	10-30
150 micron	No.100	2-10

In addition to the grading limits shown above, the fine aggregates, as delivered to the mixer, shall have a fineness modulus not less than 2.3 more than 3.0 and during normal operations, the grading of the fine aggregate shall be controlled so that the fineness modulus of at least nine (9) out of ten (10) test samples of fine aggregate as delivered to the mixer shall not vary by more than 0.20 from the average fineness modulus can be determined by dividing 100 the sum of the cumulative percentages retained on U.S. Standard Sieves Nos. 4, 8, 16, 50 and 100.

3.3.6 Coarse Aggregates

Coarse aggregate shall consist of washed gravel, crushed stone or rock, or a combination thereof conforming to ASTM C33. The coarse aggregate, as delivered to the batching plant, shall have uniform and stable moisture content. The approval of deposits shall not be construed as constituting the approval of all materials taken from the deposits, and the Contractor shall be held responsible for the specified quality of all such materials used in the work. Coarse aggregate shall consist of hard, tough, durable, clean and uncoated particles. All foreign materials and dust shall be removed and shall be generally rounded or cubical, and the coarse aggregate shall be reasonably free from flat and elongated particles. A thin, flat and elongated particle can be as defined as a particle having a maximum dimension greater than five times the minimum dimension. The

coarse aggregate shall be graded from fine to coarse. It shall be separated into size groups.

The grading of the aggregate within the separated size groups as delivered to the mixer shall be as follows:

Sieve Sizes		Percent by Weight		Passing	Individual 1-1/2
<u>Std (MM)</u>	<u>U.S Std., Sq. Mesh</u>	<u>¾ Size</u>			<u>Size</u>
50	2"			100	
37.5	1-1/2"			90-100	
25	1"	100		20-55	
19	¾"	90-100		0-15	
9.5	3/8"	20-55		0-5	
4.75	No. 4	0-10			

Use 19-mm (3/4") coarse aggregate for slab on grade, columns, beams, suspended slabs and tie beams.

Use 38 mm (1 1/2") coarse for footings

3.3.7 Reinforcing Steel

Reinforcing steel shall be locally manufactured, deformed billet steel bars conforming to Philippine Standard as follows:

10 MM Ø and smaller bars (U.N.O.)	Grade 33 (230 MPa)
12 MM Ø	Grade 40 (275 MPa)
16 MM Ø and larger bars	Grade 60 (414 MPa)

3.3.8 Forms

Concrete form shall be wood, plywood, steel or other suitable materials. Form surfaces requiring standard or special finish shall be plywood or a non-absorptive hand pressed fiberboard or other suitable materials. Plywood shall not be less than 12 mm thick and shall be free from irregularities, dents and sags. Forms shall be coated with non-staining form coating compound such as form oil of the approved make.

3.3.9 Storage of Materials

(1) Cement

Cement in bags shall be stored in a suitable weatherproof structure as airtight as practicable. Floors shall be elevated above the ground, sufficient to prevent the absorption of moisture. Bags shall be stocked close together to reduce circulation of air but shall not be stocked against outside walls. The manner of storage shall permit easy access for inspection and identification of each shipment. Cement that has been stored for so long that there may be doubt of its quality shall be tested by standard mortar tests to determine its suitability for use, and shall not be used without approval of the Project Manager.

(2) Aggregates

Aggregate shall be stored in such a manner as to avoid the inclusion of foreign materials. Aggregates of different sizes shall be stored in separate piles. Stockpiles of coarse aggregate shall be built in horizontal layers not exceeding 1200 mm in depth to avoid segregation. Should the coarse aggregate become segregated, it shall be remixed to conform to the grading requirements here on before. Sufficient stockpiles shall be maintained at all times to permit continuous placement of concrete at the rate specified.

(3) **Reinforcing Steel**

Reinforcing steel shall be stored in a manner to avoid excessive rusting or being coated with grease, oil, dirt and other objectionable materials.

3.4 **Construction Requirements**

3.4.1 **Concrete Proportion**

The proportion of all materials in concrete shall be subject to the approval of the Project Manager. The Contractor shall employ at his own expense an approved testing laboratory, which shall design the mix proportions in accordance with ACI 211.01. Strength requirements shall be 27.6 Mpa (4000 psi) for footing, columns, beams, girders, suspended slabs and stairs. Slab on grade and other non-structural members shall be 17 Mpa (2500 psi). The adequacy of this test shall be verified by a test on a minimum of 6 cylinders; 3 tested at 7 days, 3 at 28 days, in accordance with ASTM C39.

If, at any time during construction, the concrete resulting from the approved mix design proves to be unsatisfactory for any reason such as too much water, lack of sufficient plasticity to prevent segregation, honeycomb, etc., or insufficient strength, the Contractor shall notify the testing, laboratory and the Project Manager. The laboratory shall modify the design, subject to the approval of the Project Manager until satisfactory concrete is obtained.

3.4.2 **Concrete Samples and Testing**

Sampling and testing of concrete shall be done by and at the expense of the Contractor. Throughout the period that the concrete is being poured into cylinder shall be taken from fresh concrete from the forms.

The rests shall be made for each 10 cu. m. of concrete or fraction thereof for each portion of structure as may required by the Project Manager as follows:

1. **Compression Tests:**

At least two (2) sets of samples consisting of three (3) concrete cylinder specimens per set shall be made. Fresh concrete shall be placed inside standard 150 x 300 mm cylindrical mould in three (3) separate equal layers and rodded separately with 25 strokes with a 16 mm diameter tamping rod. Surface shall be leveled with trowel and samples are to be labeled to identify the class, strength of concrete, date taken and part of structure samples are taken. The samples shall be cured in accordance with ASTM C31.

One set of cylinders shall be tested at the age of seven (7) days, and one set at the age of twenty-eight (28) days, in accordance with ASTM C39. Additional

cylinder samples may be molded in reserve for further tests, if the results of the twenty-eight (28)-day-test do not meet the requirements.

2. Slump Tests

Slump tests shall be performed to determine the consistency or workable fluidity of freshly mixed concrete in the field. At least two slump tests shall be made and the sample of concrete from which the test specimens are made shall be representative of the entire batch and shall conform to the procedures are specified in ASTM C143.

Freshly mixed concrete shall be placed in the slump cone 100 x 200 mm x 300 mm in three (3) equal layers. Each layer shall be rodded with 25 strokes of the 16-mm diameter tamping rod with the tamping end rounded to a hemispherical tip of the same diameter. The mould shall be leveled and lifted at once and then measure the slump action immediately by getting the difference in height between the height of the mould and the top of the slumped concrete.

The slump tests shall be performed to determine the consistency or workable fluidity of freshly mixed concrete in the files. At least two slump tests shall be made and the sample of concrete from which test specimens are made shall be representative of the entire batch and shall conform to the procedures as specified in ASTM C143.

The slump for vibrated concrete shall be 50 mm minimum and 100 mm maximum, provided that the required strength of concrete is obtained.

3. Test Reports

The testing laboratory shall submit four (4) copies of its cylinder which are to include as far as applicable, the following items: Location of pour in the structure, concrete design mix number, concrete design strength, type and manufacturer of cement, amount of any admixture used, slump tests, date of sampling, cylinder application number, days cured in the field, days cured in the laboratory, age and time of testing, crushing stress, type of failure, who made the samples, who shipped the samples to the laboratory and whether concrete strength meets the specifications.

4. Additional Tests

If, in the opinion of the Project Manager, based on the cylinder reports, concrete with strengths below specification requirements has been placed, the Project Manager, at the expense of the Contractor shall make additional tests. Additional tests may be compression test on cored cylinder, ASRM C42, and/or load tests as outlined in ACT 318 Sec. 202.

3.4.3 Mixing Concrete

Mixing shall be thoroughly done in a mixer of an approved size and type to insure a uniform distribution of the materials throughout the mass:

1. Site-Mixed Concrete

All structural concrete shall be machine-mixed for at least 1 ½ minutes after all materials including water are in the mixing drum. The time elapsed between the introduction of the mixing of water to the cement and aggregate and placing of

the concrete in final position shall not exceed 45 minutes. Placing of the material in the mixer shall be done in such a way that the first batch of concrete materials in the mixer shall contain sufficient excess cement, sand and water to coat the inside of the drum without reducing the cement content of the mix to be discharged. The tempering of concrete, placing additional cement, aggregate or water during mixing period shall not be permitted.

No hand mixing shall be allowed, except in case of emergency of breakdown during pouring operations, subject to the approval of the Project Manager.

2. Ready-Mixed Concrete

Ready-mixed concrete, when shall be batched, mixed and delivered from a plant approved by the Project Manager, and shall be in strict compliance with the requirements set forth in ASTM C94.

The rate of delivery of the mixed concrete shall be such that the interval between placing of successive batches shall not exceed thirty (30) minutes. The elapsed

time between the introduction of mixing water to the cement and aggregate, and completion of discharge shall not exceed one (1) hour, or not more than 1 ½ hours if retarder is used. It should be kept constantly agitated during the transit period. Delivery tickets shall contain data on the weight of sand, gravel and amount of cement and water added. The Contractor shall keep legible copies available for examination of the Project Manager.

Tempering of concrete shall not be permitted. The Contractor shall mix only quantities required for immediate use and mixture, which has developed setting, shall not be used. Concrete, which has partially hardened, shall not be tempered.

3.4.4 Concrete Placing

Concrete shall be placed only after all formworks, materials to be embedded, and preparation of surface involved in the placing have been inspected and approved by the Project Manager. The Contractor shall provide equipment and shall employ methods that will minimize separation of aggregates from the concrete mix.

Water shall be removed from excavation before concrete is deposited. Flow of water shall be diverted through proper side drains to a pump, or removed by other approved methods to avoid washing over freshly deposited concrete. Hardened concrete, debris and foreign materials shall be removed from the interior of forms and from inner surfaces of mixing and conveying equipment. Reinforcements shall be secured in position, inspected and approved before pouring concrete. Runways shall not be provided for wheeled concrete-handling equipment's, such equipments shall not be wheeled over reinforcement nor shall runways be supported by reinforcements.

Concrete shall be handled from the mixer to the place of final deposits as rapidly as practicable by methods, which shall prevent segregation or loss of the

ingredients. It shall be deposited in the forms in approximately layers and as nearly as practicable in its final position to avoid re-handling.

Conveying or handling of concrete by the use of inclined chutes or pipes of more than three (3) meters shall not be permitted. Dumping of concrete into buggies, buckets or wheelbarrows with a free fall of more than one (1) meter shall not be permitted. When placing operations would involve dropping of concrete more than 1 ½ meters, it shall be deposited through a sheet metal or other approved conveyor. As for practicality, the conveyor shall be kept full of concrete during placing and their lower ends shall be kept buried in the newly placed concrete. After the initial set of concrete, the forms shall not be jarred and no strain shall be placed on the ends of the reinforcing bar, which are being projected.

Concrete in columns shall be placed in one continuous operation. Concrete in girders, beams and slabs in superstructures shall be poured in a monolithic and continuous manner. No construction joint shall be allowed on any part of the structure without the approval of the Project Manager.

Consolidate all concrete in accordance with provisions of ACI 309R. Consolidate each layer of concrete greater than 4 inches in depth with high frequency, interval, mechanical equipment supplemented by hand spading and tamping. Consolidate concrete slab 4 inches or less in depth by wood tampers, spading and settling with a heave leveling straight edge. Operate vibrators with vibratory element submerged in the concrete, with a minimum frequency of not less than 6000 impulses per minute when submerged. Insert and withdraw vibrators approximately 18 inches apart. Penetrate the previously place lift with the vibrator when more than one lift is required. Place concrete in 180-inch maximum vertical lifts. Limit duration of vibration to time necessary to produce satisfactory consolidation without causing segregation of aggregates. Provide adequate number of units and power source at all times. Maintain spare units on hand to ensure adequacy. If in the opinion of the Project Manager the equipment being used is not adequate to accomplish proper consolidation, the Project Manager may order delay in further placement of concrete until such equipment is available for use at the location of placement of concrete.

3.4.5 Protection and Curing

1. General

Concrete surfaces exposed to conditions causing premature drying shall be protected as soon as possible with canvas, straw, burlap and or other satisfactory material and kept moist; or if the surfaces are not covered they shall be kept moist by flushing or sprinkling, as directed by the Project Manager. All concrete shall be moist cured for a period of not less than seven (7) consecutive days after placing by an approved method or combination of methods applicable to local conditions.

2. Moist Cutting

The surface of the concrete shall be kept continuously wet watered for a period of seven (7) days, by spraying or covering with burlap or other approved material thoroughly saturated with water and keeping the covering wet by spraying or intermittent hosing. Water for curing shall be generally lean and free from any element, which might cause objectionable staining or discoloration of the concrete.

3.4.6 Repairs to the Concrete

All imperfections on concrete surfaces are corrected to produce concrete surfaces that conform to the requirements of this section. Unless otherwise approved by the Project Manager, patching with the cement mortar shall repair imperfections on formed surfaces. Cement mortar for patching shall be the same composition as used in the concrete, except for exposed surfaces; part of the cement shall be white cement to provide a finish color matching the surrounding concrete. Honeycomb or otherwise defective areas shall be cut out from solid concrete to a depth of not less than 25 mm. the edges of the cut shall be perpendicular to the surface of the concrete. The area to be patched, at least 15 mm adjacent thereto shall be saturated with water before placing the mortar. The mortar shall be mixed approximately one (1) hour before placing and shall be remixed occasionally during this period with trowel without adding water. A grout of cement and water, mixed to a consistency of paint, shall then be brushed onto the surface to which the mortar is to be bonded. The mortar shall be compacted into place and screened slightly higher than the surrounding surface. Patches on exposed surfaces shall utilize plywood forms, after the removal of forms, shall not be plastered, unless other wise directed by the Project Manager. All joint marks on the formwork shall be reworked to a smooth surface to match adjacent areas and to present a new appearance.

3.4.7 Forms

(1) General

Forms shall be used whenever necessary to confine the concrete and shape it to the required lines and dimensions, or to protect the concrete from contamination. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss of mortar from the concrete. Forms for exposed surface shall be lined with form grade plywood. Bolts and rods used for interval ties shall be so arranged that when the forms are removed, they shall not be less than two (2) centimeters from the formed surface.

Removal of forms or shoring is subject to approval by the engineer, and under no circumstances shall bottom form and shoring be removed until after the members have acquired sufficient strength to support their weight and the load thereon. Forms shall remain in place for a minimum time as follows:

Foundations	1 day
Columns and walls	7 days
Beams and Girders	14 days
Slabs	14 days

Reshore immediately after stripping beams and girders that support subsequent formwork.

(2) Cleaning and Oiling Forms

Before placing concrete, the contact surface of the forms shall be cleaned of incrustations of mortar, grout or other foreign material. Forms shall be coated with standard form oil that can effectively prevent sticking and will not stain the concrete surfaces.

(3) Removal of Forms

Forms shall be removed in a manner, which shall prevent damage to concrete structures. Forms shall not be removed without prior approval of the Project Manager. Any repairs of the surface imperfections shall be performed at once and curing shall be started as soon as the surface is sufficiently hard to permit it without further damage. The minimum time period for removal of forms shall govern where it exceeds the minimum specified curing period. Where the formwork for one element supports the formwork of another element, the greater time period shall apply to both elements. Forms shall not be removed before the expiration of the minimum time specified below:

<u>Element</u>	<u>Time Period</u>	
Walls columns, sides of beams and girders, and slabs on grade		1
Pan joist forms (side only): 76 cm (30 inches) Wide or less over 76 cm (30 inches) wide		3
Where design live:	less than the dead load	greater than dead load
Joist, beam or girder, soffits: (Clear span between structural support):		
Under 3.00 m (10 ft.)	7	4
3.00 m (10 ft) to 6.00 m (20 ft.)	14	7
Over 6.00 m (20 ft)	21	14
One-way floor slabs: (Clear span between structural supports)		
Under 3.00 m (10 ft)	4	4
3.00 m (10 ft) to 6.00m (20 ft)	7	4
Over 6.00m (20 ft)	10	7

Sufficient shoring members to support dead loads including construction loads on beams and slabs shall be provided for a period of eight (8) days in addition to the seven (7) days specified thereto. The time for removal of forms for structures not included thereto shall be as directed by the Project Manager. Concrete work shall be protected from damage during construction.

3.4.8 Reinforcing Steel

(1) General

Steel reinforcement shall be provided together with all the necessary wire tie chairs, spacers, support and other necessary devices.

(2) Cutting and Bending

Reinforcing steel shall be accurately cut and bent in accordance with the approved detailed reinforcement drawings. Reinforcing steel shall not be straightened or re-bend in a manner that will injure the material. Bars with kink or with bends not shown on the approved detailed reinforcing drawings or with

cracks or splits of the bends shall not be used. All the bars shall be bent cold. If Contractor elects to have reinforcing steel cut and bent off the site, he shall provide, maintain and operate a small cutting and bending shop on the site and maintain and representative stock of steel. This provision is to take care of minor revisions and additions in an expeditious manner.

The Project Manager may require the contractor to prepare and submit bar cutting schedule prior to fabrication of reinforcing steel bars.

(3) Placing Reinforcement

Reinforcing steel shall be accurately placed in accordance with approved detailed reinforcement drawings and shall be adequately secured against displacement by using specified tie wires or approved clips at all intersections. After it has been installed, reinforcing steel shall be inspected by the Project Manager for compliance with requirements as to size, shape, length, splicing, position and number. Reinforcing steel shall be supported by concrete or metal supports, spacers or metal hangers, except for surfaces exposed to the ground or to the weather, where supports shall be concrete. Wooden support spreaders shall not be used. At surfaces where attractive appearance is required, the supports shall be of the type, which shall not cause subsequent staining or marring of the exposed surface.

3.4.9 Joints in Concrete

(1) Construction Joints

Construction joints shall be provided where indicated in the drawing or as directed by the Project Manager. Joints not indicated on the drawings shall be constructed and located as not to impair the strength of structures. When a construction joint is to be made, the surface of the hardened concrete shall be thoroughly cleaned and all laitance removed. In addition, the joint shall be thoroughly wetted and sloshed with a coat of neat cement grout immediately, prior to placing of new concrete.

(2) Expansion and Contraction Joints

Expansion and contraction joints shall be provided where indicated and shall be in accordance with details.

(3) Prefomed Strips

Prefomed strips shall be placed before the adjoining concrete is poured. The joint scalier shall be applied after concrete on both sides of the joint have been poured and after the joint lines have been trued.

3.5 **Methods of Measurement and Basis of Payment**

The Project Manager shall be in accordance with the dimension in the plan or as otherwise direct the measurement of completed work. The quantities to be paid for under this section shall be measured as follows:

- a. The volume to be paid for under this item shall be the number of cubic meters of concrete placed and accepted. Payment for concrete shall be constructed to include the

cost of forms, false works, curing, fasteners and accessories necessary to complete this item of work.

b. The quantities for reinforcing steel to be paid for shall be the final quantity placed and accepted in the completed structure. No measurement for payment shall be made for splices added by the Contractor for his convenience. Payment for the accepted quantities for reinforcing steel shall be deemed to include the cost tie wires, separators, wire, supports, hangers, chairs and other materials necessary to complete the work.

The quantities measured as provided above shall be paid for at the contract price for each of the pay item, which price and payment shall be full compensation for furnishing and placing all materials, labor, equipment, tools and incidentals necessary to complete the work.

DIVISION 04: MASONRY

SECTION 4A MASONRY WORK AND OTHER CEMENT WORK

4A.1 Scope

4A.1.1 The work shall include supply of all labor, materials, equipment and other facilities necessary for the satisfactory performance and completion of all masonry and cement works.

4A.1.2 Refer to drawings and details for sizes, location and extent of work required.

4A.2 Delivery, Storage, and Handling. All materials shall be so delivered, stored and handled so as to prevent the inclusion of foreign materials and damage of materials by water exposure and breakage. In stock piling concrete hollow blocks, measures shall be adopted to prevent the hollow blocks from resting directly on soil surface. These measures may include provision of pallets or bed of sand about 2" thick. Packaged materials shall be delivered and stored in original packages until ready for use. Packages or materials showing evidence of water exposure or other form of damage shall be rejected. All materials shall be of the respective qualities specified herein and packaged materials shall carry the manufacturer's labels thereon to permit identification.

4A.3 Materials

4A.3.1 Specifications for the following materials are stated under section REINFORCED CONCRETE, and shall apply to this Masonry and Cement Work section as if written out in full.

4A.3.2 Aggregate of different kinds and sizes shall be placed in different stockpiles and positive means taken to prevent inclusion of foreign matter.

4A.3.3 All cementitious materials must be kept dry until ready to be used; must be kept off the ground under cover, and away from sweating walls and other damp surfaces.

4A.3.4 Cementitious materials that have hardened or partially set prior to actual use shall be removed from the site.

4A.3.5 Unit Masonry - Concrete hollow block units shall be steam cured-weighbatched units made by any reputable manufacturer acceptable to the Architect. Concrete hollow block units shall be true to size, without cracks, chips, spawns, splits or other defects, which impair their strength or durability. They shall have three holes.

Compressive Strength Specifications	
Non-load Bearing	350 psi (individual)
Load Bearing	1000 psi (individual)

4A.3.6 Steel Reinforcement. The minimum steel reinforcement for concrete hollow block walls shall conform to the schedule as given hereunder or as indicated in the construction notes.

Minimum	Vert. Reinf.	Horiz. Reinf.
4" CHB	10mm @ 0.4m	10mm @ 3 layers
6" CHB	12mm @ 0.4m	10mm @ 2 layers

All cores where vertical or horizontal reinforcements are placed shall be filled with mortar and shall thoroughly be worked inside the core to fill up to voids.

4A.3.7 Tie Wires: Ga. #16 G.I.

- 4A.3.8 Concrete Lintels. Lintels for openings shall be the height and thickness of existing hollow block or as detailed in the drawings. The minimum reinforcement shall be that shown in the drawings.
- 4A.3.9 Mortars. Mortar mix shall be 1 part Portland Cement and 3 parts white sand. All materials for mortar shall be measured by volume. Sand and cement shall be mixed dry and then water added to bring to proper consistency for use. No mortar that has stood for more than 3/4 of an hour shall be used. Retempering of mortar shall not be permitted. Discard mortar which has begun to stiffen.
- 4A.4 Installation/Erection of Masonry Units
- 4A.4.1 Lay all units plumb, true to line, level and accurately spaced.
- 4A.4.2 Set in place anchors, wall plugs and accessories to masonry as erection progresses.
- 4A.4.3 Bed solidly each course on Portland cement mortar with vertical joints breaking half way over course below.
- 4A.4.4 Remove all loose mortar and thoroughly wet exposed joints not less than one hour before laying new work.
- 4A.5 Plastering
- 4A.5.1 All works shall be plumb true and accurately done. Use screeds at convenient intervals to assure even and flat finish.
- 4A.5.2 Scratch coat shall be applied evenly floated to true plumb and correct planes.
- 4A.5.3 Not less than 24 hours after the application of scratch coat, the second of finish coat consisting of 1 part Portland cement and 2 parts sand shall be floated, redded and finished to a combined finish total of approximately 3/4" for both 2 coats.
- 4A.5.4 All exterior plastering works shall be done with a waterproofing ingredient, "SAHARA" or equal mixed with scratch and finish coats in strict accord with the directions of the manufacturer of the waterproofing compound.
- 4A.5.5 Each preceding coat shall be wetted before applying the next coat.
- 4A.5.6 Plaster works for shall not be started until all trades have completed their work. If this is not possible, the plasterer shall repair the broken and defective plaster ad shall be done so that the finished surface presents an unbroken appearance.

DIVISION 5: METAL

5.1 Scope of Work

The work includes the furnishing, fabrication, erection or installation of structural steel roof framing, Stainless Handrails and miscellaneous metal work in accordance with this specification and as shown in the drawings.

5.2 Applicable Specifications & Standard

The latest edition of the following specifications and standards referred to hereinafter by basic designation only, shall form part of the specification:

ASTM	American Society for Testing and Materials
A36/A36M	Specification for Structural Steel
A53	Steel Pipe Zinc Coated Welded and Seamless Black and Hot-Dip
A307	Bolts and Studs, 60, 000 psi Tensile Strength
A325	Standard Specification, high Strength Bolts for Joints
A570	Hot-rolled Carbon Steel Sheet and Strip, Structural Quality
A611	Steel, Cold-Rolled Steel, Carbon, Structural Quality
AWS	American Welding Society
D1.1	Structural Welding Code, Steel
AISC	American Institute of Steel Construction, Specification for the Design, Fabrication, Erection of Structural Steel for Buildings.
AISI	American Iron Steel Institute, Specification for the Design of Light Gage Cold Formed Steel Structural Members

5.3 Material Requirement

5.3.1 Structural Steel Shapes, Plates and Bars

Unless otherwise shown or specified on the drawing, structural steel shapes plates and bars shall conform to ASTM specification A36/A6M

5.3.2 Hot-Formed Steel Sheet & Strip

Unless otherwise shown or specified on the drawings, hot-formed steel and strip shall conform to ASTM A570.

5.3.3 Bolts, Nuts & Washer

It shall conform to specification ASTM A370, with a minimum yield point of 33,000 psi, unless otherwise shown in the drawings. Heavy hexagonal structural bolts, heavy hexagonal nuts and hardened washers, shall be quenched and tarpapered medium-carbon steel bolts, nuts and washers complying with ASTM A325.

5.3.4 Screw and Expansion Bolts

Screw and Expansion bolts be of standard commercial grade, and of the sizes and types indicated as approved by the Owner's Representative.

5.3.5 Electrodes

Electrodes for arc welding shall be E60, or E70, AWS D1.1

5.3.6 Galvanizing

Unless otherwise specified, galvanizing shall be of standard quality, hot-dipped process of 1.25 ounces per square foot of coating. Galvanized surfaces that are damaged prior to final acceptance shall be repaired using an approved repair compound to the satisfaction of the Project Manager.

5.3.7 Railings/Handrails

50mm dia stainless steel pipe shall be used for hand rails and vertical railings, properly installed as indicated in the plans. Joints and surfaces that are damaged prior to final acceptance shall be repaired using an approved repair compound to the satisfaction of the Project Manager.

5.3.8 Miscellaneous Metals

Miscellaneous metals including fastenings, anchorages and incidentals not specifically mentioned herein or in other section of this specification but are required to complete the work, for which there are no detailed drawings, shall be provided and installed in accordance with standard practice of the trades as approved by the Project Manager.

5.3.9 Delivery, Storage and Handling

Fabricated materials delivered to job site shall be stored in clean and protected dry areas in manufacturer's protective package. Structural steel materials to be stored shall be placed on skids above the ground. It shall be kept clean and properly drained. Skids placed near enough together to prevent injury from deflection shall support long members, such as purlins and chords. The Contractor shall check the quantity and quality of materials turned over to him against the delivery list and report promptly in writing any shortage or damage discovered.

5.4 Construction Requirements

5.4.1 General

Fabrication and erection of structural steel shall be in accordance with AISC specification for the design, except as specified herein. The Contractor shall submit to the Project Manager for approval of shop drawings showing the proposed method of fabrication and installation of all metal work. No work shall be started until the shop drawings have been approved. And all work shall conform to the approved shop drawings.

5.4.2 Fabrication of Steel Structure

The work shall be well formed at the shape and size shown and assembled as detailed. Structural members shall be fabricated and assembled in the shop to the greatest extent as possible. Shearing and punching shall be produced in clean, true lines and surfaces with burrs removed. Nuts shall be drawn up tight. Joints, which are to be exposed to the weather, shall be water tight. Hole shall be cut, drilled or punched at right angles to the surface of the metal. Holes in base or bearing plates shall be drilled.

1) Welding

Structural steel shall be welded in accordance with the standard code of Arc and Gas Welding in Building Construction of the American Welding Society. Qualified welders shall perform all welding work only.

2) Shop Painting

Unless otherwise specified or indicated in the drawings, all structural steel work (except galvanized surfaced and surfaces that will be painted with epoxy) shall be given a shop coat of red lead or zinc chromate primer.

5.4.3 Erection

The steel structure shall be erected true to line and grades. Bracings and supports shall be introduced whenever necessary to take care of all the loads to which the structure may be subjected. Such bracings shall be left in place as long as may be required for safety. As erection progress, the work shall be securely bolted to take care of all the dead loads, wind and erection stresses. No reaming of undersize bolt holes shall be permitted, and erection bolts shall not be used for lining up members.

(1) Rift Pins

Drift pins may be used only to bring together several parts; they shall not be used in such a manner as to distort or damage the metal.

(2) Gas Cutting

The use of gas cutting torch in the fields for correcting fabrication errors shall not be permitted on any major member in the structural framing. Its use may be permitted only when the member is not under stress, and subject to the approval of the Project Manager.

(3) Base Plates and Bearing Plates

Base plates and large bearing plates shall be supported in steel wedges or shims until the supported members have been plumbed, following which the entire bearing are shall be grouted with no-shrink cement grout.

(4) Grouting Mortar for Setting Base Plates

Concrete grout shall be a non-shrinking type grouting mortar. The mortar subject to the approval by the Project Manager can either be a mixture of Portland cement, well graded fine aggregate, aluminum powder; and water or an approved commercial grouting mortar containing non-metallic chemical oxidizing agent. If adopted, the approved product shall be delivered to the site of the work in original sealed container bearing the trade name of the manufacturer. Surfaces to receive the mortar shall be clean and shall be moistened thoroughly before placing the mortar. Exposed surfaces of mortar shall be water cured with burlap for at least seven (7) days.

(5) Setting Up

Steel shall be erected plumb, level and properly guyed. In setting or erecting structural steel, the individual piece shall be considered plumb or level where the error does not exceed 1 to 500.

(6) Inspection

The Contractor shall give the Project Manager at least fifteen (15) days notice prior to the start of work at the mill 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 materials shall be rolled or fabricated until the said inspection has been provided.

The Contractor shall furnish the Project Manager with copies of the certificate mill reports of the structural steel structure preferably before but not later than the delivery of steel structure to the job site.

The Contractor shall furnish all facilities for inspection and the Project Manager shall be given free access to the mill or shop and premises at all times. The Contractor shall furnish without charge all labor; machinery, materials and tools necessary to prepare test specimens.

Inspection at the mill or shop is intended as a means of facilitating work and avoiding errors. It is expressly understood that it will not relieve the Contractor from any responsibility for imperfect materials or workmanship and the necessity for replacing the same. The acceptance of any material or furnished member at the mill or shop by the Project Manager shall preclude their subsequent rejections if found defective before final acceptance of the work. Inspection of welding works 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.

5.5 Method of Measurement and Basis of Payment

1. The quantity of structural steel roof framing to be paid for shall be the number of kilos completed in place and accepted. Payment for the accepted quantities shall be deemed to include the cost of steel plates, anchor bolts buckles, sag rods, cross bracing, purlins mounting accessories and other works necessary to complete this work item.

2. The quantity to be paid for stair nosing and railing shall be the number of linear meter placed and accepted. Payment shall be construed to include the cost of false work, anchors, and other materials used in mounting this item.

The quantity determined as provided above shall be paid for the contract price for each of the pay item listed in the bid schedule, which price and payment shall be full compensation for furnishing and placing all materials, labor, equipment, tools and incidentals necessary to complete the work.

DIVISION 06: WOOD AND PLASTIC

NOT APPLICABLE

DIVISION 07 : THERMAL AND MOSITURE CONTROL

SECTION 7A WATERPROOFING

- 7A.1 General. Furnish material and equipment and perform labor required to complete waterproofing of the following, but not limited to: the roof deck area, cistern tank, and toilet area.
- 7A.2 Materials. **Flexible cementitious waterproofing coating**. Use **two-component, flexible polymer modified cementitious waterproofing coating** that is mixed on site and resurfaced on concrete and other construction materials to be waterproofed, with excellent weathering resistance and crack bridging property.
- 7A.3 Delivery and storage. Deliver waterproofing materials to the site in original sealed containers or packages bearing the manufacturer's name and brand designation, type and class. Store and protect waterproofing materials from damage, weather moisture and extreme temperature.
- 7A.4 Execution
- A. 7A.4.1 Surface preparation. All substrates shall be sound and clean, free from dust, excess mortar, oil or other loose particles. **Cracks or honeycombs shall be repaired using suitable cement mortar**. For over excessively dry substrate, **keep the substrate continuously moist before work begins**. **Remove all excess water or standing water**, allowing the surface to become almost dry to provide an SSD (saturated surface dry) condition before installing the waterproofing coating. **For over excessively dry and porous substrate**, prime the entire surface with the **Manufacturer's recommended primer prior to application** of the waterproofing coating.
- 7A.4.2 All works under this section shall be performed only by a qualified contractor trained and approved by the Manufacturer. Apply all waterproofing strictly in accordance with the Manufacturer's specifications.
- 7A.4.3 **Flood test** all applicable waterproofed areas prior to acceptance of the job. Plug all drains, build temporary dams at openings so that the water will be one inch deep at the high point of waterproofed area. **Maintain the water for at least 24 hours**. Remedy at once any evidence of leakage.
- 7A.4.4 Guarantee for all waterproofing works to be free from defects in materials and workmanship and free from leaks for a period of 5 years from the date of acceptance shall be provided by the Contractor. Any defect shall be repaired at the contractor's expense.
- 7A.4.5 Curing of waterproofing when applicable, shall be done strictly in accordance to the manufacturer's specifications.

DIVISION 8 : DOORS, WINDOWS AND GLASS

SECTION 8A STEEL DOORS AND FRAMES

- 8A.1 Scope. This section shall include steel doors and frames as indicated in the drawings.
- 8A.2 Storage and protection. All primer-painted doors, frames and other steel works delivered to the site shall be stored and handled in a manner as to protect them from damage during the construction period. Installation shall commence only when all flooring finishes have been completed.
- 8A.3 **Metal flush door for exterior doors.**
- 8A.4.1 Type of door. Metal flush door, 45 mm thick, swing type, Ga. 18 door panel, primed and with automotive lacquer spray paint finish, with 300mmx900mm fire-rated vision glass panel.
- 8A.4.2 Frame. Tubular steel section frame.
- 8A.4.3 Jamb. Ga. 16 single rabbet jamb, primed and with automotive lacquer spray paint finish. Provide with weatherstrip and threshold, as per manufacturer's standard details.
- 8A.4.4 Hinge. 4 sets of gravity pivot stainless steel hinge per panel.
- 8A.4.5 Lockset and other accessories. Provide mortise lock & lever type door handle chrome finish grade 2, with door closer and stopper and surface mount type, mill finish aluminum with vinyl insert door sweep.
- 8A.4 **Metal flush door for interior rooms.**
- 8A.4.1 Type of door. Metal flush door, 45 mm thick, swing type, Ga. 18 door panel, primed and with automotive lacquer spray paint finish, with 300mmx900mm fire-rated vision glass panel.
- 8A.4.2 Frame. Tubular steel section frame.
- 8A.4.3 Jamb. Ga. 16 single rabbet jamb, automotive spray painted finish, with weatherstrip as per manufacturer's standard details.
- 8A.4.4 Hinge. 4 sets of stainless steel heavy duty ball bearing hinges per panel.
- 8A.4.5 Lockset and other accessories. Provide mortise lock & lever type door handle chrome finish grade 2, with door closer and stopper and surface mount type, mill finish aluminum with vinyl insert door sweep.
- 8A.5 **Metal flush door for Comfort rooms.**
- 8A.5.1 Type of door. Metal flush door, 45 mm thick, swing type, Ga. 18 door panel, primed and with automotive lacquer spray paint finish, with louver.
- 8A.5.2 Frame. Tubular steel section frame.
- 8A.5.3 Jamb. Ga. 16 single rabbet jamb, automotive spray painted finish, with weatherstrip as per manufacturer's standard details.
- 8A.5.4 Hinge. 4 sets of stainless steel heavy duty ball bearing hinges per panel.
- 8A.5.5 Lockset and other accessories. Provide mortise lock & lever type door handle chrome finish grade 2, with door closer and stopper and surface mount type, mill finish aluminum with vinyl insert door sweep. For toilet doors, provide threshold and ga. 16 metal louvers, spaced at 12mm on center at the base, as per schedule of doors and window drawings.

SECTION 8D BUILDERS' HARDWARE

- 8D.1 General. All items of finish hardware shall be furnished, packaged and labeled in sets as specified. All items of finish hardware of like and purpose shall be of the same manufacture.

8D.2 Materials

8D.2.1 Butt hinges shall be provided 4 pieces per door. Butt hinges shall be heavy duty, loose-pin type, 75mmx75mm and stainless steel finish.

8D.2.2 Locksets shall be grade 2 type.

8D.2.3 Drawers shall be provided with metal drawer slide, heavy duty, plastic roller-type mechanism on both sides for ease of operation, size to fit drawer length.

8D.2.4 Cabinet doors and drawers shall be provided with metal door pulls approximately 10mm in diameter and 100 mm long. Corresponding cabinet and drawer lock shall be provided.

8D.2.5 Keying. All door locks shall be keyed individually and 3 such keys shall be furnished for each lock and submit to the Owner properly identified.

8D.3 Installation of hardware. All hardware shall be installed as per manufacturer's instructions. After installation, protect hardware from paint, stains, blemishes and other damages until acceptance of work. Keys shall be tagged, identified and delivered to the Owner.

DIVISION 9 : FINISHES

SECTION 9A PLASTERING

- 9A.1 General. All masonry units' work or concrete work not specifically specified with a finish, exposed to view, shall be cement plastered. Plastering work shall be coordinated properly. Floors and finished work shall be properly protected with a covering of polyethylene sheets or heavy kraft waterproof paper, with lapped and sealed joints.
- 9A.2 Materials
- 9A.2.1 Portland cement shall conform to PNS 07-1992, type 1.
- 9A.2.2 Sand shall be clean natural sand or manufacture sand passing a 3mm screen and retained an a No. 100 mesh sieve.
- 9A.2.3 Water for mixing shall be potable.
- 9A.3 Proportioning of plaster. Portland cement plaster shall be a two-coat application. Each coat shall be proportioned as follows: 1 part Portland cement, 3 parts sand.
- 9A.4 Application of plaster.
- 9A.4.1 Workmanship. Base coats shall be applied with sufficient pressure and the plaster shall be sufficiently plastic to provide good bonds on masonry or concrete base. Plaster work shall be finished level, plumb, square and true within a tolerance of 3mm in 3M, without eaves, cracks, blisters, pits, grazing, discoloration, projections or other imperfections. Plasterwork shall have no visible junction marks where one day's work adjoins another. Finished work shall be covered and protected in an approved manner to prevent damage.
- 9A.4.2 Portland cement plaster shall be applied in 2 coats double-up method on masonry or concrete to a thickness of not less than 12mm. Base coats shall be applied with sufficient pressure and excessive evaporation during hot or drying weather conditions. Care shall be taken to prevent staining the finished plaster.
- 9A.4.3 Patching and pointing. Upon completion of the building and when directed, all loose, cracked, damaged or defective plastering shall be cut out and repatch in a satisfactory and approved manner. All point-patching of plastered surfaces and plaster work abutting or adjoining any other finish work, shall be done in a neat and workmanlike manner. Plaster droppings or splattering shall be removed from all surfaces. Exposed plastered surfaces shall be left in a clean unblemished condition ready to receive paint or other finish. Protective coverings shall be removed from floors, other surfaces and all rubbish and debris shall be removed from the building.

SECTION 9B FIELD PAINTING

- 9B.1 General. Surfaces to be painted shall be thoroughly cleaned and except for cement-emulsion filler, shall be dry when the paint is applied. Interior areas shall be broom-cleaned and dust-free before and during the application of any painting materials. Surfaces, which will be inaccessible after erection shall be treated and primed prior to erection, using 2 coats of the designated primer. Surfaces of steel to embedded in concrete shall not be painted. Damaged painting shall be retouched before the succeeding coat is applied. Finish surfaces shall be smooth, even and free from defects.
- 9B.2 Submittals
- 9B.2.1 Submit under provisions of Section 1B Control of Materials.

9B.2.2 Product Data. Manufacturer's data sheets on each paint and coating product should include:

- Product characteristics
- Surface preparation instructions and recommendations
- Primer requirements and finish specification
- Storage and handling requirements and recommendations
- Application methods
- Cleanup Information

9B.2.3 Selection Samples. Submit a complete set of color chips that represent the full range of manufacture's color samples available.

9B.2.4 Coating Maintenance Manual. Upon conclusion of the project, the Contractor or paint manufacture/supplier shall furnish a coating maintenance manual. Manual shall include an area summary with finish schedule, area detail designating where each product/color/finish was used, product data pages, material safety data sheets, care and cleaning instructions, touch-up procedures, and color samples of each color and finish used.

9B.3 Mock-up. Provide mock-up for the following:

- **Finished surfaces for verification of products, colors, & sheens.**
- **Finished area designated by Architect.**
- **Provide samples that designate prime & finish coats.**

Do not proceed with remaining work until the Architect approves the mock-up samples.

9B.4 Delivery and storage. Paints and paint materials shall be delivered in sealed containers that plainly show the designate name, specification, number, batch number, color, date of manufacture, manufacturer's directions and name. **Materials shall be used within 12 calendar months of manufacture and delivered to the job site in sufficient quantities**, in advance of the time needed, in order that painting shall not be delayed. **All materials shall be properly stored under lock and key.**

9B.5 Materials.

9B.5.1 Skim-coat finish for all concrete cement plastered walls to correct surface imperfections prior to painting. It is to repair bubbles, honeycomb and concrete defects on waviness and plumbness up to 4 mm thick.

9B.5.2 Latex semi-gloss paints for all exterior and interior concrete cement plastered walls and bare concrete under slab shall be water-based type, or approved equal.

9B.5.3 Flat latex paints for ficem-board ceilings.

9B.5.4 High performance coatings for surfaces indicated in the schedule of finishes.

9B.5.5 Anti-bacterial and odor-absorbent paint for surfaces indicated in the schedule of finishes.

9B.5.5 Automotive paint for wooden cabinets, door jambs, drawers, wood moldings and cornice.

9B.5.6 Alkyd flat enamel paints for interior metal grill works shall be flat wall enamel, oil-based type.

9B.5.7 Primer coating. Apply appropriate primer for all paints according to manufacturer's recommendations.

9B.5.8 Reducers.

For latex paint – clean water

For automotive lacquer paint – lacquer thinner

- 9B.5.9 Putty. Apply appropriate and corresponding putty for all paints and surfaces according to manufacturer's recommendations.
- 9B.5.10 Mildew and fungus treatment shall be appropriate fungicidal wash solution as needed.
- 9B.5.11 Concrete pre-treatment coating shall be appropriate masonry neutralizer.
- 9B.5.12 Sanding sealer for lacquer finish on wood shall be appropriate lacquer sanding sealer.
- 9B.6 Preparation of surfaces. All dirt, rust, scale, splinters, loose particle, disintegrated paint, grease, oil and other deleterious substances shall be removed from all surfaces that are to be painted.
- 9B.6.1 Wood surfaces shall be free from dust and in approved condition to receive the paint. The use of water on unpainted wood shall be avoided. Knots and resinous wood shall be treated with an application of knot sealer, prior to application paint. Puttying of cracks and nail holes shall be done after the priming coat has been applied and has dried properly. Sandpapering, when required, shall be done after the undercoats are dry.
- 9B.6.2 Concrete and plaster shall be repaired before painting. Dirt, fungus, grease and oil shall be removed prior to application of paint by washing the surfaces with a mildew and fungus treatment and then rinsing thoroughly with fresh water. Efflorescence shall be removed from concrete and masonry surfaces by scraping, wire brushing and washing with a 5-10%, by weight, solution of muriatic acid and then washing thoroughly with fresh water, removing all traces of the acid. Treat the wall with masonry neutralizer. Apply liberally by brush and let dry overnight. Rinse with water to remove white crystals that form on the surface and let dry. Glaze and all loose particles and scale shall be removed by wire brushing.
Puttying of concrete and plaster surfaces shall be done after the priming coat has been applied and has dried properly. **Sandpapering will be required prior to 2nd coat of paint to provide an even and smooth surface.**
- 9B.7 Workmanship
- 9B.7.1 Mix paint with proper consistency. Apply paint evenly and brush efficiently to minimize brush marks. Stir paint thoroughly to keep pigment in even suspension when paint is being applied.
- 9B.7.2 Number of coats. Except as otherwise specified, **apply all paints in 3 coats** (priming, body and finish). Allow each coat to dry thoroughly before succeeding coat is applied. In general, provide not less than 48 hours duration between the application of coats.
- 9B.7.3 **If surfaces are not fully covered or cannot be satisfactorily finished in the number of coats specified, apply subsequent coats to attain the desired evenness of paint without extra cost to the Owner.**
- 9B.7.4 Do not paint exterior while surface is damp or during rainy or damp weather.
- 9B.7.5 Tint undercoats or paint or enamel to same or approximate shade of final coat.
- 9B.7.6 Protect or remove hardwares, hardware accessories, plates, lighting fixtures and other similar items during the painting operation and reinstall them after completion of work. All exposed finish hardwares, plumbing fixtures and accessories, glasses and the like shall be adequately protected that these are not stained with paint and other painting materials prior to painting works. All other surfaces which would be endangered by stains and paint marks should be taped and covered with kraft paper or equal.

SECTION 9C TILEWORK

9C.1 General. The work shall not be started until the rough in for plumbing and electrical work has been completed and tested.

9C.2. Submittals

9C.2.1 Submit under provisions of Section 1B Control of Materials.

9C.2.2 Product Data. Manufacturer's data sheets on each tile product should include:

- Product characteristics and specifications
- Surface preparation instructions and recommendations
- Recommended adhesive and grouting material and brand
- Storage and handling requirements and recommendations
- Application methods
- Manufacturer's warranty

9C.2.3 Selection Samples. **Submit a range of tile samples for approval by the Architect and Owner for approval.**

9C.3 Delivery and storage. Manufacture materials shall be delivered in the manufacturer's original unbroken packages or containers that are labeled plainly with the manufacturer's name and brands. Containers for tiles shall be grades sealed. Materials shall be stored in any weather tight enclosures and shall be handled in a manner that will prevent damage by wear or dampness.

9C.4 Materials.

9C.4.1 Tiles

9C.4.1.1 Ceramic floor tiles, 600x600mm

9C.4.1.2 Unglazed ceramic floor tiles, 300x300mm

9C.4.1.3 Glazed ceramic wall tiles, 300x300mm

9C.4.2 Tile trims shall be provided for a completely and neatly finished installation.

Trim units shall be identical in color to wall tiles.

9C.4.3 Tile grouting shall be of reputable brand tile grout. Tile grout shall be identical in color to the wall tiles.

9C.4.4 Tile adhesive for floor and wall tiles shall be of reputable brand tile adhesive.

9C.4.5 Water shall be potable.

9C.5 Installation

9C.5.1 Mortar materials shall be **measured in approved containers** which will ensure that the specified proportions of materials will be controlled and accurately maintained during the progress of the work. Measuring materials with shovels ("shovel count") will not be permitted. Mortar boxes, pans, floor slabs and mixer's drums shall be kept clean and free from debris or dried mortar. **Proportion of mortar shall be 1 part Portland cement to 4 parts dry sand.**

9C.5.2 Application of the flooring. Surfaces to receive the tiles shall be clean, free of dust, dirt, oil, grease and other deleterious substance. Floor tile operations in spaces receiving a wall tile shall not be started until after wall tile installation has been completed. Before a tile is applied with a dry set mortar bed, the structural floor shall be tested for levelness or uniformity of the slope by flooding it with water. Areas where the water ponds shall be filled, leveled and re-tested before the setting bed is applied.

9C.5.2.1 Mortar setting beds shall be a **minimum thickness of 20mm for floors and 44mm for toilet areas**. The structural concrete slab shall be soaked thoroughly with clean fresh water on the day before the setting bed is to be applied. Immediately preceding the application of

the setting bed, the structural slab shall be wetted again thoroughly, but no free water shall be permitted to remain on the surface

9C.5.2.2 **Application of tile flooring adhesive.** Tiles shall be soaked in water at least 12 hours before it shall be sued. No free water shall remain on the tiles at the time of setting. **A skim coat of neat tile adhesive, 0.79mm to 1.59mm thick shall be trowelled at or brushed over the setting bed and/or back of the tile.** The tile shall then be pressed firmly upon the setting bed and beaten into the adhesive until true and even with the plane of the finished floor line. Beating and leveling shall be completed within one hour after placing the tile sheets. Tiles shall fit closely and neatly at all plumbing fixtures and around electrical outlets, pipes and fittings so those cover plates or escutcheons will overlap the tiles properly. Tiles shall be secured firmly in place and loose tiles or tiles sounding hollow shall be removed and replaced. All lines shall be kept straight, parallel and true and even planes. The inner edge of borders shall be kept straight.

9C.5.3 Application of wall tiles.

9C.5.3.1 Interior masonry shall be clean, thoroughly dry, sound and sufficiently rough to provide a strong mechanical bond. Surfaces shall be evenly dampened immediately prior to the application of the scratch coat.

9C.5.3.2 Scratch coat shall be applied to masonry, as backing for wall tiles, not less than 24 hours or more than 48 hours before starting the tile setting. Scratch coats shall be applied with sufficient pressure to ensure a proper base for the setting bed.

9C.5.3.3 Mortar setting bed. Immediately preceding the application of the mortar setting bed, the scratch coat shall be moistened thoroughly but not saturated. **The thickness of the setting bed shall not exceed 20mm and the mortar shall not be re-tempered.**

9C.5.3.4 Application of tiles to walls. Absorptive-mounted tiles shall be dampened by placing sheets on a wetted cloth, in a shallow pan before setting. A skim coat of neat tile adhesive mortar, mixed with water to the consistency of pasty, thick cream shall be applied 0.79m to 1.59mm thick to the mortar setting bed. Tiles shall fit closely and neatly at all plumbing fixtures and around electrical outlets, pipes and fittings so those cover plates or escutcheons will overlap the tiles properly. Tiles shall be secured firmly in place and loose tiles or **tiles sounding hollow shall be removed and replaced.** All lines shall be kept straight, parallel and true and even planes.

9C.5.4 Grouting and pointing. Tiles shall be wetted if they have become dry, before applying grout. **Joints 3mm or less in width shall be routed with a neat white Portland cement grout of the consistency of thick cream.** Other joints shall be pointed with mortar consisting of white portland cement and 2 parts pointing sand. The grout of mortar for joints in floors, walls and other vertical surfaces shall contain white Portland cement. Care shall be taken to avoid scratching glazed finishes. All surplus mortar or grout shall be removed before it has set or hardened.

9C.5.5 Cleaning and curing. Floors shall be covered with waterproofed paper with all joints lapped at least 100mm and the laps tape-sealed or held down with planks or other weights and allowed to damp-cure for at least 72 hours before foot traffic is permitted thereon. Acid cleaning unglazed tiles, when necessary, shall not be done within 10 days after setting tiles.

SECTION 9D ACOUSTIC BOARD CEILING

- 9D.1 General. Furnish materials and equipment and perform labor required to complete all acoustic board ceiling panels on suspended metal framing system.
- 9D.2 Submittals. The contractor shall **submit three (3) full size samples of the acoustical tile ceiling material and powder-coated metal T-runner**, including full technical data on the material and an outline of the proposed method of surface preparation and installation for approval. Included shall be the recommended procedures for maintenance and repairs of the ceiling finish.
- 9D.3 Materials.
- 9D.3.1 Acoustic board, 600x600x20 mm thick with all edges beveled square, non-combustible mineral wool tile with factory applied, washable, white vinyl latex paint finish.
- 9D.3.2 Ceiling metal framing assemblies as follows:
- Hangers shall be pre-punched, hot-dipped galvanized steel, 1.0m thick.
- Suspension rod shall be hot-dipped galvanized steel 6.0mm diameter.
- Carrying channel clip shall be spring steel clip 0.6mm thick.
- Furring channel joiner and furring clip shall be galvanized steel gauge 24 thick.
- Furring member shall have double grading, galvanized steel 5.0M long, 0.40M thick.
- Powder-coated metal T-runners and wall angle shall have 25mm T section support frame.
- 9D.4 Installation.
- 9D.4.1 The acoustical tile shall be installed only after the areas where the tiles will be installed meet the following requirements:
- 9D.4.1.1 All mechanical and electrical work, the installation of the metal framing assemblies and other work above ceilings have been completed.
- 9D.4.2 One layer acoustical board applied at right angles to rigid **furring channels 0.60M on center**, with 1 inch type drywall screws 0.30 M on center. Rigid furring channels attached to carrying channels using w-clips. Carrying channels spaced at 0.60 M on center supported by 3/8 inch diameter hanger rods. Install as per manufacturer's instructions and recommendations.

SECTION 9E FIBER CEMENT BOARD CEILING

- 9E.1 General. Furnish materials and equipment and perform labor required to complete all fiber cement board ceiling panels on suspended metal framing system.
- 9E.2 Submittals. **The contractor shall submit three (3) full size samples of the fiber cement board material, fiber cement joint sealant and metal framing system, including full technical data on the material** and an outline of the proposed method of surface preparation and installation for approval. Included shall be the recommended procedures for maintenance and repairs of the ceiling finish.
- 9E.3 Materials.
- 9E.3.1 Fiber cement board, commercially available size of 2400x1200x4.5 mm thick.
- 9E.3.2 Fiber cement board epoxy or joint sealant
- 9E.3.3 Ceiling metal framing assemblies as follows:
- Hangers shall be pre-punched, hot-dipped galvanized steel, 1.0m thick.

Suspension rod shall be hot-dipped galvanized steel 6.0mm diameter.
Carrying channel clip shall be spring steel clip 0.6mm thick.
Furring channel joiner and furring clip shall be galvanized steel gauge 24 thick.
Furring member shall have double grading, galvanized steel 5.0M long, 0.40M thick.
Carrying channel and wall angle shall have 25mm T section support frame.

9E.4 Installation.

9E.4.1 The fiber cement board ceiling shall be installed only after the areas where the boards will be installed meet the following requirements:

9E.4.1.1 All exterior openings shall be closed and roofs weathertight.

9E.4.1.2 All mechanical and electrical work, the installation of the metal framing assemblies and other work above ceilings have been completed.

9E.4.2 One layer fiber cement board applied at right angles to rigid furring channels 0.60M on center, with 1 inch type drywall screws 0.30 M on center. Rigid furring channels attached to carrying channels using w-clips. Carrying channels spaced at 0.60 M on center supported by 3/8 inch diameter hanger rods. Fiber cement boards to be joined must be clean, dry, dust and oil free prior to application of the joint epoxy or sealant. Install as per manufacturer's instructions and recommendations. Provide 3mm grooves as indicated in the reflected ceiling plans.

SECTION 9F ALUMINUM COMPOSITE PANEL

9F.1 General. Furnish materials and equipment and perform labor required to complete all Aluminum Composite Panel Cladding works/ system including fabrication and installation of Aluminum stiffener, mounting brackets, sealant and other fixing accessories.

9F.2 Submittals. The contractor shall submit three (3) samples of the Aluminum Composite Panel, including full technical data on the material and an outline of the proposed method of surface preparation and installation for approval. Included shall be the recommended procedures for maintenance and repairs of the panels.

9F.3 Materials Requirements

9F3.1 Aluminum.

The Aluminum shall be high strength, heat-treatable alloy which provides good formability and weldability and good corrosion resistance. It shall be suitable for a wide variety of architectural application and of commercial quality unless specified in the Plans. It shall conform to the applicable requirements as ASTM B 209M, Standard Specification for Aluminum and Aluminum Alloy Sheet and Plate.

Panel Thickness shall be 4mm/ 0.30 mm.

Finishing Coating shall be PVDF.

Color of the panel shall be Bright Silver or as prescribe by the Architect.

9F.4 Installation

The Aluminum Composite Panel Cladding shall be installed only after the areas where the panels will be installed meet the following requirements

9F.4.1 Before installation of Aluminum Composite Panel Cladding, the site condition should be assessed. All exterior openings shall be closed and weather tight and have stable and dry environment. The Composite Panels should only be installed after the trades, such as

plaster and screed-work have been completed and the environment is dry and stable.

9F.4.2 All exterior walls shall be on smooth cement finish.

9F.4.3 All mechanical and electrical work have been completed

DIVISION 10: SPECIALTIES

NOT APPLICABLE

DIVISION 11: EQUIPMENT

NOT APPLICABLE

DIVISION 12: FURNISHINGS

NOT APPLICABLE

DIVISION 13: SPECIAL CONSTRUCTION

NOT APPLICABLE

DIVISION 14: CONVEYING SYSTEM

NOT APPLICABLE

DIVISION 15: MECHANICAL AND PLUMBING

SECTION 15A PLUMBING WORKS

1A Scope:

Unless otherwise specified, the Contractor or his subcontractor shall furnish all materials, tools, equipment, apparatus, appliances, accessories, transportation, labor and supervision required for the complete installation and testing of the Plumbing System ready for use in accordance with the best practice of the Plumbing Trade as listed herein but not limited to the following:

- 1A.1 The Plumbing Contractor is required to refer to all Architectural, Structural, Mechanical, Fire Protection, and Electrical plans and investigate all possible interference and conditions affecting his work.
- 1A.2 All work shall comply with the pertinent provisions of the Plumbing Code of the concerned city, the Code on Sanitation of the Phil., and/or the National Plumbing Code of the Philippines.
- 1A.3 Tapping from an existing water main of the building distribution system to include supply and installation of main water meter and gate valve.
- 1A.4 Water supply and distribution system for the building and ground.
- 1A.5 All building sanitary drains, waste and venting systems including floor drains.
- 1A.6 Sewage collection and disposal system including cleanouts up to septic tanks or service sewer line.

- 1A.7 Building storm drainage system including roof deck drain, catch basins and connection to street drainage.
- 1A.8 Kitchen waste and vent system.
- 1A.9 Supply and installation of all plumbing fixtures, fittings, and accessories.
- 1A.10 Supply and installation of underground water tank and booster pump.
- 1A.11 Testing for leakages of all storm drainage, waste, sewer and venting system plus pressure testing and disinfection of the potable and non-potable water supply and distribution system.
- 1A.12 Securing of all permits and licenses as required to include water connection.
- 1A.13 Excavation and backfilling in connection with the work shall be included.
- 1A.14 Preparation and submittal of two (2) sets of As-built plans and one (1) set of reproducible prints.
- A.15 Furnishing of written one (1) year warranty on the plumbing system.

1B Work Not Included

- 1B.1 Construction of septic tank shall be by Civil Works.
- 1B.2 All electrical power wirings, except that furnished as an integral part of factory assembled except as otherwise specified herein.
- 1B.3 Painting except as required by the Plumbing Code and as specified herein.

1C Notes On Drawings:

- 1C.1 The drawings show the general arrangement of all piping. However, where local and/or actual conditions at the jobsite necessitate a deviation or rearrangement, the Contractor shall prepare and submit the new arrangement for the Architect's approval.
- 1C.2 Small scale Drawings do not possibly indicate all offsets, fittings and other parts of the system required. The Contractor shall arrange such work accordingly, furnishing such fittings, traps valves and accessories as may be required to meet such conditions.

1D Applicable Specification Codes, Ordinances, Permits and Fees:

- 1D.1 The work covered in this contract it to be installed according to the specs, codes, ordinances and requirements of the following:
 - 1. National Plumbing Code of the Philippines
 - 2. The Code on Sanitation of the Philippines
 - 3 National Pollution Control Commission
 - 4. Ordinances of concerned city or municipality
- 1D.2 All construction permits and fees required for the work shall be obtained by and at the expense of the contractor. The contractor shall furnish the Owner final certificates of inspection after the completion of the work.

1E Workmanship & Coordination with Trades:

- 1E.1 All work shall be performed in first class and neat workmanship by mechanics skilled in their trades and such mechanics and their work shall be satisfactory to the Architect/Engineer.
- 1E.2 The Plumbing Contractor is required to refer to the General Conditions and to all Architectural, Structural, Electrical, Mechanical and Fire Protection plans and shall investigate all possible interference and conditions affecting his work.

2 PRODUCTS

2A General:

- 2A.1 Except as specified, the Contractor shall submit for the Engineers approval, four (4) copies of a complete list of manufacturer's name of all equipment and materials he proposes to use, within thirty (30) days after award of contract.
- 2A.2 The Contractor shall assume the cost of and the entire responsibility for any change in the work as shown on contract drawings which may be occasioned by approval of materials other than those specified.

2B Pipes and Fittings Schedule

- 2B.1 Potable and Non-Potable Water Lines – PPR Pipes / Valves PN 20 conforming to ISO 15874 by Bugatti Pipes or approved equal. Jointing shall be by PPR fusion equipment.
- 2B.2 Sewer and Waste Line – PVC Pipes and fittings conforming to ASTM D2729, ASTM D3311 and ISO 4435 by Neltex or approved equal. Jointing shall be PVC Cement conforming to ASTM D2564.
- 2B.4 Vent pipes – PVC Pipes and fittings conforming to ASTM D2729 and ASTM D3311 by Neltex or approved equal.
- 2B.5 Storm pipes – PVC Pipes and fittings conforming to ASTM D2729 and ASTM D3311 by Neltex or approved equal. Jointing shall be PVC Cement conforming to ASTM D2564.
- 2B.6 Aircon Drain Pipes – HDPE Pipes and fittings conforming to ASTM D2729 and ASTM D3311 by Atlanta or approved equal.

2C Valves

- 2C.1 Gate Valve - 65mm and smaller, shall be rising stem, all bronze, female threaded, min. of 150 psi working connection. Approved model, "Bermad", "KITZ" or approved equal.
- 2C.2 Check Valve - 65mm and smaller, same except female threaded connection. Approved model "Bermad", Kitz or approved equal.

2D Other Materials

- 2D.1 Drains - "JAMAN Product Incorporated" as indicated or approved equal.
 - 1. Floor/Shower- JPI or equal
 - 2. Cleanout - JPI or equal
 - 3. Roof deck - JPI or equal
- 2D.2 Hose Bibb - 20mm standard hose connection, male tapered threads, polished chromium plated.

3.0 IDENTIFICATION & APPROVAL OF MATERIALS

- 3A** Each length of pipe, fittings, traps, fixtures and device used in the Plumbing System shall have cast, tamped or marked on it, the manufacturer's trade mark or name, the weight, type and classes of product when so required by the Standard.
- 3B** Within thirty (30) days after award of the Contract, the Contractor shall submit for the Architect's approval, the names and/or samples of the materials if deemed necessary.
- 3C** Brand names mentioned in this Specification are only for the purposes of indicating the desired quality and design.

4.0 SUBSTITUTION & TESTING OF MATERIALS

4A Submittals.

Materials intended to be substituted for those originally specified shall be accepted only after a formal request for substitution, accompanied by:

1. Reasons for substitutions
2. Certificate of test indicating quality, compared to those originally specified.
3. Cost comparisons with material originally specified. Request shall be submitted to the Architect for evaluation at least 15 working days before installation of subject materials is due, or at least 7 days before opening of bids.

4B Cost of testing of materials, whether on originally specified items or on substitutions, shall be to the account of the Contractor.

4C Results of tests shall be submitted to the Architect for evaluation at least 15 days before the material is due for installation on the job.

5.0 SOIL, WASTE, DRAIN AND VENT PIPES

5A General

5A.1 Underground soil, waste and water pipes and fittings shall be PVC pipes, unless specifically noted. Soil and waste pipes above ground shall be PVC pipes. Vent pipes shall be polyvinyl chloride (PVC) pipe. Fittings for piping above ground shall be drainage pattern. Fittings for piping on all dry vents shall be polyvinyl chloride (PVC) pipe. All exposed stack shall be cast iron soil pipes, extra heavy grade.

5B Traps.

Every plumbing fixture shall be separately trapped by a vented water sealed trap as close to the fixture outlets as the conditions allow, but in no case at a distance greater than 600mm. In case of the upper or the only fixture on a soil pipe extended full size through the roof, a vent shall not be required when said fixture has its center stack. Traps shall be of the same diameter as the waste pipes from the fixtures which they shall serve, all traps shall have a water seal of at least 32 millimeters with a brass thumbscrew cleanout at the bottom of the seal.

5C Vent.

5C.1 Vent shall be taken from the crown of the fixtures, except for water closet traps, in which case, the branch line shall be vented below and trap and above all small waste inlets, so connected as to prevent obstructions. Each vent pipe shall be run separately above the fixtures into the adjacent soil pipes, a distance not more than 1.50 meters. If more than this distance, the vent shall run immediately through the roof.

5C.2 A vent line shall be wherever practicable, direct extension of a soil or waste line.

5C.3 Main vent risers at 4.5 meters along or more shall be connected at the foot with the main water or soil pipes below the lowest vent outlet with a forty-five degree (45°) connection.

5C.4 All vertical soil or vent pipes shall be carried up at least 600mm above the roof of the building and the open side ends are to be entirely and securely covered with ga. 16 mesh copper cloth.

5C.5 Vent pipes in roof spaces shall be run as close as possible to the underside of roof with horizontal piping pitched down to stacks without forming traps. Where an end or circuit vent pipe from fixtures it shall be connected into the main vent or vent stack.

5D **Roughing-in** for pipes and fixtures shall be carried along with the building construction. Correctly located openings of proper sizes shall be provided where required in the walls and floors for the passage of pipes all items to be embedded in concrete shall be thoroughly clean and free from all rust, scale and paint.

5E **Fittings.**

All changes in pipes sizes on soil, waste and drain lines shall be made with reducing fittings or reducers. All changes in direction shall be made by the appropriated use of forty-five degrees (45°) wyes, or long sweep bends, except that sanitary tees may be used on vertical stacks. Short quarter bends or elbows may be used in soil and waste lines where the change in direction is from the horizontal to the vertical and on the discharge from the water closet.

5F **Joints and Connections.**

All joints shall be air water tight. For joining pipes, the following shall be used.

1. Concrete pipes: bell and spigot or tongue and groove,
2. Polyvinyl chloride (PVC) pipes, socket type with PVC cement.

6.0 WATER DISTRIBUTION

6A **Meter**

6A.1 Water meter shall still be the existing water meter that supply the building.

6A.2 The exact dimensions for setting the meter shall be as per requirements of the Metropolitan Waterworks and Sewerage System (MWSS).

6B **Installation**

6B.1 The piping shall be extended to all fixtures, outlets and equipment from the gate valves installed in the branch near the riser.

6B.2 Unions shall be provided where required for disconnection.

6B.3 All pipes shall be cut accurately to measurements and shall be worked into place without springing or facing. Care shall be taken so as not to weaken the structural portions of the building.

6B.4 All service pipes valves and fittings shall be kept at sufficient distance from work to permit finished covering not less than 15mm from such work or from finished covering on the different service.

6B.5 Changes in pipes shall be made with reducing fittings.

6B.6 Accessible Contraction - Expansion joints shall be made wherein necessary. Horizontal runs of pipe over 15m in length shall be anchored to wall or the supporting structure about midway on the run to force expansion and contraction equally towards the ends.

7.0 EXCAVATING, PIPE LAYING AND BACKFILLING:

7A **Trenches.** Trenches for all underground pipe lines shall be excavated to the required depths and grades.

7B **Materials.** Materials for backfilling shall be free of debris or big rocks. Backfill shall be placed in horizontal layers, properly moistened and compacted to an optimum density that will prevent excessive settlement and shrinkage.

8.0 MISCELLANEOUS

8A **Cleanout** shall be of the same size as the pipe, the location of which is extended to an easily accessible place.

8B **Traps**

- 8B.1 Every plumbing fixtures of equipment requiring connections to the drainage system shall be equipped with a trap.
- 8B.2 Each trap shall be placed as near as possible to the fixture. No fixture shall be double-trapped.

9.0 TEST AND DISINFECTION

9A **Drainage System Test**

- 9A.1 The entire drainage and venting system shall have all necessary openings which can be plugged to permit the entire system to be filled with water to the level of the highest stack vent/or vent stack above the roof.
- 9A.2 The system shall hold this water for a full thirty (30) minutes during which time there shall be no drop more than 100mm.
- 9A.3 Each section of pipeline shall be slowly filled water and the specified test pressure, measured at the point of lowest elevation shall be applied by means of satisfactory to the Architect. During the filling of the pipe in and before applying the test pressure, all air shall be expelled from the pipe line. To accomplish this type shall be made if necessary, at point of highest elevation, and after completion of the test the taps shall be tightly plugged unless otherwise specified.

During the test, all expose pipes, fittings, valves joints and couplings will be carefully examined. If found to be cracked or detective, they shall be removed and replaced by the Contractor with sound materials at his own expense. The test shall be repeated until a satisfactory result has been obtained.

9B **Pressure Tests for Water Lines;**

- 9B.1 After the pipe have been installed, the joints completed and with joints exposed for examination, all newly installed pipe or any valve section therefore, shall be subjected to hydrostatic pressure 1 ½ the designed working pressure of the system or as specified by the Architect.
- 9B.2 The duration of each pressure test shall be at least 120 minutes unless otherwise specified the Architect.
- 9B.3 Each section of pipeline shall be slowly filled water and the specified test pressure, measured at the point of lowest elevation, shall be applied by means of a pump connected to the pipe in a manner satisfactory to the Architect. During the filling of the pipe and before applying the test pressure, all air shall be expelled from the pipe line. To accomplish this, it shall be made, if necessary, at point of highest elevation, and after completion of the test the taps shall be tightly plugged unless otherwise specified.

During the test, all exposed pipes, fittings, valves, joints and couplings will be carefully examined. If found to be cracked or defective, they shall be removed and replaced by the Contractor with sound materials at his expenses. The test shall then be repeated until satisfactory results are obtained.

9C **Defective Work:**

- 9C.1 If the inspection or test shows any defect, such defective work or material shall be replaced and the test shall be repeated until satisfactory to the Architect.

9C.2 All repairs to piping shall be made with new material at the expense of the Contractor.

9D Disinfection of Water Distribution System and Water Tanks (As Per Awwa C-601)

9D.1 The entire water system shall be thoroughly flushed and disinfected with chlorine before it is placed on operation. Water tanks shall be washed and swabbed.

9D.2 Chlorination materials shall be liquid chlorine or hypochlorite, as specified and shall be introduced into the water lines in a manner approved by the Engineer. Tanks shall be thoroughly cleaned of all debris, dirt or dust before swabbing.

9D.3 The chlorine dosage shall be such as to provide not less than fifty parts per million (50ppm) or available chlorine.

9D.4 Following a contact period of not less than sixteen (16) hours, the heavily chlorinated water shall be flushed from the system with clean water until the residual chlorine content is not greater than two tenth (0.20 ppm). All valves in water lines being sterilized shall be opened and closed several times during the 16-hour chlorinating period.

10.0 WARRANTY & "AS-BUILT" PLANS

10A General. All works, equipment and fixtures shall be guaranteed by the Contractor for satisfactory service for a minimum period for one (1) year.

10B Submittal. The Contractor shall submit to the Owner, in reproducible form plus two (2) sets of white prints, the complete plans of the entire system as actually built. The cost of those shall be borne by the Contractor. Submittal of "AS BUILT" Plans shall be a condition to final payment.

10C Equipment. Equipment that should have the Owner(s) your minimum guaranteed against defective designs, materials and workmanship.

11.0 RESPONSIBILITY

11A General. The general Contractor shall be responsible for the coordination among the different trades on the job in order to finish the work in the least possible time, in strict accordance with the Plans and Specifications.

1. Throughout the construction period open ends of all installed pipe lines shall be kept closed by temporary plugs.
2. Drainage lines shall not be used to conduct dirty construction wash water especially those with cement mixes to avoid possible clogging.
3. A temporary fire protection system shall be provided by the Contractor during the construction period. This shall be of sufficient capacity to put out any fire that may break out at any floors due to construction operations. This is in addition to temporary fire extinguisher required.
4. A temporary potable water supply shall be made available to construction workers at every floors as construction progresses.
5. A temporary human excreta disposal system shall be provided by the Contractor to serve the workers during the construction period.

DIVISION 16 : ELECTRICAL SYSTEM

16.1 Scope of Work

All work under these specifications shall consist of furnishing/cause to furnish materials, labor, tools, appliances, and all other services necessary unless otherwise indicated to complete and make ready for operation, the electrical power, lighting, and other utility system described herein and/or indicated in the electrical plans including owner-furnished equipment and fixtures. In accordance with the electrical plans and these specifications.

- 1) Roughing-in and wiring for lighting layout.
- 2) Supply and installation of lighting fixtures, switches.
- 3) Supply and installation of hangers and supports of conduits for power and feeder system.
- 4) Painting of electrical works covering conduits, boxes, hangers, gutters, and the like.
- 5) Testing for electrical system:
 - a. Insulation resistance test
 - b. Ground resistance test
 - c. Continuity test
 - d. Operational test
 - e. Polarity check
 - f. Phase balancing check

16.1.1.21 Anything that has been omitted in any of work or materials usually furnished which are necessary for the completion of the works as outlined herein shall be undertaken or supplied by the contractor included in this division of work and must be included in the bid proposal.

16.2 CODE REGULATIONS

All materials and equipments to be used in the electrical installations and construction shall be in accordance with the provisions of the latest edition of the Philippine Electrical Code and the pertinent ordinances of the municipality wherein the project is located.

All work shall comply with the rules and regulations of the local power utility company in so far as they are concerned in providing the respective permanent services to the building.

16.3 DRAWINGS AND SPECIFICATIONS

The electrical plans and these specifications are meant to be complementary to each other, and what is called for in one shall be as binding as if called for by both.

Any permanent conflict between the electrical plans and these specification and any unclear points of controversial matter in either shall be referred to the owner's assigned representative for final decision.

Upon final completion of the work herein described, the electrical contractor shall furnish the Owner two (2) copies of the "As-built" plans for future reference and maintenance purposes.

The electrical plans indicate the general layout of the complete electrical system, arrangement of feeders, circuit outlets, switches, controls, panel boards, service equipment and other work. Field verification of the scale dimensions on the plane must be made, since actual locations, distances and levels will be governed by actual field conditions.

The Electrical Contractor shall check architectural, structural and plumbing plans if necessary to resolve such conflicts. The Electrical Contractor shall notify the architect and secure approval and agreement on necessary adjustments before installation is started.

16.4 PERMITS AND INSPECTION

The Electrical Contractor shall obtain all necessary permits and certificates of electrical inspection from the proper government authorities concerned, required both for the performance of the work involved and the operation of the system upon completion of the work.

The Electrical Contractor shall pay all the fees necessary to secure the above-mentioned permits and certificates.

The Electrical Contractor shall at his own expense, reproduce the electrical plans to the necessary scale and size, complete them with all the necessary information and requirements as maybe required by the government authorities concerned with the approval of plans.

The Electrical Contractor shall coordinate with the local power company regarding the power facilities and secure approval of the power requirements.

16.5 MATERIALS AND WORKMANSHIP

All materials to be used shall be brand new, with trade name, unused, and shall in every case be the best where such standards have been established for the particular type of materials used.

Trade/brand name of materials indicated in the specifications are recommendatory in nature and are included for the purpose of uniformity in bids. If trade/brand names other than those indicated are to be used during construction, brochures and samples shall be submitted to the owner's representative for approval.

Only skilled workmen using proper tools and equipment shall be employed during the entire course of the installation work. All workmanship shall be of the best quality and all works shall be done in accordance with the best engineering practice of the trade involved.

16.6 WIRING METHOD

Lighting and Power Branch Circuit – IMC pipes concealed in ceilings and double walls and/or embedded in concrete walls/slabs. All uPVC pipes ran underground outside of buildings shall be buried not less than 40mm below natural grade line and enclosed in concrete envelope. All concrete envelopes passing under roadways or areas accessible to vehicles shall be steel reinforced up to 1.0m from the edge of the roadway.

Low Voltage Service Entrance and All Feeders – rigid steel conduit, exposed/concealed in ceiling/double walls, embedded in concrete walls/slabs or ran underground encased in concrete.

All boxes, cabinets and other equipments shall be flush-mounted unless specified/approved otherwise.

All boxes for lighting outlets, convenience outlets, tumbler switches and other devices shall be galvanized pre-painted and approved products of reputable manufacturers. Cut ends of conduits shall be reamed and cleaned to remove burr and sharp edges. Threads cut on conduits shall be the same thread dimensions as factory cut conduit threads. Conduits joints shall be made straight and true. Elbows and offsets and changes in direction and runs shall be uniform. Bends shall be made without kinking or destroying the cross-sectional contours of the conduits. Conduit terminals shall be provided at outlet boxes and cabinets with locknuts and bushing. Conduits shall be continuous from outlet and from outlet to pull boxes and cabinets in the manner that the conduit system shall be electrically continuous.

Where conduit runs are exposed, they shall be supported at an interval of not more than 0.75 m maximum with proper clamps and bolts or expansion shields or other means of support.

All splices, taps, junction in wires larger than 8.0 sq.mm. Shall be done with solderless connectors of suitable sizes and properly insulated with rubber tapes and protected by friction tapes, so that the insulation strength shall at least be equal to the insulation of the conductors they join.

Unless otherwise specified, the type of wires to be used shall either be THWN or THHN. Smallest size of wire to be used for lighting and power unless otherwise indicated shall be 3.5 sq.mm.

16.7 FEEDERS

Feeders shall be laid out in accordance with the riser diagram shown in the electrical plans.

Unless otherwise specified type THWN or THHN wires shall be used for feeder lines. The wires and conduits sizes shown in the electrical plans shall be the minimum sizes to be used.

16.8 WALLS SWITCHES AND RECEPTACLES

All wall switches shall be flush type and mounted 1.40 meters above finish floor line unless otherwise specified.

Convenience outlets shall be grounding type, wall flushed, mounted 0.30 meter above finished floor line or finished counters unless otherwise specified in the plan. Ground fault circuit interrupter protected convenience outlets shall be used in bathrooms, lavatories, sinks, laundry areas and the like.

16.9 MAIN SWITCHES, TRANSFER SWITCHES, PANELBOARDS

The cabinets for the above shall be of standard sizes and shall be gauge #16. Circuit breakers shall be as specified in the plan and shall be followed at all times.

16.10 LIGHTING FIXTURES

Install all lighting fixtures and lamps as specified and as shown on plans.

All lighting fixtures housing shall be of US Gauge 22 minimum.

Submit one sample of each type of fixtures to the Architect for approval prior to manufacturing and installation.

Section VII. Drawings

(Please see separately compiled Pre-Construction Drawings for Phase I)

Section VIII. Bill of Quantities

I(Please see separately compiled Bill of Quantities for Phase 1)

Section IX. Bidding Forms

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“Annex A”

Bid Form

Date: _____
Invitation to Bid No: PB 19-225-5

To: PROCUREMENT SERVICE

*Bids and Awards Committee V
2nd Floor, PS Complex, RR Road
Cristobal St., Paco, Manila*

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;

Item No.	Qty	Item / Description	Total Price
1	1 Lot	PROPOSED INFRASTRUCTURE DEVELOPMENT OF BOQ MAIN BUILDING PHASE I	P

TOTAL PRICE IN WORDS

Item No. 1: | _____

- (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
- (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: _____

“Annex B”

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]

“Annex C”

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.

10. *[Name of Bidder]* hereby assigns the following contact number/s and e-mail address/es as the official telephone/fax number and contact reference of the company where the PS BAC and PS notices may be transmitted.

Telephone No/s.: _____
Fax No/s.: _____
E-mail Add/s.: _____
Mobile No.: _____

It is understood that notices/s transmitted in any of the above-stated telephone/fax numbers and/or e-mail address/es are deemed received as of its transmittal and the reckoning period for the reglementary periods stated in the bidding documents and the revised Implementing Rules and Regulations of Republic Act No. 9184 shall commence from receipt thereof.

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 exhibited to me his/her [insert type of government identification card used*], with his/her photograph and signature appearing thereon, with 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. _____

Note:

“Sec. 12. Competent Evidence of Identity – The phrase “competent evidence of identity” refers to the identification of an individual based on:

At least one current identification document issued by an official agency bearing the photograph and signature of the individual, such as but not limited to, passport, driver's license, Professional Regulations Commission ID, National Bureau of

Investigation clearance, police clearance, postal ID, voter's ID, Barangay certification, Government Service and Insurance System (GSIS) e-card, Social Security System (SSS) card, Philhealth card, senior citizen card, Overseas Workers Welfare Administration (OWWA) ID, OFW ID, seaman's book, alien certificate of registration/immigrant certificate of registration, government office ID, certification from the National Council for the Welfare of Disabled Persons (NCWDP), Department of Social Welfare and Development (DSWD) certification;

The Board Resolution or Secretary's Certificate referring to the said Board Resolution designating the bidder's authorized representative and signatory need not specifically indicate the particular project where such authority is given provided that the said authority covers activities by PS.

“Annex D”

Bid-Securing Declaration

(REPUBLIC OF THE PHILIPPINES)

CITY OF _____) S.S.

X-----X

Invitation to Bid: *Public Bidding No. 19-225-5*

**PROPOSED INFRASTRUCTURE DEVELOPMENT OF BOQ MAIN
BUILDING PHASE I**

To: PROCUREMENT SERVICE

*Bids and Awards Committee V
2nd Floor, PS Complex, RR Road
Cristobal St., Paco, Manila*

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 exhibited to me his/her [insert type of government identification card used*], with his/her photograph and signature appearing thereon, with 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 Attorney's No. _____

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

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

Doc. No. _____

Page No. _____

Book No. _____

Series of _____.

**The identification card shall be at least one of those acceptable proofs of identity as identified under the provisions of the 2004 Rules on Notarial Practice.*

“Sec. 12. Competent Evidence of Identity – The phrase “competent evidence of identity” refers to the identification of an individual based on:

At least one current identification document issued by an official agency bearing the photograph and signature of the individual, such as but not limited to, passport, driver's license, Professional Regulations Commission ID, National Bureau of Investigation clearance, police clearance, postal ID, voter's ID, Barangay certification, Government Service and Insurance System (GSIS) e-card, Social Security System (SSS) card, Philhealth card, senior citizen card, Overseas Workers Welfare Administration (OWWA) ID, OFW ID, seaman's book, alien certificate of registration/immigrant certificate of registration, government office ID, certification from the National Council for the Welfare of Disabled Persons (NCWDP), Department of Social Welfare and Development (DSWD) certification;

LIST OF KEY PERSONNEL PROPOSED TO BE ASSIGNED TO THE CONTRACT

“Annex E”

Business Name : _____
 Business Address : _____

	Project Manager (Architect or Engineer)	Project Engineer (RCE)	Project Architect (RA 1080)	Project Electrical Engineer (REE)
1. Name				
2. Address				
3. Date of Birth				
4. Employed Since				
5. Previous Employment				
6. Education				
7. PRC License/ Accreditation from DOLE-OHSC (for the Health and Safety Officer)/ DPWH Accreditation				
8. Years of Experience in Proposed Position				

Note: This List must be supported by individual resumes the following documents:

1. Individual resumes to show proof of the following:
 - a. That the proposed personnel meets the required relative experience
 - b. List of projects handles with the corresponding position and its inclusive years of experience (e.g. Construction of Drainage System, Project Manager, 2012 – 2017)
2. Photocopy of PRC Licenses / DOLE-OHSC / DPWH Accreditation.

Submitted by : _____
 (Printed Name & Signature of Authorized Representative)
 Designation : _____
 Date : _____

LIST OF KEY PERSONNEL PROPOSED TO BE ASSIGNED TO THE CONTRACT

“Annex E”

Business Name : _____
 Business Address : _____

	Project Mechanical Engineer (RME)	Sanitary Engineer (RA 1080)	Safety Officer (DOLE Accredited)	Construction Foreman
1. Name				
2. Address				
3. Date of Birth				
4. Employed Since				
5. Previous Employment				
6. Education				
7. PRC License/ Accreditation from DOLE-OHSC (for the Health and Safety Officer)				
8. Years of Experience in Proposed Position				

Note: This List must be supported by individual resumes of all personnel and photocopy of PRC Licenses of the Engineers.

1. Individual resumes to show proof of the following:
 - a. That the proposed personnel meets the required relative experience
 - b. List of projects handles with the corresponding position and its inclusive years of experience (e.g. Construction of Drainage System, Project Manager, 2012 – 2017)
2. Photocopy of PRC Licenses / DOLE-OHSC / DPWH Accreditation.

Submitted by : _____
 (Printed Name & Signature of Authorized Representative)
 Designation : _____
 Date : _____

LIST OF EQUIPMENT, OWNED OR LEASED AND/OR UNDER PURCHASE AGREEMENT, PLEDGED TO THE PROPOSED CONTRACT

Business Name : _____
 Business Address : _____

Description	Model/Year	Capacity/Performance/Size	Plate No.	Motor No./ Body No.	Location	Condition	Proof of Ownership/ Lessor/Vendor
A. Owned							
i.							
ii.							
iii.							
iv.							
v.							
B. Leased							
i.							
ii.							
iii.							
iv.							
v.							
C. Under Purchase Agreement							
i.							
ii.							
iii.							
iv.							
v.							

Note: This List must be supported by proof of ownership, lease and/or purchase agreement. For lease and purchase agreement, proof of ownership from the lessor or certification of availability of equipment from the vendor for the duration of the project.

Submitted by : _____
 (Printed Name & Signature of Authorized Representative)

Designation : _____

Date : _____

“Annex G”

STATEMENT OF SINGLE LARGEST COMPLETED CONTRACT SIMILAR TO THE CONTRACT TO BE BID

*(For this purpose, similar contracts shall refer to to General Building under **Building or Industrial Plant** with a contract amount of at least Nine Million Eighty Six Thousand Four Hundred Thirty Five Pesos and 8/100 (Php 9,086,435.08))*

Business Name : _____
 Business Address : _____

Name of Contract	a. Owner Name b. Address c. Telephone Nos.	Nature of Work	Contractor’s Role		a. Amount at Award b. Amount at Completion	a. Date Awarded b. Date Completed
			Description	%		
<u>Government</u>						
<u>Private</u>						

Note: This statement shall be supported by:

1. Any of the following (Notice of Award/ Contract /Notice to Proceed); and
2. Project Owner’s Certificate of Final Acceptance issued by the Owner other than the Contractor or the Constructors Performance Evaluation System (CPES) Final Rating (minimum Satisfactory Rating).

Submitted by : _____
(Printed Name & Signature of Authorized Representative)
 Designation : _____
 Date : _____

“Annex H”

STATEMENT OF ALL ONGOING GOVERNMENT & PRIVATE CONSTRUCTION CONTRACTS INCLUDING CONTRACTS AWARDED BUT NOT YET STARTED

Business Name : _____
 Business Address : _____

Name of Contract/Location Project Cost	a. Owner Name b. Address c. Telephone Nos.	Nature of Work	Contractor’s Role		a. Date Awarded b. Date Started c. Date of Completion	% of Accomplishment		Value of Outstanding Works
			Description	%		Planned	Actual	
<u>Government</u>								
<u>Private</u>								
Total Cost:								

Note: This statement shall be supported by:

1. State all ongoing contracts including those awarded but not yet started (government and private contracts which may be similar or not similar to the project called for bidding) as of:
The day before the deadline of submission of bids.
2. If there is no ongoing contract including awarded but not yet started as of the aforementioned period, state none or equivalent term.

Submitted by : _____
(Printed Name & Signature of Authorized Representative)
 Designation : _____
 Date : _____

Republic of the Philippines



Government Procurement Policy Board