

**PHILIPPINE
PORTS
AUTHORITY**



PORT MANAGEMENT OFFICE - MARINDUQUE/QUEZON
PORT OPERATION BUILDING, BRGY. TALAO-TALAO, PORT AREA, LUCENA CITY, PHILIPPINES

REPAIR/UPGRADING OF WATER AND ELECTRICAL SUPPLY SYSTEM

PORT OF LUCENA, LUCENA CITY

BID DOCUMENTS

(MRQ-R2021-05)

Instruction for Submission of Bids

Philippine Ports Authority
Port Management Office of Marinduque/Quezon
(PMO-Marquez)

BIDS AND AWARDS COMMITTEE FOR ENGINEERING PROJECTS

INSTRUCTIONS FOR SUBMISSION OF BIDS

Name of Project: **Repair/Upgrading of Water and Electrical Supply System,
Port of Lucena, Lucena City**

- I. Bidders shall submit to the Bids and Awards Committee, through the Secretariat, their Bids on or before the published deadline. Bids submitted/received after the published deadline shall be marked "LATE" and shall not be accepted.
- II. Bidders shall submit their bids using the forms specified in the Bidding Documents in **two (2) sealed envelopes**, and which shall be submitted simultaneously. (Section 25 of the 2016 revised IRR of RA 9184)
- III. The **First Envelope** shall contain the technical component of the bid including the eligibility requirements, or **Technical Bid** for short. The **Technical Bid** shall therefore be composed of two parts, as follows:
 - A) **Part A - Eligibility requirements.** Please refer to the Eligibility Statement Form for the eligibility requirements and instructions.
 - B) **Part B - Project requirements.** This shall contain the following documents:
 1. Bid Security
 2. Organizational chart for the contract to be bid
 3. List of contractor's key personnel with their complete qualification and experience data
 4. List of contractor's equipment units supported by certification of availability of equipment
 5. Omnibus Sworn Statement.
 6. Certificate of Site Inspection
 - The site inspection must be conducted by the Bidder's President/General Manager/Authorized Managing Officer or by the Project Manager or Project Engineer pledged/committed by the Bidder to the project to be bid.
 - For this project, the Certificate of Site Inspection shall be issued by **ENGR. RAUL A. LIBATIQUE, Acting ESD Manager, PMO-Marquez.**
- IV. The **Second Envelope** shall contain the financial component of the bid, or **Financial Bid** for short, and shall have the following documents:
 1. Bid proposal in the prescribed form
 2. Bid prices in the Bill of Quantities in the prescribed form
 3. Detailed estimates
 4. Summary sheet indicating the unit prices of construction materials, labor rates and equipment rental rates used in coming up with the bid.
 5. Cash flow by quarter and payment schedule
- V. Bidders shall submit their Bids using the Forms supplied in the Bidding Documents. Bidders shall read and properly accomplish all supplied forms without alterations to their

VI. Pages in the Technical Bid shall be paged as follows:

1. Part A - Eligibility requirements. The paging on the eligibility statements including attached documents thereto shall be A1, A2, A3 and so on.
2. Part B - Project requirements. The paging on the project requirements including attached documents thereto shall be B1, B2, B3 and so on.

VII. All pages of the Financial Bid including attached documents thereto shall be chronologically paged (1, 2, 3, and so on) and initialed/signed by the authorized signatory at the right bottom corner of each and every page.

By affixing the initial/signature at the right bottom corner of each and every page of the Technical Bid and Financial Bid, the authorized signatory acknowledges that he/she prepared the requirements/bid himself/herself or the same were prepared under his/her direct supervision.

VIII. Bidders shall use legal size bond paper in their Technical and Financial Bids, except original copies of documents from other agencies/entities that must be attached to the Technical and Financial Bids.

IX. The Technical and Financial Bids shall be provided with "cover" and "table of contents", samples of which are attached in Section VIII (Bidding Forms) of this Bidding Documents.

X. Bidders shall submit eight (8) sets (one original and 7 clear copies) each of the Technical Bid and Financial Bid. All sets/copies shall be properly book bound with hard cover. Screw-bound, ring-bound, combo-bound, fastener-bound or stapler-bound are not acceptable. Failure to comply with these requirements shall be ground for disqualification/failure of Bid.

1. The Technical Bid – The eligibility requirements (Part A) and the technical/project requirements (Part B) shall be consolidated into one properly bound book which shall be denominated as the "Technical Bid".

The original and seven (7) copies of the Technical Bid shall be placed in one (1) envelope (or properly wrapped together), duly sealed and marked as "Envelope No. 1 - Technical Bid".

2. The original and seven (7) copies of the Financial Bid shall be placed in another envelope (or properly wrapped together), duly sealed and marked as "Envelope No. 2 - Financial Bid".

3. The envelopes containing the Technical and Financial Bid shall then be placed in a single envelope (or properly wrapped together), duly sealed and with the following markings:

- a) Name of the Contract to be Bid
- b) Name and address of Bidder
- c) Name and address of Procuring Entity
- d) Shall bear the warning "DO NOT OPEN BEFORE (the scheduled time and date of the opening of bids)".

XI. Bidders or their duly authorized representatives are enjoined to attend the opening of the Bids, the date and time of which are indicated in the Invitation to Bid. Bidders' authorized representatives should present a written authority (from the concerned Bidder-Firm) to be allowed to attend the meetings/proceedings. Failure to present the written authority shall result to non-recognition of the bidders' representatives during BAC meetings/proceedings.

Section I. Invitation to Bid

INVITATION TO BID

The Philippine Ports Authority – Port Management Office of Marinduque/Quezon (PMO MarQuez), through its Bids and Awards Committee for Engineering Projects, invites contractors registered with and classified by the Philippine Contractors Accreditation Board (PCAB) to bid for the hereunder contract:

- A. Name of Contract : Repair/Upgrading of Water and Electrical Supply System
- B. Location : Port of Lucena, Lucena City
- C. Contract Identification/
Reference Number : MRQ-R2021-05
- D. Brief Description : The project involves the repair/upgrading of pump house (10m x 5m), cistern tank (8m x 3m) and water supply line (1,725 ln.m.), and electrical service entrance and supply line (310 ln.m.)
- E. Required Equipment (Owned/Leased):
- | | |
|--|------------------------------------|
| 2 units - jackhammer w/ compressor, 350cfm | 1 unit - bar cutter, 25mm dia max. |
| 2 units - concrete cutter, 7.5hp | 1 unit - bar bender, 25mm dia max. |
| 1 unit - plate compactor, 4.5hp | 1 unit - water truck, 1,000gal |
| 1 unit - concrete mixer, 1-bagger | 1 unit - 6-wheeler elf truck |
| 1 unit - concrete vibrator, 3.5hp | 1 unit - welding machine, 400amp |
- F. Approved Budget for the Contract (ABC): PHP 8,067,854.00
- G. Source of Fund: PPA Corporate Fund, CY 2021 PPA Budget
- H. Contract Duration: 150 calendar days
- I. Required PCAB Registration Particulars: At least “Small B” for Port, Harbor and Offshore Engineering

Only those contractors with PCAB Registration of at least “Small ‘B’ Port, Harbor and Offshore Engineering” will be issued Bidding Documents, and upon payment of non-refundable cost of the documents in the amount of Php 10,000.00. Interested contractors are required to present a certified copy of their PCAB license and registration when purchasing the Bidding Documents.

Prospective bidders should possess a valid PCAB license and registration particulars applicable to the type and cost of the contract to be bid, have key personnel and equipment available for the prosecution of the contract as listed in Item E above, and must have completed at least one (1) contract that is similar to the contract to be bid, and with the same major categories of work as the contract to be bid, and whose value is at least 50% of the approved budget for the contract to be bid, updated to current prices using the PSA consumer price indices. Prospective bidders must likewise meet the other eligibility, technical/project and financial requirements and other requirements stated in the Eligibility Statement Forms and the Bidding Documents.

Bidding will be conducted through open competitive bidding procedures using non-discretionary “pass/fail” criteria as specified in the 2016 Revised IRR of RA 9184, otherwise known as the “Government Procurement Reform Act.”

Bidding is restricted to Filipino citizens/sole proprietorships, partnerships, or organizations with at least 75% interest or outstanding capital stock belonging to citizens of the Philippines.

The schedule of procurement activities is as follows:

Procurement Activities	Schedule		
	Time	Date	Venue
1. Period of availability/issuance of Bidding Documents		August 6 to September 1, 2021	PMO MarQuez Conference Room, Port Operations Building, Brgy. Talao-Talao, Port Area., Lucena City
2. Pre-Bid Conference	9:00 AM	August 18, 2021	-do-
3. Deadline of submission and receipt of Bids	9:00 AM	September 1, 2021	-do-
4. Opening and Examination of Bids	10:30 AM	September 1, 2021	-do-

Bidders must submit their bids on the date, time and place specified in the above schedule. Late bids will not be accepted. All bids must be accompanied by a bid security in any of the forms and corresponding amount stated in the Bidding Documents. Bids received in excess of the ABC shall be automatically rejected at bid opening.

The Philippine Ports Authority – PMO MarQuez 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 revised IRR, without thereby incurring any liability to the affected bidder or bidders. The Philippine Ports Authority- PMO MarQuez assumes no responsibility whatsoever to compensate or indemnify the bidders of any expenses incurred in the preparation of their bids.

For further information, please call or contact Mr. Israel R. Cambi, Secretariat Head, at telephone no. (042) 785-1250 or visit the Philippine Ports Authority – PMO MarQuez at Port Operations Building, Brgy. Talao-Talao, Port Area, Lucena City.

SHERWIN LEMUEL A. CHAVEZ
BAC Chairperson

Period of Posting in the PhilGEPS & PPA websites and PMO MarQuez bulletin board: August 6 – 12, 2021

Section II. Instruction to Bidders

TABLE OF CONTENTS

A. GENERAL	1
1. Scope of Bid.....	1
2. Source of Funds	1
3. Corrupt, Fraudulent, Collusive, and Coercive Practices.....	1
4. Conflict of Interest	2
5. Eligible Bidders	3
6. Bidder's Responsibilities	4
7. Origin of GOODS and Services.....	5
8. Subcontracts.....	5
B. CONTENTS OF BIDDING DOCUMENTS	6
9. Pre-Bid Conference.....	6
10. Clarification and Amendment of Bidding Documents	6
C. PREPARATION OF BIDS	6
11. Language of Bids	6
12. Documents Comprising the Bid: Eligibility and Technical Components.....	7
13. Documents Comprising the Bid: Financial Component	8
14. Alternative Bids	9
15. Bid Prices	9
16. Bid Currencies	9
17. Bid Validity.....	10
18. Bid Security	10
19. Format and Signing of Bids	11
20. Sealing and Marking of Bids	11
D. SUBMISSION AND OPENING OF BIDS	12
21. Deadline for Submission of Bids	12
22. Late Bids	12
23. Modification and Withdrawal of Bids	12
24. Opening and Preliminary Examination of Bids.....	13
E. EVALUATION AND COMPARISON OF BIDS	14
25. Process to be Confidential	14
26. Clarification of Bids.....	14
27. Detailed Evaluation and Comparison of Bids.....	14
28. Post Qualification.....	15
29. Reservation Clause.....	16
F. AWARD OF CONTRACT	17
30. Contract Award	17

A. General

1. Scope of Bid

- 1.1. The Procuring Entity as defined in the **BDS**, invites bids for the construction of Works, as described in VI. Specifications. The name and identification number of the Contract is provided in the **BDS**.
- 1.2. The successful bidder will be expected to complete the Works by the intended completion date specified in SCC Clause 1.16.

2. Source of Funds

The Procuring Entity has a budget or has applied for 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, and Coercive Practices

- 3.1. 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;

(b) will reject a proposal for award if it determines that the bidder

- (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 for, or in executing, a Contract funded by the Funding Source.
- 3.2. Further, the Procuring Entity will seek to impose the maximum civil, administrative, and/or criminal penalties available under the applicable laws on individuals and organizations deemed to be involved in any of the practices mentioned in ITB Clause 3.1(a).
- 3.3. Furthermore, the Funding Source and the Procuring Entity reserve the right to inspect and audit records and accounts of a contractor in the bidding for and performance of a contract themselves or through independent auditors as reflected in the GCC Clause 34.

4. Conflict of Interest

- 4.1. All bidders found to have conflicting interests shall be disqualified to participate in the procurement at hand, without prejudice to the imposition of appropriate administrative, civil, and criminal sanctions. A Bidder may be considered to have conflicting interests with another Bidder in any of the events described in paragraphs (a) through (c) and a general conflict of interest in any of the circumstances set out in paragraphs (d) through (g) below:
- (a) A Bidder has controlling shareholders in common with another Bidder;
 - (b) A Bidder receives or has received any direct or indirect subsidy from any other Bidder;
 - (c) A Bidder has the same legal representative as that of another Bidder for purposes of this Bid;
 - (d) A Bidder has a relationship, directly or through third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder or influence the decisions of the Procuring Entity regarding this bidding process. This will include a firm or an organization 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;
 - (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 temporary seconds, its personnel to firms or organizations which are engaged in consulting services for the preparation related to procurement for or implementation of the project, if the personnel would be involved in any capacity on the same project.
- 4.2. In accordance with Section 47 of the IRR of RA 9184, all Bidding Documents shall be accompanied by a sworn affidavit of the Bidder that it is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee

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; and
- (d) If the Bidder is a joint venture (JV), the provisions of items (a), (b), or (c) 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, and of which at least seventy five percent (75%) of the interest belongs to citizens of the Philippines; and
- (e) Persons/entities forming themselves into a JV, i.e., a group of two (2) or more persons/entities that intend to be jointly and severally responsible or liable for a particular contract: Provided, however, that, in accordance with Letter of Instructions No. 630, Filipino ownership or interest of the joint venture concerned shall be at least seventy five percent (75%): Provided, further, that joint ventures in which Filipino ownership or interest is less than seventy five percent (75%) may be eligible where the structures to be built require the application of techniques and/or technologies which are not adequately possessed by a person/entity meeting the seventy five percent (75%) Filipino ownership requirement: Provided, finally, that in the latter case, Filipino ownership or interest shall not be less than twenty five percent (25%). For this purpose Filipino ownership or interest shall be based on the contributions of each of the members of the joint venture as specified in their JVA.

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

5.3. Government Corporate Entities may be eligible to participate only if they can establish that they (a) are legally and financially autonomous, (b) operate under

- 5.4. Unless otherwise provided in the **BDS**, the Bidder must have completed at least one contract similar to the Project the value of which, adjusted to current prices using the National Statistics Office consumer price index, must be at least equivalent to a percentage of the ABC stated in the **BDS**.

For this purpose, contracts similar to the Project shall be those described in the **BDS**, and completed within the period stated in the Invitation to Bid and **ITB** Clause 12.1(a)(iii).

- 5.5. Unless otherwise provided in the **BDS**, the Bidder must submit a computation of its Net Financial Contracting Capacity (NFCC) or a Commitment from a Universal or Commercial bank to extend a credit line in its favor if awarded the contract for this project (CLC).

The NFCC, computed using the following formula, must be at least equal to the ABC to be bid:

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 value of the Bidder's current asset and current liabilities shall be based on the data submitted to the BIR through its Electronic Filing and Payment System (EFRPS). [GPPB Resolution No. 20-2013 and GPPB Circular 02-2014].

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; and
 - (d) Having complied with its responsibility to inquire or secure Supplemental/Bid Bulletin/s as provided under **ITB** Clause 10.3.
 - (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 Head of the Procuring Entity or its duly authorized representative/s to verify all the documents submitted;
 - (h) Ensuring that the signatory is the duly authorized representative of the

with the duly notarized Secretary's Certificate attesting to such fact, if the Bidder is a corporation, partnership, cooperative, or joint venture;

- (i) Complying with the disclosure provision under Section 47 of the Act in relation to other provisions of Republic Act 3019; and
- (j) Complying with existing labor laws and standards, if applicable.

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 and determined the general characteristics of the contract works and the conditions for this Project. Unless otherwise indicated in the **BDS**, failure to furnish all information or documentation required in this Bidding Documents shall result in the rejection of the bid and the disqualification of the Bidder.
- 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; (d) 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 (e) 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.
- 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. Bidders should note that the Procuring Entity will only accept bids only from those that have paid the nonrefundable fee for the Bidding Documents at the office indicated in the Invitation to Bid.

7. Origin of GOODS and Services

Unless otherwise indicated in the **BDS**, 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

- 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. 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.
- 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 discussed during the pre-bid conference.
- 9.3. Any statement made at the pre-bid conference shall not modify the terms of the bidding documents unless such statement is specifically identified in writing as an amendment thereto and issued as a Supplemental/Bid Bulletin.

10. Clarification and Amendment of Bidding Documents

- 10.1. Bidders who have purchased the Bidding Documents may request for clarification(s) on any part of the Bidding Documents or for an interpretation. 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. Supplemental/Bid Bulletins may 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.
- 10.3. Any Supplemental/Bid Bulletin issued by the BAC shall also be posted on the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity concerned, if available. It shall be the responsibility of all Bidders who secure 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 Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Procuring Entity, shall be written in English. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation in English certified by the appropriate

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) Registration certificate from the Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives, or any proof of such registration as stated in the **BDS**;
- (ii) Mayor's permit issued by the city or municipality where the principal place of business of the prospective bidder is located;
- (iii) Statement of all its ongoing and completed government and private contracts within ten (10) years from the submission of bids, unless otherwise stated in the **BDS**, including contracts awarded but not yet started, if any. The statement shall include, for each contract, the following:
 - (iii.1) name of the contract;
 - (iii.2) date of the contract;
 - (iii.3) contract duration;
 - (iii.4) owner's name and address;
 - (iii.5) nature of work;
 - (iii.6) contractor's role (whether sole contractor, subcontractor, or partner in a JV) and percentage of participation;
 - (iii.7) total contract value at award;
 - (iii.8) date of completion or estimated completion time;
 - (iii.9) total contract value at completion, if applicable;
 - (iii.10) percentages of planned and actual accomplishments, if applicable;
 - (iii.11) value of outstanding works, if applicable;
 - (iii.12) the statement shall be supported by the notices of award and/or notices to proceed issued by the owners; and
 - (iii.13) the statement shall be supported by the Constructors Performance Evaluation System (CPES) rating sheets, and/or certificates of completion and owner's acceptance, if applicable;
- (iv) Unless otherwise provided in the **BDS**, valid Philippine Contractors Accreditation Board (PCAB) license and registration

“received” by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission;

- (vi) NFCC computation or CLC in accordance with ITB Clause 5.5; and

Class "B" Document:

- (vii) If applicable, valid Joint Venture Agreement (JVA) or, in lieu thereof, duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful shall be included in the bid.

(b) Technical Documents –

- (i) Bid security as prescribed in 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 an authorized Insurance Commission that a surety or insurance company is authorized to issue such instrument;
- (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 (*viz.*, project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data; and
 - (ii.3) List of contractor’s equipment units, which are owned, leased, and/or under purchase agreements, supported by certification of availability of equipment from the equipment lessor/vendor for the duration of the project; and
- (iii) Sworn statement in accordance with Section 25.2(b)(iv) 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 in accordance with the form prescribed in Section IX. Bidding Forms; and
- (b) Any other document required in the **BDS**.

13.2. Unless indicated in the **BDS**, all Bids that exceed the ABC shall not be accepted.

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 "0" (zero) for the said item would mean that it is being offered for free to the Government.
- 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. Unless otherwise provided in the **BDS**, 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 indicated in the **BDS** and specified in GCC Clause 48 and its corresponding SCC provision.

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 BSP reference rate bulletin on the day of the bid opening.

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 procuring entity shall prescribe in the BDS the acceptable forms of bid security that bidders may opt to use, which shall include the Bid Securing Declaration or any other form, the amount of which shall be equal to a percentage of the ABC in accordance with the following schedule:

Form of Bid Security	Amount of Bid Security (Equal to Percentage of the ABC)
(a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank.	Two percent (2%)
(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.	
(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	Five percent (5%)

For biddings conducted by local government units, the Bidder may also submit bid securities in the form of cashier's/manager's check, bank draft/guarantee, or irrevocable letter of credit from other banks certified by the BSP as authorized to issue such financial statement.

- 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 motion for reconsideration and/or protest. Without prejudice on its forfeiture, Bid Securities shall be returned only after the bidder with the Lowest Calculated Responsive Bid has signed the contract and furnished the Performance Security, but in no case later

- 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) fails to submit the requirements within the prescribed period, or a finding against their veracity, as stated in **ITB** Clause 28.2; or
 - (iv) any other reason stated in the **BDS**.
 - (b) if the successful Bidder:
 - (i) fails to sign the contract in accordance with **ITB** Clause 31;
 - (ii) fails to furnish performance security in accordance with **ITB** Clause 32; or
 - (iii) any other reason stated in the **BDS**.

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 EX. 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.
- 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 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. 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. Unless otherwise indicated in the **BDS**, 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"

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 indelible 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 identified in **ITB** Clause 10.1;
 - (d) bear the specific identification of this bidding process indicated in the Invitation to Bid; 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. If bids are not sealed and marked as required, the Procuring Entity will assume no responsibility for the misplacement or premature opening of the bid. Moreover, failure to comply with the required sealing and marking of bids shall be a ground for disqualification.

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.

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, properly identified, 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.

23.3. Bids requested to be withdrawn in accordance with **ITB** Clause 23.1 shall be

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 first bid envelopes of Bidders in public as specified in the **BDS** to determine each Bidder's compliance with the documents prescribed in ITB Clause 12. For this purpose, the BAC shall check the submitted documents of each bidder against a checklist of required documents to ascertain if they are all present, 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".
- 24.2. 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.
- 24.3. 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. If the withdrawing Bidder's representative is in attendance, the original bid and all copies thereof shall be returned to the representative during the bid opening. If the representative is not in attendance, the Bid shall be returned unopened by registered mail. The Bidder may withdraw its bid prior to the deadline for the submission and receipt of bids, provided that the corresponding letter of withdrawal contains a valid authorization requesting for such withdrawal, subject to appropriate administrative sanctions.
- 24.4. If a Bidder has previously secured a certification from the Procuring Entity to the effect that it has previously submitted the above-enumerated Class "A" Documents, the said certification may be submitted in lieu of the requirements enumerated in ITB Clause 12.1(a), items (i) to (vi).
- 24.5. In the case of an eligible foreign Bidder as described in ITB Clause 5, the Class "A" Documents enumerated in ITB Clause 12.1(a) may be substituted with the appropriate equivalent documents, if any, issued by the country of the foreign Bidder concerned.

- 24.6. Each partner of a joint venture agreement shall likewise submit the documents

- 24.7. A Bidder determined as "failed" has three (3) calendar days upon written notice or, if present at the time of bid opening, upon verbal notification within which to file a request for reconsideration with the BAC: Provided, however, that the request for reconsideration shall not be granted if it is established that the finding of failure is due to the fault of the Bidder concerned: Provided, further, that the BAC shall decide on the request for reconsideration within seven (7) calendar days from receipt thereof. If a failed Bidder signifies his intent to file a request for reconsideration, the BAC shall keep the bid envelopes of the said failed Bidder unopened and/or duly sealed until such time that the request for reconsideration or protest has been resolved.

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 **BDS** or 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. In evaluating the Bids to get the Lowest Calculated Bid, the Procuring Entity shall undertake the following:
- (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. Unless otherwise specified in the **BDS**, the BAC shall consider the following in the evaluation of bids:
- (a) Completeness of the bid. Unless the ITB specifically allows partial bids,

regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a "0" (zero) for the said item would mean that it is being offered for free to the Procuring Entity; and

- (b) Arithmetical corrections. Consider computational errors, omissions, and other bid modifications, if allowed in the **BDS**, to enable proper comparison of all eligible bids. 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.
- 27.5. Unless otherwise indicated in the **BDS**, the Procuring Entity's evaluation of bids shall only be based on the bid price quoted in the Financial Bid Form
- 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.

28. Post Qualification

- 28.1. The Procuring Entity shall determine to its satisfaction whether the Bidder that is evaluated as having submitted the Lowest Calculated Bid (LCB) 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 three (3) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the LCB, the Bidder shall submit the following documentary requirements:
 - (a) Latest income and business tax returns in the form specified in the **BDS**;
 - (b) Certificate of PhilGEPS Registration; and
 - (c) Other appropriate licenses and permits required by law and stated in the **BDS**.

Failure of the Bidder declared as LCB to duly submit the requirements under this Clause or a finding against the veracity of such, shall be ground for forfeiture of the bid security and disqualification of the Bidder for award.

- 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.
- 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 Lowest Calculated Responsive Bid, and recommend to the Head of the Procuring Entity

- 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 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 Lowest Calculated and Responsive Bid is determined for contract award.
- 28.6. Within a period not exceeding seven (7) calendar days from the date of receipt of the recommendation of the BAC, the Head of the Procuring Entity shall approve or disapprove the said recommendation. In the case of government owned and government-owned and/or -controlled corporations (GOCCs) and government financial institutions (GFIs), the period provided herein shall be fifteen (15) calendar days.

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 Government as follows:
 - (i) If the physical and economic conditions have significantly changed so as to render the project no longer economically, financially or technically feasible as determined by the head of the procuring entity;
 - (ii) If the project is no longer necessary as determined by the head of the procuring entity; and
 - (iii) If the source of funds for the project has been withheld or reduced

- 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 or fail post-qualification; or
 - (d) The bidder with the Lowest Calculated Responsive Bid refuses, without justifiable cause to accept the award of contract, and no award is made.

F. Award of Contract.

30. Contract Award

- 30.1. Subject to ITB Clause 28, the Procuring Entity shall award the contract to the Bidder whose Bid has been determined to be the Lowest Calculated and Responsive Bid (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 received personally or sent by registered mail or electronically, receipt of which must be confirmed in writing within two (2) days by 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 the prescribed period from receipt by the Bidder of the notice that it has the Lowest Calculated and Responsive Bid:
 - (i) Valid JVA, if applicable, within ten (10) calendar days;
 - (ii) Valid PCAB license and registration for the type and cost of the contract to be bid for foreign bidders, within thirty (30) calendar days, if allowed under a Treaty or International or Executive Agreement mentioned in ITB Clause 12.1(a)(iv);
 - (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.

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.

31.3. 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;
- (d) Performance Security;
- (e) Credit line in accordance with ITB Clause 5.5, if applicable;
- (f) Notice of Award of Contract; and
- (g) 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 equal to the percentage of the total contract price in accordance with the following schedule:

Form of Performance Security	Amount of Performance Security (Equal to Percentage of the Total Contract Price)
(a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank.	Five percent (5%)
(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.	
(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	Thirty percent (30%)

32.3. Failure of the successful Bidder to comply with the above-mentioned requirement shall constitute sufficient ground for the annulment of the award and forfeiture of the bid security, in which event the Procuring Entity shall initiate and complete

BAC shall declare the bidding a failure and conduct a re-bidding with re-advertisement.

33. Notice to Proceed

- 33.1. Within three (3) calendar days from the date of approval of the Contract by the appropriate government approving authority, the Procuring Entity shall issue its Notice to Proceed to the Bidder.
- 33.2. The date of the Bidder's receipt of the Notice to Proceed will be regarded as the effective date of the Contract, unless otherwise specified in the **BDS**.

Section III. Bid Data Sheet

Bid Data Sheet

ITB Clause	
1.1	<p>The PROCURING ENTITY is Philippine Ports Authority – Port Management Office of Marinduque/Quezon</p> <p>The name of the Contract is <u>Repair/Upgrading of Water and Electrical Supply System, Port of Lucena, Lucena City</u></p> <p>The identification number of the Contract is MRQ-R2021-05.</p>
2	<p>The Funding Source is:</p> <p>The Government of the Philippines (GOP) through the PPA Corporate Funds, Budget Year 2021 in the amount of ₱8,148,532.54.</p> <p>The name of the Project is <u>Repair/Upgrading of Water and Electrical Supply System, Port of Lucena, Lucena City</u></p>
5.1	No further instructions.
5.2	Bidding is restricted to eligible bidders as defined in ITB Clause 5.1
5.4	<p>The Bidder must have completed, within ten (10) years from the submission of bids, a single contract that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC.</p> <p>For this purpose, similar contracts shall refer to refer to the contract to be bid if it has the same major categories of work.</p>
5.5	No further instructions.
6.3	No further instructions.
7	No further instructions.
8.1	Subcontracting is not allowed.
8.2	Not applicable
9.1	The Procuring Entity will hold a pre-bid conference for this Project on the date stated in the Invitation to Bid.
10.1	<p>The Procuring Entity's address is:</p> <p>Philippine Ports Authority-PMO Marinduque/Quezon Port Operation Building Brgy. Talao-talao, Port Area, Lucena City 4301 Philippines</p> <p>SHERWIN LEMUEL A. CHAVEZ BAC Chairperson e-mail: pmomarquez.esd2018@gmail.com</p>

12.1	The first envelope shall contain the eligibility and technical documents stated in the ITB Clause. However, if the Bidder maintains a current and updated file of its Class "A" Documents with the Procuring Entity, a certification to that effect issued by its BAC may be submitted in lieu of the Class "A" Documents.
12.1(a)(i)	No other acceptable proof of registration is recognized.
12.1(a)(iii)	No further instructions.
12.1(a)(iv)	No further instructions.
13.1	"No additional Requirements"
13.2	The ABC is ₱ 8,067,854.00, Any bid with a financial component exceeding this amount shall not be accepted.
14.2	"No further instructions."
15.4	Bid Prices shall be fixed. Adjustable price proposals shall be treated as non-responsive and shall be rejected.
16.1	The bid prices shall be quoted in Philippine Pesos.
16.3	No further instructions.
17.1	Bids will be valid until One Hundred Fifty Calendar Days (150 c.d.) from the date of the opening of bids.
18.1	No further instructions.
18.2	The bid security shall be valid for One Hundred Twenty (120) c.d. reckoned from the date of the opening of bids as indicated in the Invitation to Bid.
18.5(a)(iv)	The following shall be the additional grounds for forfeiture of the bid security: <ol style="list-style-type: none"> 1. Submission of eligibility requirements containing false information or falsified documents. 2. 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. 3. Allowing the use of one's name, or using the name of another for purposes of public bidding. 4. 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 Lowest

	<p>Calculated and Responsive Bid.</p> <ol style="list-style-type: none"> 5. Refusal or failure to post the required performance security within the prescribed time. 6. 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. 7. Any documented unsolicited attempt by a bidder to unduly influence the outcome of the bidding in his favor. 8. Failure of the potential joint venture partners to enter into the joint venture after the bid is declared as successful. 9. 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.
18.5(b)(iii)	No further instructions.
20.1	No further instructions.
20.3	Each Bidder shall submit One (1) original and Seven (7) copies of each of the first and second components of its bid.
21	<p>The address for submission of bids is as indicated in the Invitation to Bid.</p> <p>The deadline for submission of bids is as indicated in the Invitation to Bid.</p>
24.1	<p>The place of bid opening is as indicated in the Invitation to Bid.</p> <p>The date and time of bid opening is as indicated in the Invitation to Bid</p>
25.1	No further instructions.
27.3	No further instructions.
27.3(b)	Bid modification is allowed to determine the bid price as calculated.
27.5	No further instructions.
28.2(b)	<p>Only tax returns filed and taxes paid through the BIR Electronic Filing and Payment System (EFPS) shall be accepted.</p> <p>The latest income and business tax returns are those within the last six months preceding the date of bid submission.</p>
28.2(d)	No further instruction.
31.4(g)	Other appropriate licenses and permits required by law and stated in the Bidding Documents:

	<ul style="list-style-type: none"> (a) Tax Clearance (b) Latest Income Tax and Business Tax Returns (c) Certificate of PhilGEPS Registration (d) Construction Schedule, S-Curve, PERT/CPM Network Diagram (e) Manpower Schedule (f) Equipment Utilization Schedule (g) Construction Method in narrative form (h) Construction Safety and Health Program duly received by DOLE
33.2	The effective date of the Contract is upon receipt by the Bidder of the Notice to Proceed.

Section IV. General Conditions of Contract

TABLE OF CONTENTS

1. DEFINITIONS.....	1
2. INTERPRETATION.....	3
3. GOVERNING LANGUAGE AND LAW.....	3
4. COMMUNICATIONS.....	3
5. POSSESSION OF SITE.....	3
6. THE CONTRACTOR'S OBLIGATIONS.....	3
7. PERFORMANCE SECURITY.....	4
8. SUBCONTRACTING.....	5
9. LIQUIDATED DAMAGES.....	5
10. SITE INVESTIGATION REPORTS.....	6
11. THE PROCURING ENTITY, LICENSES AND PERMITS.....	6
12. CONTRACTOR'S RISK AND WARRANTY SECURITY.....	6
13. LIABILITY OF THE CONTRACTOR.....	8
14. PROCURING ENTITY'S RISK.....	8
15. INSURANCE.....	8
16. TERMINATION FOR DEFAULT OF CONTRACTOR.....	9
17. TERMINATION FOR DEFAULT OF PROCURING ENTITY.....	10
18. TERMINATION FOR OTHER CAUSES.....	10
19. PROCEDURES FOR TERMINATION OF CONTRACTS.....	11
20. FORCE MAJEURE, RELEASE FROM PERFORMANCE.....	13
21. RESOLUTION OF DISPUTES.....	14
22. SUSPENSION OF LOAN, CREDIT, GRANT, OR APPROPRIATION.....	14
23. PROCURING ENTITY'S REPRESENTATIVE'S DECISIONS.....	15
24. APPROVAL OF DRAWINGS AND TEMPORARY WORKS BY THE PROCURING ENTITY'S REPRESENTATIVE.....	15
25. ACCELERATION AND DELAYS ORDERED BY THE PROCURING ENTITY'S REPRESENTATIVE.....	15
26. EXTENSION OF THE INTENDED COMPLETION DATE.....	15
27. RIGHT TO VARY.....	16
28. CONTRACTORS RIGHT TO CLAIM.....	16
29. DAYWORKS.....	16
30. EARLY WARNING.....	16

31. PROGRAM OF WORK.....	17
32. MANAGEMENT CONFERENCES	17
33. BILL OF QUANTITIES	17
34. INSTRUCTIONS, INSPECTIONS AND AUDITS	18
35. IDENTIFYING DEFECTS	18
36. COST OF REPAIRS	18
37. CORRECTION OF DEFECTS	18
38. UNCORRECTED DEFECTS.....	19
39. PROGRESS PAYMENTS	19
40. PAYMENT CERTIFICATES	19
41. RETENTION	20
42. VARIATION ORDERS	20
43. CONTRACT COMPLETION.....	22
44. SUSPENSION OF WORK.....	22
45. PAYMENT ON TERMINATION	23
46. EXTENSION OF CONTRACT TIME	23
47. PRICE ADJUSTMENT	24
48. COMPLETION	24
49. TAKING OVER.....	24
50. OPERATING AND MAINTENANCE MANUALS	24

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 48.
- 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 Price** is the price stated in the Letter of Acceptance and thereafter to be paid by the Procuring Entity to the Contractor for the execution of the Works in accordance with this Contract.
- 1.6. **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.
- 1.7. 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.
- 1.8. The **Contractor's Bid** is the signed offer or proposal submitted by the Contractor to the Procuring Entity in response to the Bidding Documents.
- 1.9. **Days** are calendar days; months are calendar months.
- 1.10. **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.
- 1.11. A **Defect** is any part of the Works not completed in accordance with the Contract.
- 1.12. The **Defects Liability Certificate** is the certificate issued by Procuring Entity's Representative upon correction of defects by the Contractor.
- 1.13. The **Defects Liability Period** is the one year period between project 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.
- 1.14. **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.
- 1.15. **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.
- 1.16. 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. 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.
- 1.19. **Permanent Works** 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.
- 1.20. **Plant** refers to the machinery, apparatus, and the like intended to form an integral part of the Permanent Works.
- 1.21. The **Procuring Entity** is the party who employs the Contractor to carry out the Works stated in the **SCC**.
- 1.22. 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.
- 1.23. 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.
- 1.24. **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.
- 1.25. **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.
- 1.26. **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.
- 1.27. 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.
- 1.28. A **Subcontractor** is any person or organization to whom a part of the Works has been subcontracted by the Contractor, as allowed by the Procuring Entity, but not any assignee of such person.
- 1.29. **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Permanent Works.
- 1.30. **Work(s)** refer to the Permanent Works and Temporary Works to be executed by the Contractor in accordance with this Contract, including (i) the furnishing of all labor, materials, equipment and others incidental, necessary or convenient to the complete execution of the Works; (ii) the passing of any tests before acceptance by the Procuring Entity's Representative; (iii) and the carrying out of all duties and obligations of the Contractor imposed by this Contract as described in the **SCC**.

2. Interpretation

- 2.1. In interpreting the Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of this Contract unless specifically defined. The Procuring Entity's Representative will provide instructions clarifying queries about the Conditions of Contract.
- 2.2. If sectional completion is specified in the SCC, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

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 46.
- 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

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. Unless otherwise specified in the SCC, 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 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.

- 7.4. 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. 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 ITB 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. Subcontractors disclosed and identified during the bidding may be changed during the implementation of this Contract, subject to compliance with the required qualifications and the approval of the Procuring Entity.

9. Liquidated Damages

- 9.1. The Contractor shall pay liquidated damages to the Procuring Entity at the rate per day stated in the SCC for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the SCC. The Procuring Entity may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor. Once the cumulative amount of

- 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. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC Clause 39.1.

10. Site Investigation Reports

- 10.1. The Contractor, in preparing the Bid, shall conduct site inspection and investigation in order to determine the actual condition of project site. The Contractor may also inquire from the Procuring Entity site investigation report, if any.
- 10.2. The site inspection and investigation shall be conducted by the Contractor (President/General Manager/Authorized Managing Officer) or by the Project Manager or Project Engineer pledged/committed by the Contractor to the project to be bid.
- 10.3. The Certificate of Site Inspection shall be issued by the PPA Terminal Head (for PPA-manned ports) or by the Barangay Chairperson of the barangay/locality where the project is located (for unmanned ports).

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 project 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 Head of the Procuring Entity 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. 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,

- (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	Minimum Amount in 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	

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.

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 39 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:
- 16.2. 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;
- 16.3. 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

16.4. The Contractor:

- (a) 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;
- (b) 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;
- (c) does not execute the Works in accordance with this Contract or persistently or flagrantly neglects to carry out its obligations under this Contract;
- (d) neglects or refuses to remove materials or to perform a new Work that has been rejected as defective or unsuitable; or
- (e) sub-lets any part of this Contract without approval by the Procuring Entity.

16.5. All materials on the Site, Plant, Equipment, and Works 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

- 17.1. 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 Head of the Procuring Entity 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

- (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 and coercive practices as defined in ITB Clause 3.1(a);
 - (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:

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 Implementing Unit, the Head of the Procuring Entity 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 Head of the Procuring Entity a verified position paper stating why the contract should not be terminated. If the Contractor fails to show cause after the lapse of the seven (7) day period, either by inaction or by default, the Head of the Procuring Entity shall issue an order terminating the contract;
- (d) The Procuring Entity may, at anytime before receipt of the Bidder's verified position paper to 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 Head of the Procuring Entity 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 Head of the Procuring Entity 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 Head of the Procuring Entity.

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

- (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 constructor 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.

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 Arbitrator 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-A: *Provided, further*, That, by mutual agreement, the parties may agree in writing to resort to other alternative modes of dispute resolution. Additional instructions on resolution of disputes, if any, shall be indicated in the SCC.

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:

- (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 SCC Clause 44.2.

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's
- 23.2. The Procuring Entity's Representative may delegate any of his duties and responsibilities to other people, except to the Arbitrator, 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. Unless specified in the SCC, 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

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 Head of the Procuring Entity.

28. Contractors 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 42 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 accordance with 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; and if allowed, any Compensation Event.
- 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%)

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 begins at Completion Date up to final acceptance by the Procuring Entity's unless otherwise specified in the SCC. The Defects Liability Period shall be extended for as long as defects remain to be corrected.
- 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

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. Progress Payments

- 39.1. 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.
- 39.2. 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.
- 39.3. 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. Unless otherwise indicated in the SCC, no payment of interest for delayed payments and adjustments shall be made by the Procuring Entity.
- 39.4. 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.
- 39.5. 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.

40. Payment Certificates

- 40.1. 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.
- 40.2. The Procuring Entity's Representative shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
- 40.3. The value of Work executed shall:

- (b) comprise the value of the quantities of the items in the Bill of Quantities completed; and
- (c) include the valuations of approved variations.

40.4. 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.

41. Retention

- 41.1. 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 SCC Clause 41.2.
- 41.2. Progress payments are subject to retention of ten percent (10%), unless otherwise specified in the SCC, 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.
- 41.3. The total "retention money" shall be due for release upon final acceptance of the Works. The Contractor may, however, request the substitution of the retention money for each progress billing with irrevocable standby letters of credit from a commercial bank, bank guarantees or surety bonds callable on demand, of amounts equivalent to the retention money substituted for and acceptable to the Procuring Entity, provided that the project is on schedule and is satisfactorily undertaken. Otherwise, the ten (10%) percent retention shall be made. Said irrevocable standby letters of credit, bank guarantees and/or surety bonds, to be posted in favor of the Government shall be valid for a duration to be determined by the concerned implementing office/agency or Procuring Entity and will answer for the purpose for which the ten (10%) percent retention is intended, *i.e.*, to cover uncorrected discovered defects and third party liabilities.
- 41.4. 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.

42. Variation Orders

- 42.1. 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.

- 42.3. An Extra Work Order may be issued by the implementing official 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.
- 42.4. 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 Head of the Procuring Entity 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%).
- 42.5. 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 Head of the Procuring Entity for approval.
 - (b) The Head of the Procuring Entity or his duly authorized representative, upon receipt of the proposed Change Order or Extra Work Order shall immediately instruct the technical staff of the Procuring Entity's to conduct an on-the-spot investigation to verify the need for the Work to be prosecuted. A report of such verification shall be submitted directly to the Head of the Procuring Entity or his duly authorized representative.
 - (c) The, Head of the Procuring Entity or his duly authorized representative, after being satisfied that such Change Order or Extra Work Order is justified and necessary, shall review the estimated quantities and prices and forward the proposal with the supporting documentation to the Head of Procuring Entity for consideration.
 - (d) If, after review of the plans, quantities and estimated unit cost of the items of work involved, the proper office of the procuring entity empowered to review and evaluate Change Orders or Extra Work Orders recommends approval thereof, Head of the Procuring Entity or his duly authorized representative, believing the Change Order or Extra Work Order to be in

- (e) The timeframe for the processing of Variation Orders from the preparation up to the approval by the Head of the Procuring Entity concerned shall not exceed thirty (30) calendar days.

43. 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.

44. Suspension of Work

- 44.1. 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.
- 44.2. 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.
- 44.3. 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 effective order of suspending operation and the order to resume work shall be allowed the Contractor by adjusting the contract time accordingly.

45. Payment on Termination

- 45.1. 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.
- 45.2. 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.
- 45.3. The net balance due shall be paid or repaid within twenty eight (28) days from the notice of termination.
- 45.4. 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.

46. Extension of Contract Time

- 46.1. 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.
- 46.2. 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.
- 46.3. Extension of contract time may be granted only when the affected activities fall within the critical path of the PERT/CPM network.
- 46.4. 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.
- 46.5. 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

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 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 Head of the Procuring Entity. 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.

47. Price Adjustment

Except for extraordinary circumstances as determined by NEDA and approved by the GPPB, no price adjustment shall be allowed unless otherwise specified in the SCC.

48. 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.

49. 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.

50. Operating and Maintenance Manuals

- 50.1. If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the SCC.
- 50.2. 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	
1.16	The Intended Completion Date is within <i>One Hundred Fifty Calendar Days (150 c.d.)</i> starting from the effectivity of the contract.
1.21	The Procuring Entity is <i>Philippine Ports Authority- Port Management Office of Marinduque/Quezon, Port Operation Building Brgy. Talao-talao, Port Area, Lucena City 4301 Philippines</i>
1.22	The Procuring Entity's Representative is: <i>Engr. Raul A. Libatique, Acting ESD Manager Port Management Office of Marinduque/Quezon, Port Operation Building Brgy. Talao-talao, Port Area, Lucena City 4301 Philippines</i>
1.23	The Site is located at <i>Port of Lucena, Lucena City</i> and is defined in the plans/drawings (vicinity map).
1.27	The Start Date shall be commence at the time of receipt of the Notice to Proceed by the Contractor.
1.30	The Works involves the <i>The project involves the repair/upgrading of pump house (8m x 3m) and water supply line (1,725 ln.m.), and electrical service entrance and supply line (310 ln.m.)</i>
2.2	Not applicable.
5.1	The Procuring Entity shall give possession of all parts of the Site to the Contractor upon effectivity of the Contract or upon receipt of the Notice to Proceed by the Contractor.
6.5	The Contractor shall employ the following Key Personnel : <i>1. Project Manager 2. Project Engineer 3. Materials Engineer 4. Foreman 5. Const. Safety & Health Personnel</i>
7.1	No further instructions.
7.4(e)	No further instructions.
8.1	No further instructions.
9.1	The applicable liquidated damages is at least one tenth (1/10) of one percent of the cost of the unperformed portion for every day of delay. The maximum deduction shall be ten percent (10%) of the amount of the contract, the Procuring Entity shall rescind the contract, without prejudice to other courses of action and remedies open to it.
10.1	The site investigation reports are: <i>None.</i>
10.3	<i>The Certificate of Site Inspection shall be issued by Engr. Raul A. Libatique, Acting ESD Manager, PMO-MarQuez.</i>
12.5	<i>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</i>

	<p><i>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.</i></p> <p><i>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.</i></p> <p><i>In case of other structures, such as Bailey and wooden bridges, shallow wells, spring developments, and other similar structures: Two (2) years.</i></p>
13	<p>No additional provision.</p> <p>For Joint Venture, "All partners to the joint venture shall be jointly and severally liable to the Procuring Entity."</p>
21.2	The Arbiter is an <i>accredited arbiter as agreed upon by the contracting parties.</i>
21.3	No further instructions.
26.1	No further instructions.
29.1	Day works are applicable at the rate shown in the Contractor's original Bid.
31.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within <i>Fifteen (15) days</i> of delivery of the Letter of Acceptance.
31.3	<p>The period between Program of Work updates is <i>Sixty (60) days.</i></p> <p>The amount to be withheld for late submission of an updated Program of Work is <i>One-tenth of one percent (1/10 of 1%) of the amount of his succeeding billing claim.</i></p>
34.7	The Funding Source is the <i>Government of the Philippines, PPA Corporate Funds CY 2021.</i>
37.1	No further instructions.
40.1	No further instructions.
40.3	No further instructions.
42.2	No further instructions.
48	No further instructions.
51.1	The date by which "as built" drawings are required is <i>Fifteen (15) days after project completion.</i>
51.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is <i>One-tenth of one percent (1/10 of 1%) of the amount of the final billing.</i>

Section VI. Technical Specification

Section VI. Technical Specification

Specifications

Repair/Upgrading of Water and Electrical Supply System Port of Lucena, Lucena City

1. DEMOLITION/BREAKING OF EXISTING PAVEMENT AND DISPOSAL OF MATERIALS

1.1 GENERAL

Division 1, "General Requirements" contain provisions and requirements essential to these specifications; and apply to this Section, whether or not referred to herein.

1.1.1 DESCRIPTION

This work shall consist of the breaking of existing pavement and disposal of unsuitable or excess materials including the removal of all superficial obstructions on the site in the way of or otherwise affected by the works as shown on the drawings. The Contractor shall clear each part of the site at times and to the extent required or approved by the Engineer.

The Contractor shall submit his proposed method of breaking of existing pavement and disposal of materials including materials, equipment, and all related works for the approval of the Engineer.

1.2 DEMOLITION AND CLEARING

1. Demolition

Where shown on the drawings or directed by the Engineer, dilapidated pavement and structures, or part of structures, masonry, and like material within the roadway and sidewalk shall be demolished by the Contractor. Where only a part of a structure has to be demolished, the Contractor shall take all possible care to ensure that only such part is demolished and shall make good at his own expense any damage beyond that part. During demolition, the Contractor shall take every precaution to protect the unaffected roadway, structure, embankment and all other existing works from damage and likewise ensure the safety of his workmen and the general public.

When the area on which an embankment is to be placed has been cleared, the Engineer may order the surface of the existing ground to be scarified so that the filling material will bind into the original ground. The cost of such work, if so required, shall be included in other items of work and shall not be paid for separately.

2. Disposal of Materials

- a. All demolished materials shall be removed or deposited off the site in dumps to be provided by the Contractor in a manner approved by the Engineer. If however, in the opinion of the Engineer, the demolished material is suitable for filling, the Engineer will direct that the material be used. The Contractor may, with the written approval of the Engineer, use for the purposes of the works any cleared materials which are at his disposal.

1.3 MEASUREMENT AND PAYMENT

1. Demolition/breaking of existing pavement to be paid for shall be measured by square meters of the pavement in its original position for material actually demolished and disposed.
2. The quantities determined will be paid for at the contract unit prices for the pay items as shown in the Bill of Quantities which prices and payment shall be the full compensation for the demolition and disposal of all materials inclusive of all labor, equipment, tools and incidentals necessary to complete the items and as certified by the Engineer.

1.4 EXCAVATION AND DISPOSAL OF UNSUITABLE MATERIALS

1.4.1 GENERAL

Division 1 "General Requirements" contain provisions and requirements essential to these specifications; and apply to this Section, whether or not referred to herein.

1.4.2 CLEARING AND GRUBBING

Prior to the start of excavation and grading operations, all superficial obstructions including trees, shrubs and the like on the Site in the way of or otherwise affected by the Work shall be removed as shown on the drawings. The Contractor shall clear each part of the Site at times and to the extent required or approved by the Engineer.

All combustible materials from clearing operation shall be completely burned or removed from site of work or otherwise disposed of as directed by the Engineer.

Stumps shall be removed entirely. Roots and matted roots shall be grubbed out to at least 450 mm below the existing surface and shall be backfilled with suitable material and compacted to the required density.

1.4.3 STRIPPING

The areas from which stripping of top soil may be required shall be indicated on the drawings. The Contractor shall remove top soil from such portions of these areas and to such depth as the Engineer may

deposited in stock piles at locations approved by the Engineer and/or spread and compacted with a light roller where indicated on the drawings or where directed by the Engineer.

The top soil shall be kept separate from other excavated materials and shall be completely removed to the required depth from any designated area prior to the beginning of regular excavation or embankment work in the area. No payment will be made for top soil removed from places other than those ordered.

1.4.4 EXCAVATION

1.4.4.1 ROADWAY EXCAVATION

The Contractor shall carry out all excavation required along the roadway and sidewalk regardless of the type of soil or obstructions thereat. All excavation shall be carried out to lengths, widths, depths and profiles necessary of the construction of the roads shown on the drawings or to such other dimensions as may be approved in writing by the Engineer.

Excavation shall be carried out in such a way as to avoid disturbance to the surrounding ground and other existing works.

Particular care shall be taken to maintain stability when excavating in close proximity to existing structures, and for underground utilities. The Contractor shall comply with all instructions of the Engineer regarding the supporting of the sides of excavation and shall be entirely responsible for the sufficiency of all temporary timbering and supports to the excavation. Any unsound formation areas or underground utility uncovered as a result of the excavation shall be reported to the Engineer immediately for his instructions.

1.4.4.2 EXCESS EXCAVATION

If for any cause whatsoever excavations are carried out beyond their true line and level, other than at the direction of the Engineer, the Contractor shall at his own cost make good to the required line and level with appropriate grade of filling or by other approved material and in such manner as the Engineer may direct.

1.4.4.3 DISPOSAL OF UNSUITABLE AND EXCESS MATERIALS

If in the opinion of the Engineer, the excavated material is unsuitable for backfill, the Engineer will direct that the material be removed from the site and disposed of in an approved location. All excess materials shall also be disposed of where directed by the Engineer.

1.4.5 MEASUREMENT AND PAYMENT

1. The quantity to be paid shall be the area in square meters of the clearing and grubbing works completed in accordance with these specifications.
2. The quantity to be paid shall be the area in square meter of the stripping works completed in accordance with these Specifications. Payment shall be per unit of quantity listed in the Bill of Quantities, price of which includes payment for labor, materials, tools and equipment necessary to complete the work.
3. The cost of excavation of material which is incorporated in the works in embankments or in other areas of fill shall be deemed to be included in the items relating to the parts of the work where the material is used. Measurement of unsuitable or surplus material shall be the net volume in its original position, in cubic meters.

For measurement purposes, surplus suitable material shall be calculated as the difference between the net volume of suitable material required to be placed in fill and the net volume of suitable material arising from any excavation, in cubic meters.

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

4. The quantities determined as provided above shall be paid for at the appropriate contract unit price for each of the particular pay-items shown in the Bill of Quantities which prices and payment shall constitute full compensation for all the costs of obtaining and preparing as required by the particular item.

2. EARTHWORKS

2.1 GENERAL

This Item shall consist of the necessary excavation for foundations of rock bedding, buildings, culverts, underdrains, and other structures not otherwise provided for in the Specifications. Except as otherwise provided for pipe culverts, the backfilling of completed structures and the disposal of all excavated materials, shall be in accordance with these Specifications and in reasonably close conformity with the Plans or as established by the Engineer.

This Item shall include necessary diverting of live streams, bailing, pumping, draining, sheeting, bracing, and the necessary construction of cribs and cofferdams, and finishing the materials therefore, and the subsequent removal of cribs and cofferdams and the placing of all necessary backfill.

It shall also include the furnishing and placing of approved foundation fill material to replace unsuitable material encountered below the foundation elevation of structures

2.2 CONSTRUCTION REQUIREMENTS

1.2.1 Clearing and Grubbing

Prior to starting excavation operations in any area, all necessary clearing and grubbing in that area shall have been performed in accordance with Clearing and Grubbing.

2.2.2 The Specification of Excavation

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

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

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

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

(2) Structures - Other than Pipe Culverts. All rocks or other hard foundation materials shall be cleaned of all loose materials, and cut to a firm surface, either level, stepped, or serrated as directed by the Engineer. All seams or crevices shall be cleaned and grouted. All loose and disintegrated rocks and thin strata shall be removed. When the footing is to rest on material other than rock, excavation to final grade shall not be made until just before the footing is to be placed.

When the foundation material is soft or mucky or otherwise unsuitable, as determined by the Engineer, the Contractor shall remove the unsuitable material and backfill with approved granular material. This foundation fill shall be placed and compacted in 150mm (6 inches) layers up to the foundation elevation.

When foundation piles are used, the excavation of each pit shall be completed before the piles are driven and any placing of foundation fill shall be done after the piles are driven. After the driving is completed, all loose and displaced materials shall be removed, leaving a smooth, solid bed to receive the footing.

(3) Pipe Culverts - The width of the pipe trench shall be sufficient to permit satisfactory jointing of the pipe and thorough tamping of the bedding material under and around the pipe.

When a firm foundation is not encountered at the grade established, due to soft, spongy, or other unstable soil, such unstable soil under the pipe and for a width of at least one diameter on each side of the pipe shall be removed to the depth directed by the Engineer and replaced with approved granular foundation fill material properly compacted to provide adequate support for the pipe, unless other special construction methods are called for on the Plans.

The foundation surface shall provide a firm foundation of uniform density throughout the length of the culvert and, if directed by the Engineer, shall be cambered in the direction parallel to the pipe centerline

When pipe culverts are to be placed in trenches excavated in embankments, the excavation of each trench shall be performed after the embankment has been constructed to a plane parallel to the proposed profile grade and to such height above the pipe as shown on the Plans or directed by the Engineer.

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

2.2.3 Backfill and Embankment for Structures other than Pipe Culverts.

Excavated areas around structures shall be backfilled with free draining granular material approved by the Engineer and placed in horizontal layers not over 150mm (6 inches) in thickness, to the level of the original ground surface. Each layer shall be moistened or dried as required and thoroughly compacted with mechanical tampers.

In placing backfills or embankment, the material shall be placed simultaneously insofar as possible to approximately the same elevation on both sides of an abutment, pier, or wall. If conditions require placing backfill or embankment appreciably higher on one side than on the opposite side, the additional material on the higher side shall not be placed until the masonry has been in place for 14 days, or until test made by the laboratory under the supervision of the Engineer establishes that the masonry has attained sufficient strength to withstand any pressure created by the methods used and materials placed without damage or strain beyond a safe factor.

Backfill or embankment shall not be placed behind the walls of concrete culverts or abutments or rigid frame structures until the top slab is placed and cured. Backfill and embankment behind abutments held at the top by the superstructure, and behind the sidewalls of culverts, shall be carried up simultaneously behind opposite abutments or

care shall be taken to prevent any wedging action against the structure and slopes bounding or within the areas to be filled shall be benched or serrated to prevent wedge action. The placing of embankment and the benching of slopes shall continue in such manner that at all times there will be a horizontal beam of thoroughly compacted material for a distance at least equal to the height of the abutment or wall to be backfilled against except insofar as undisturbed material obtrudes upon the area.

Broken rock or coarse sand and gravel shall be provided for a drainage filter at weep holes as shown on the Plans and/or necessary.

3. REINFORCED CONCRETE

3.1 GENERAL

All works falling under this category shall include reinforced concrete for all kinds and parts of any reinforced concrete structure.

3.2 MATERIALS

a.) Cement

Cement used shall be Type I Portland conforming to the requirements of the latest revision of ASTM C 150 "Standard Specifications for Portland Cement".

b.) Coarse Aggregates

Coarse Aggregates shall be washed, well graded, hard pieces of gravel, crushed gravel or rock conforming to the requirements of ASTM C 33 "Standard Specification for Concrete Aggregates".

c.) Fine Aggregates

Fine Aggregates shall be washed sand, stone screenings or other inert materials of same characteristics, or any combination thereof composed clean, hard, strong, uncoated grains and free from injurious amount of dust, lumps of clay, shale, alkali, and organic matter. It shall conform to the requirements of ASTM C33 "Standard Specifications for Concrete Aggregates". Beach sand shall not be used unless approved by the Engineer.

d.) Admixtures

Unless otherwise required by field conditions admixtures may be used subject to the expressed approval of the Engineer. The cost thereof shall be considered as already included in the unit cost bid of the Contractor for the concrete.

3.3 STORAGE OF MATERIALS

- a.) Cement shall be stockpiled as closely as possible in weatherproof storage sheds, stacks suitably elevated above ground to prevent cement absorption of moisture.
- b.) Aggregates shall be placed in stockpile in a manner preventing segregation thereof and contamination with foreign materials.
- c.) Reinforcing steel bars shall be stored properly, covered and protected from humidity to prevent rusting and contamination with oil, dirt or other objectionable matters.

3.4 DESIGNED STRENGTH OF CONCRETE

Concrete for structural parts or members such as bearing piles or columns shall develop a minimum 28-day compressive cylinder strength of 4,500 psi., and for deck or floor slabs, beams and girders of the structure shall develop a minimum 28-day compressive cylinder strength of 3,500 psi., unless otherwise indicated in the drawings.

Concrete for non-structural parts or members such as partition walls and slab on fill shall develop a minimum 28-day cylinder strength of 3,000 psi., unless otherwise indicated in the drawings.

3.5 TRIAL BATCH FOR CONCRETE

Thirty (30) calendar days before the start of concreting works, the Contractor shall submit design mixes and the corresponding test result made on sample thereof. Sampling and testing shall be in accordance with the ASTM Standard procedures for sampling and testing, for the particular design strengths) required.

The particulars of the mix such as the slump and the proportionate weights of cement, saturated surface dry aggregates and water used shall be stated. Test results shall show 28-day strengths) fifteen (15) percent higher than the ultimate strength(s) required.

The design mix for concrete to be used shall be submitted together with at least three (3) standard cylinder samples for approval at least one (1) month prior to the start of each concreting schedule. Such samples shall be prepared in the presence of the Engineer.

Standard laboratory strength test for the 7, 14 and 28 days periods shall be taken to all concrete samples in addition to routine field tests, at cost to the Contractor. Only design mixes represented by test proving the required strength for 7, 14 and 28 days tests shall be allowed.

The cost of sampling, handling and transporting samples from jobsite to the laboratory and the cost of subsequent tests made until the desired mix is attained shall be for the account of the Contractor.

3.6 CONCRETE PROPORTION AND CONSISTENCY

Concrete proportion should produce mix consistencies that will work readily into angles and corners of the forms and around reinforcements irrespective of the method of placing employed, without permitting the materials to segregate or excess water to collect on the surface of the concrete and with separated individual particles of aggregates showing coating of mortar with proportionate amount of sand. The total aggregate in the proportion used shall be such that when sieved, the weight passing the No.4 standard sieve shall be thirty percent (30) of the total.

The methods used for measuring materials going into the concrete mix shall permit easy checking and control of proportions at any time during the work.

3.7 MIXING OF CONCRETE

All concrete used shall be machine-mixed at the site. Each batch shall be mixed at the mixer's design speed, for at least 1-112 minutes after all concrete materials are simultaneously placed in the mixer. The ideal rotation speed of the mixer shall be between 14 and 20 rpm.

All mix contents of the mixer shall be thoroughly removed before any succeeding batch is placed.

The materials for the first batch shall contain sufficiently excess cement, sand and water to coat the inside walls of the mixer without reducing the required mortar content of the mix.

The mixer shall be provided with devices for accurately measuring and controlling the amount of water used in each batch and for automatically recording the number of revolutions of the mixer.

Hand mixing of concrete will only be allowed in case of mixer breakdown, in which case it shall be stopped as soon as pouring for the particular section is completed, or at a construction joint as directed by the Engineer.

Re-tempering or remixing of partially hardened concrete with the addition of water will not be permitted.

3.8 PLACING OF CONCRETE

- a.) Concrete shall be placed in the presence of the Engineer only after the forms, reinforcing bars and other spaces to receive the concrete have been inspected and approved by him.
- b.) Concrete shall be placed only when wind and weather conditions will allow proper placement and curing of the concrete. Notice of any concreting operations shall be served to the Engineer at least three (3) days ahead of each schedule.
- c.) Mixed concrete shall be deposited in its final position within a practicable time. Each succeeding fresh deposit for particular structural member shall be placed at a practicable rate to prevent cold joints. Each successive fresh

thoroughly but shall be discontinued the moment segregation of materials is noticed.

- d.) Where concreting operations involve a fall more than 1.50 meters (4.92 feet), the fresh concrete shall be poured through approved sheet metal conduit or pipes. The pipes shall be kept full of concrete and its lower end kept below the surface of concrete throughout the pouring operations.
- e.) Deposition of concrete shall be in such a way as to prevent segregation of the materials and the displacement of the reinforcement. Placing shall be done preferably with the use of buggies, buckets or wheel-borrows. Troughs, conveyors and pipes and the manner of use of each one shall be with the expressed permission of the Engineer.
- f.) Each layer of concrete shall be placed approximately normal as possible in uniform layers not exceeding 0.30 meter, unless otherwise ordered. The rate of placing concrete in the forms shall preferably be 0.025 meter (0.082 feet) vertical rise per minute.

3.9 CONSTRUCTION JOINT

During stoppage of concrete pouring operations, and when jointing of old concrete becomes necessary, the following point should be observe:

- a.) Construction joint not indicated in the drawings shall be located as to least affect the strength of the structure. Such locations will be as pointed out by the Engineer.

3.10 FORMS AND FALSEWORK

All forms and falsework to be used in the work must be designed, and constructed by the Contractor, for rigidity and adequacy for carrying the loads of the fresh concrete and/or additional superimposed construction loads. The Authority may from time to time verify the adequacy and safety of such temporary works and may require the Contractor to submit detailed designed drawings of forms and falseworks proposed to be used. Approval of such drawings or design of forms, however, shall not relieve the Contractor of his liability on resulting imperfections or damages to the finished concrete, or other damages which may directly result therefrom.

Forms may be re-used but shall be scrapped by a wire brush of all clinging mortar. Bulges should be planed and realigned prior to its use.

Prior to placing concrete form surfaces should be oiled for easy form removal. However, the oil coating should not be so thick as to stain and soften the concrete surface. Oil coatings should be applied before rebars are placed.

3.11 CURING AND WATERPROOFING

All concrete shall be cured for at least 14 days after the date of placing in accordance with the approved and accepted methods.

3.12 FINISHING OF CONCRETE SURFACES

Concrete surfaces shall conform accurately to the form, alignment, grades and sections shown in the drawings or as prescribed by the Engineer. It shall be free from bulges, ridges, honeycombing or roughness of any kind, and shall be of a reasonably smooth wood float finish.

3.13 TREATMENT OF SURFACE DEFECTS

All irregular concrete surfaces, voids, holes, honeycombs exposed after removal shall be repaired by the Contractor in such a way that the repaired surface will be acceptable under paragraph 21.12 above.

3.14 ARCHITECTURAL FINISH

All exposed concrete exterior surfaces shall be given an architectural finish as directed by the Engineer.

3.15 PLACING OF REINFORCEMENT

Metal reinforcement shall be placed as accurately detailed on drawings and properly secured by approved means.

All bars shall be cold bent unless approved otherwise by the Engineer. Minimum distance between parallel bars shall be one and one half (1 1/2) times the diameter for round bars and twice the side dimension for square bars. The clear distance between bars shall not be less than 2.54 cm. (1 in.) nor is less than one and one third (1 1/3) times the maximum size of the coarse aggregate, whichever bigger.

All reinforcing steel shall be cleaned of all rust or scale and deleterious materials which tend to destroy the bond between the concrete and the steel.

3.16 REINFORCING BAR SPLICES

Generally, splice/s of reinforcement at points of maximum stress specially in slabs, beams and girders shall be avoided. Such splice/s may however be approved by the Engineer in writing provided the lap if bonded or butt welded is sufficient to transfer tensile stress between bars by at least 125 of the specified yield strength of the reinforcing bar. For adjacent bars splices shall be staggered.

3.17 READY-MIXED CONCRETE

Where ready-mixed concrete is used, the requirements specified for batching, mixing and transporting shall be in accordance with the requirements set forth in ASTM C94 Specifications for Ready-Mixed Concrete unless otherwise specified.

- a.) The Contractor shall notify the Engineer seven (7) days in advance before any continuous phase of concreting operations is started. Upon notification the Engineer shall have the right to inspect the ready-mixed

provide safe and adequate guidance for the Engineer or his representative in conducting such examinations.

- b.) For all ready-mixed concrete delivered to site of work, discharge shall be completed within one hour after the addition of cement to the aggregates or before, the drum is revolved 25 times, whichever comes first. Under conditions contributing to the stiffening of concrete especially during hot weather, the time required between the introduction of cement to the aggregates and discharge of the mix may still be reduced by the Engineer.
- c.) Truck mixers shall be equipped with counters indicating the number of revolutions of the drums which shall be automatically actuated at the time of starting mixers at mixing speed.
- d.) Each batch or truck delivery of concrete shall be mixed inside the drum for not less than 70 revolutions of the drum at the rate of rotation designated by the equipment manufacturer. Additional mixing if ordered by the Engineer shall be at the speed designated as agitating speed by the manufacturer of the equipment.
- e.) Concrete for individual batches or deliveries should be of uniform consistency, mix and grading. If slump tests of a minimum 2 samples taken within 15 minutes of each other at approximately 15 and 85 discharge load give values differing more than 2.54 cm. (1 in.) when the specified slump is 76 mm. (3 in.) , use of the particular mixer in the work shall be stopped until corrections are made to prevent such conditions, which shall be confirmed by further slump tests.
- f.) Every batch of ready-mixed concrete delivered at the job site shall be accompanied by a ticket furnished in accordance with Section 15 of ASTM 94. The time when the materials were batched shall also be indicated.
- g.) Non-agitating equipment or combination truck and trailer equipment for transporting concrete will not be permitted.
- h.) The Authority reserves the right to verify from time to time the quality and quantity of materials used in every cement batch from the batching plant. The Contractor shall be aware of this provision and make the proper arrangement with the concrete supplier.

3.18 TEST ON CONCRETE

Test on concrete shall be in accordance with the following:

- a.) Concrete samples for tests shall be secured and molded in accordance with ASTM C 172 - "Method of sampling Concrete", and ASTM C31 - "Method of making Curing, Concrete Compression and Flexure Test specimens in the field".
- b.) Strength tests on samples shall be made in accordance with ASTM C39 - "Standard Method of Test for Compressive Strength of Molded Concrete Cylinder".

Not less than four (4) cylindrical specimens shall be made for each test of which at least two (2) shall be reserved for 28-day test. Not less than one (1) test shall be made for every fifty (50) cubic meters of concrete but in no case less than one (1) test for each day's concreting.

Samples shall be taken by the Contractor under close supervision of the Engineer; and shall be delivered as soon as practicable for testing, at his expense, to the designated laboratories.

The average strength of test samples representing any definite class of concrete used as well as the average of any five (5) consecutive strength tests representing the class of concrete shall be equal to or greater than the specified strength and not more than one (1) strength test in ten (10) shall have an average value less than 90 of the specified strength.

If the test results indicate strength values less than the required, the Project Manager shall have the right to order a change in the concrete proportion used for the remaining work, or in the procedure of curing the concrete.

3.19 LIQUIDATED DAMAGES

For failure to meet the specified strength required for concrete, designed, prepared and laid by him, the Contractor shall pay the AUTHORITY a liquidated damages, not as penalty or forfeiture the following, to be applied only to the quantity of concrete which the particular sample/s represent.

- a.) Payment of 30 percent contract unit cost per cubic meter of concrete affected, for test resulting to strength between 90 to 100 percent of specified strength;
- b.) Payment of 50 percent contract unit cost per cubic meter of concrete affected, for test resulting to strength between 80 to 90 percent of that specified strength;
- c.) Non-payment and removal and replacement at cost to the Contractor of all concrete affected for resulting to strengths below 80 percent of that specified, all in accordance with ACI - 318, and at cost to the Contractor.

3.20 FIELD TESTS

Field tests as may be deemed necessary to check on the quantity of the materials and mixtures and the manner of construction employed shall be conducted by the Project Engineer assigned to the project. And when such tests result to values less than that tolerated by standards set in applicable provisions of the ASTM Specifications referred to herein, or contrary to accepted good Engineering practice, the Contractor shall comply to any instructions given by the Project Engineer to upgrade the materials used and method of construction employed.

4. STEEL AND METAL WORKS

4.1 GENERAL

Division 1, "General Requirements," contain provisions and requirements essential to these specifications; and apply to this Section, whether or not referred to herein.

4.1.1 SCOPE OF WORK

The work includes the furnishing of all labor, materials, equipment and other incidentals necessary for the fabrication and installation of structural steel and miscellaneous metal works as specified in relevant items of these specifications and as indicated on the drawings.

4.1.2 SUBMITTAL

1. Before placing orders for materials for the steel and metal works, the Contractor shall submit to the Engineer for approval shop drawings for all steelwork. All project shop drawings shall show the dimension of all parts, method of construction, bolts, welding sectional areas and other details.
2. The detail of connections shown on the shop drawings shall be such as to minimize formation of pockets to hold condensation, water or dirt. A minimum gap between abutting angles and the like shall be provided wherever possible to eliminate any traps and facilitate maintenance painting.
3. No materials shall be ordered nor fabrication commenced until the shop drawings are approved by the Engineer.

4.1.3 STORAGE OF MATERIALS

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

4.2 MATERIAL REQUIREMENTS

1. Unless specified herein all steel structures and metals shall conform with the requirements of Section 3.15, "Steel and Metal Works." Connections where details are not specified or indicated herein, shall be designed in accordance with the American Institute of Steel Construction (AISC), Manual of Steel Construction, latest edition.
2. Structural steel works consisting of channels, gusset plates and other structural steel shape shall be as indicated on the drawings and shall be structural carbon steel conforming to ASTM A 36. Shapes shall be as given in AISC Manual of Steel Construction.

Nuts shall conform to ASTM A 560, Grade A, heavy hex style, except nuts 38 mm (1-1/2 inch) may be provided in hex style. Washers shall conform to ANSI B 18.22.1, Type B.

4. Electrodes for arc welding shall be E70 series conforming to American Welding Society Specifications A5.1.
5. Tests are required under the ASTM Standards for steel to be used in the Works and shall be carried out in the presence of the Engineer and at least four (4) days notice must be given to him of the dates proposed for such tests. Four (4) calendar days notice on which fabricated steelwork will be ready for inspection in the Contractor's yard.
6. Standard bolt shall conform to ASTM A 307 Carbon Steel Externally Threaded Standard Fasteners.

4.3 EXECUTION

4.3.1 FABRICATION REQUIREMENTS

1. Workmanship

Fabrication shall be performed within the permissible tolerance by the approved fabricator. All workmanship shall be of the best quality with respect to internationally recognized standards of practice.

2. Cutting

Low-carbon structural steel may be cut by machine-guided torch instead of by shears or saw. Harmful notches, burrs, irregularities, etc., shall not be developed at the cut surface.

3. Contact Faces

Contact surfaces between bases or other elements bearing directly upon bearing plates shall be ground or milled as necessary for full effective bearing. Edges for welding shall likewise be properly prepared.

4. Bolt Holes

Bolt holes shall be according to engineering practice and as specified in these specifications. Gas burning of holes will not be permitted.

5. High Strength Bolt Assembly Preparation

Surfaces of high strength bolted parts in contact with bolt heads and nuts shall not have a slope of more than 1:20 with respect to a plane normal to the bolt axis. Where the surface of a high strength bolted part has a slope of more than 1:20, a beveled washer shall be

separated by gaskets or any other interposed compressible materials. When assembled, all joint surfaces including those adjacent to washers shall be free of scale except tight mill scale, and shall be free from dirt, loose scale, burrs, and other defects that would prevent solid seating of parts. Contact surfaces of friction-type joints shall be free from oil, paint, lacquer or galvanizing.

6. Welding

All welding shall be done only by welders certified as to their ability to perform in accordance with accepted testing requirement. Welding of parts shall be in accordance with structural standards and the Standard Code for Arc and Gas Welding in Building Construction of AWS, and shall only be done where shown, specified, or permitted by the Engineer. Damage to galvanized areas by welding shall be thoroughly cleaned with wire brushing and all traces of welding flux and loose or cracked zinc coating shall be removed prior to painting. The cleaned area shall be painted with two coats of zinc oxide-zinc dust paint. The paint shall be properly compounded with a suitable vehicle in the ratio of one part zinc oxide to four parts zinc dust by weight. As an alternative to the above, the Contractor may submit for approval the use of a galvanizing rod or galvanizing solder to repair damaged areas. The welding machine shall be a stable welder, and have suitable functions for the dimension of materials to be welded. The auxiliary tools used for welding shall perform sufficiently and adequately. The welding machine used for field welding shall be of readily adjustable for electric current.

7. Shop Assembly

Structural units furnished shall be assembled in the shop. An inspection shall be made to determine that the fabrication and the matching of the component parts are correct. Jigs shall be used for the assembly of units as much as possible to maintain appropriate position of mutual materials. Approval of the Engineer shall be required when drilling temporary bolt holes or welding temporary support to the assembled structure. The tolerances shall not exceed those allowed by codes and each unit assembled shall be closely checked to insure that all necessary clearances have been provided and that binding does not occur in any moving part. In order to maintain accurate finished dimensions and shape, appropriate reverse strain or restraint shall be provided as required. Assembly and disassembly work shall be performed in the presence of the Engineer, unless waived in writing by the Engineer any errors or defects disclosed shall be immediately remedied by the Contractor. Before disassembly for shipment, component parts of the structures shall be match marked to facilitate erection in the field.

4.3.2 FABRICATION TOLERANCES

1. Dimensional Tolerances for Structural Work

Dimensions shall be measured by means of an approved calibrated steel tape at the time of inspection. Unevenness of plate work shall not exceed the limitation of the standard mill practice as specified in the American Institute of Steel Construction, "Manual of Steel Construction".

2. Camber

Reverse camber in any structural steel members in excess of $1/1,000$ of the span length shall cause rejection. The minimum dead load camber for any structural steel member shall be as allowed by Code, or otherwise specified.

4.3.3 INSPECTION AND TEST OF WELDING

1. Inspection of Welding

Inspection of welding shall be executed for the following work phases.

a. Before Welding

Scum, angle of bevel, root clearance, cleaning of surface to be welded, quality of end tab, drying of welding rod.

b. During Welding

Welding procedure, diameter of coil and wire, type of flux, welding current and voltage, welding speed, welding rod position, length of arc, melting, cleaning of slag of each level under surface chapping, supervision of welding rod.

c. After Execution of Welding

Assurance of bead surface, existence of harmful defects, treatment of crater, quality of slag removal, size of fillet, dimension of extra fill of butt welding, treatment of end tab.

2. Testing of Welding

Twenty percent (20%) of welds contributing in the overall strength of the structure and which will be inaccessible for the inspection in service shall be tested. Welding shall be tested by ultrasonic test to the extent specified herein or as directed by the Engineer. Where partial inspection is required, the ultrasonic test shall be located at random on the welds so as to indicate typical welding quality. If

welding shall be tested. Repair welding required shall be ultrasonic tested after the repairs are made.

4.3.4 CORRECTIONS

In lieu of the rejection of an entire piece or member containing welding which is unsatisfactory or which indicates inferior workmanship, corrective measures may be permitted by the Engineer whose specific approval shall be obtained for making each correction. Defective or unsound welds or base steel shall be corrected either by removing and replacing the entire weld, or as follows.

1. Excessive convexity or overlap shall be reduced by grinding.
2. Undercuts, lack of weld shall be repaired with necessary reinforcement of weld after removal of any foreign materials such as slag, dust, oil, etc.
3. Any defects such as slag inclusions, incomplete fusion, or inadequate joint penetration, shall be completely removed, cleaned and re-welded.
4. Cracks in welds or base steel, shall be removed to sound steel throughout their length and 5cm beyond each end of the crack, followed by welding. The extent of the crack, depth and length, shall be ascertained by the use of acid etching, magnetic particle inspection or other equally positive means. The removal of welded steel shall be done by chipping, grinding, oxygen cutting, oxygen gouging, or air carbon arc gouging and in such a manner that the remaining welded steel or base steel is not nicked or undercut. Defective portions of the welding shall be removed without substantial removal of the base steel.

4.3.5 INSTALLATION

1. Installation Program

a. Prerequisite Condition

Prior to executing steel fabrication and field installation, the Contractor shall prepare a comprehensive installation program including engineering supervision organization, fabrication procedures, field installation procedures, material application, machinery applications, inspection procedure, scope and standard of quality judgment, and submit to the Engineer for approval.

b. Special Technical Engineering

Special technical engineering different from contract specifications can be applied upon receiving approval of the Engineer

2. Installation Requirement

a. Setting of Anchor Bolt and Others

1. Anchor bolts shall be set in accurate position by using templates.
2. The setting method shall be proposed to the Engineer for his approval before setting starts.
3. The threads of bolt shall be cured with an appropriate method against rust and/or any damage before tightening.
4. Non-shrink mortar shall be placed under base plates, well cured to obtain the sufficient strength before bearing loads are applied to base plates.

b. Temporary Bracing

1. Temporary bracing shall be installed as necessary to stay assemblies and assume loads against forces due to transport, erection operations or other work.
2. Temporary bracing shall be maintained in place until permanent work is properly connected and other construction installed as necessary for support, bracing or staying of permanent work.
3. Extent and quality of temporary bracing shall be as necessary against wind and other loads, including seismic loads not less than those for which the permanent structure is designed to resist.

c. Adequacy of Temporary Connections

During erection, temporary connection work shall be securely made by bolting and/or welding for all dead load, wind and erection stresses.

d. Alignment

No permanent bolting or welding shall be done until the alignment of all parts with respect to each other shall be true within the respective tolerances required.

e. Field Welding

1. Any shop paint or surfaces adjacent to joints where field welding is to be executed shall be wire brushed to remove paint/primer.
2. Field welding shall conform to the requirements specified

f. High Strength Bolts

1. Final tightening of high strength bolts shall be done by using manufacturer's power operated equipment without any overstress to the threads.

g. Correction of Errors

1. Corrections of minor misfits by use of drift pins, and reaming, chipping or cutting will be permitted and shall be provided as part of erection work.
2. Any errors to be corrected or adjusted, preventing proper assembly, shall be immediately reported to the Engineer, and such corrections or adjustments shall be made as necessary and approved by the Engineer.
3. Cutting or alterations other than as approved will not be permitted.

h. Erection

1. Erection and installation shall be as per approved shop drawings.
2. Each structural unit shall be accurately aligned by the use of steel shims, or other approved methods so that no binding in any moving parts or distortion of any members occurs before it is finally fastened in place.
3. Operations, procedures of erection and bracing shall not cause any damage to works previously placed nor make overstress to any of the building parts or components. Damage caused by such operations shall be repaired as directed by the Engineer at no extra cost to the Employer.

5. MASONRY WORKS

5.1 SCOPE OF WORK

The work shall include all labor, materials, equipment and plant and other facilities and the satisfactory performance of all works necessary to complete all masonry work shown on the drawings and as specified herein.

5.2 MATERIALS REQUIREMENTS

- a. Concrete hollow blocks shall have a minimum compressive strength of 50 kg/cu. cm. or 4.9 MPa and shall conform to the requirements of ASTM C90. Unless specified otherwise, all concrete hollow blocks shall be of the non-load bearing type. All units shall be sound and free from cracks or other

- b. Cement mortar shall be one (1) part Portland cement and three (3) parts of sand by volume.

5.3 CONSTRUCTION REQUIREMENTS

Do not wet blocks before using. Blocks must be dried when laid. The first row of blocks must be thoroughly anchored to the concrete walls, columns or slabs and shall be laid in full bed of mortar. Courses shall be laid straight and uniform with regular running bond and with vertical faces truly vertical and set true to line. Each block shall be adjusted to its final position in the wall while the mortar is still soft and plastic enough to ensure good bond. The position of the block shall never be shifted after the mortar has stiffened. No re-alignment of a block shall be attempted after a higher or following course has been laid.

All horizontal and vertical reinforcing bars shall be anchored into the concrete walls, columns or slabs as shown on the plans or as directed by the Engineer. Dowel bars shall be properly spaced and placed into the walls, columns or slabs, hooked to the vertical and horizontal reinforcing bar.

All units shall be laid with a mortar composed of one part cement and three parts of sand. Unless otherwise required by the Engineer, horizontal and vertical joints shall be 10 mm thick with full mortar coverage on the face shells and on the web surrounding the cells to be filled. Joints shall be level or plumb and in alignment from top to bottom of wall, and shall be brushed to remove all loose and excess mortar.

Reinforcing bars shall be at least 12 mm in diameter, unless specified otherwise in the plans. Vertical bars shall be spaced 0.60 meter, and horizontal bars at every third course, unless shown otherwise on the plans. Reinforcing bars shall have a minimum lap of 40 bar diameter. All horizontal reinforcement must be tied to the vertical reinforcement at their intersection.

All exposed surfaces of concrete hollow blocks, unless otherwise specified on the plans, shall be finished with cement plaster. Cement mortar shall be mixed only in such quantities as are required for immediate use and mixture which has developed initial set shall not be used. Mixing shall be continued until a homogenous mixture of the required cement mortar which has partially hardened shall not be allowed. Bond shall be used where horizontal reinforcements are to be placed. At door and window opening, the jamb blocks and beam blocks over openings and below window sills shall be reinforced as shown on the plans or as directed by the Engineer.

6. WATERPROOFING

6.1 SCOPE OF WORK

This Item shall consist of furnishing all waterproofing materials, labor, tools, equipment and other facilities and undertaking the proper installation works required as shown on the plans and in accordance with this specification.

6.2 MATERIAL REQUIREMENTS

- a. Primer shall be of asphalt cold applied, free from water and other foreign matters, and shall conform to the specifications requirement defined in ASTM D-41.
- b. Built-up membrane shall be made of smoothly woven fibers that are impervious to acid, heat, dampness and rotting. It should permit complete penetration of asphalt compound or bituminous coating in the woven glass fiber.
- c. Preformed membrane shall be self-sealing flexible cold applied bituminous sheets bonded to 0.15mm thick polyethylene film.
- d. Mopping Materials
 - 1) Type A soft adhesive self-sealing asphalt for structure below ground level
 - 2) Type B where asphalt is not exposed on temperature exceeding 51.7 Celsius structure above ground level.
 - 3) Type C where asphalt is exposed on vertical surface in direct sunlight or above temperature of 51.7 Celsius structure above ground level.

6.3 CONSTRUCTION REQUIREMENTS

Roof decks, balconies, toilet and bathrooms, gutters, parapet walls and other areas indicated on the plans to be waterproofed shall first be rendered with cement-based waterproofing before any type of waterproofing is applied.

a. Application Procedure

- 1) Prior to application of membrane concrete surfaces should be sound and cured without the use of curing compound. Apply a coat of concrete neutralized to remove oil dirt and other contaminants.
- 2) Apply asphalt primer at the rate of one gallon per 100 square feet evenly by spraying or by paint brush.
- 3) Application shall be done one direction strip by and overlapping each other to assure uniform thickness.
- 4) Allow primer to dry until it is ready to receive next coat or layer as specified in the manufacturing instructional manual.
- 5) As soon as primer coating is workable, lay a single layer of preformed or built-up membrane conforming to size and shape of the surface area to be covered.
- 6) Carefully layside and end laps in order to assure an even thickness throughout the whole surface area to be covered.

- 8) Meshes of treated woven glass fibers shall not be completely closed or sealed by the primer coat, but shall sufficiently open to allow successive moppings of the ply material to seep through.
- 9) Cover ply not more than the minimum amount of surfacing necessary to prevent sticking on ply.
- 10) After application surface shall be uniformly smooth, free from irregularities folds and knots.
- 11) Repeat the procedures until 5 plies has been satisfactorily installed or as many as may layers required or as specified in the plans.
- 12) Where weather disturbance interrupt the work and exposing the membrane to moisture remove the layer exposed to moisture and repeat procedure until completion of the process.

b. Protective Coating

- 1) Where laying of the built-up or preformed membrane conforms with the number of plies required as shown on the plans lay a mixture or sand mastic in the proportion of one part asphalt or bituminous material and four parts coarse screened sand by volume. With a steel trowel at an average of 3 mm thick over the surface of membrane.
- 2) Then at the rate of one gallon per (100 square feet) apply aluminum heat reflecting finish thoroughly over the dried sand mastic coating.

c. Metal Cap Flashing

- 1) Provide cap flashing gauge 24 G.I. where shown on the plans.
- 2) Where cap flashing is connected to preformed lock in through-wall form upper edge of cap flashing to engage in preformed lock. Mallet lock down tight to provide a spring action against base flashing.
- 3) Then at the rate of one gallon per (100 square feet) apply aluminum heat reflecting finish thoroughly over the dried sand mastic coating.
- 4) Where cap flashing is terminated in raked joints or in prepared masonry or stone reglet fasten flashing with wedge every 12 inches and fill reglet on vertical surfaces continuous with plastic cement and on horizontal surfaces, continuous with molten lead.

7. ELECTRICAL WORKS

7.1 SCOPE OF WORK

- a) The work to be done shall consist of fabricating, trenching, furnishing, delivering and installing of electrical materials/fixtures completed in accordance with all the details of the electrical works as shown on the drawings including materials, labor, tools and equipment and all incidental works as found necessary.
- b) Refer to electrical plans/drawings for location and extent of work involved.

7.2 GENERAL REQUIREMENTS

- a) All works shall be done in accordance with the requirements of the publications and agencies having jurisdiction, as well as the requirements of the approved standards.
 1. National Fire Protection Association - (NFPA)
 2. National Electrical Manufacturer Association - (NEMA)
 3. Underwriter Laboratories, Inc. - (UL)
 4. Philippine Electrical Code - (PEC)
Philippine National Standard - (PNS)
 5. Federation Specification :
Circuit Breaker, Molded Case, Branch
Circuit and Service
 6. American National Standard Institute - (ANSI)
 7. American Society for Testing and Materials - (ASTM)
 8. Illuminating Engineering Society - (IES)
- b) The electrical power will be tapped from the nearest available utility company power system. The Contractor shall coordinate the exact route of the supply cable and distribution with the PPA Engineer and authorized/proper authority in the area. Voltages shall be 220 volt, single phase, 60 Hertz, AC.
- c) The Contractor shall employ a licensed Registered Electrical Engineer or Master electrician to perform or to supervise and to conduct for continuous inspection of all electrical work.
- d) The Contractor shall first obtain approval from the Authority before procurement, fabrication or delivery of electrical materials to the site. Partial submittals will not be acceptable and will be returned without review. Submittals shall include the Manufacturer's Name, Trade Name, Place of Manufacture, Catalog Model or Number, Nameplate Data, Size, Layout Dimensions, Capacity, Project Specification and Paragraph Reference,

- e) All excavations, fill and backfill and concrete works involved herein, shall be carried to the required elevations and shall conform to the provisions of specification under Earthwork and Concrete Construction of this tender document.
- f) The materials and equipment to be furnished shall be standard products of reputable manufacturer engaged in the reproduction of such materials and equipment.
- g) All permits and electrical fees required for this work shall be obtained at the expense of the Contractor. The Contractor shall furnish the Engineer-in-Charge, the final Certificates of Inspections and approval from the proper government authorities after the completion of work. The Contractor shall prepare all as-built plans and all other paper works as required by the enforcing authorities.

7.3 MATERIALS REQUIREMENT

- a. All electrical materials, fixtures and equipment under by this Contract shall be furnished and installed by the Contractor.
- b. All materials, fixtures and equipment to be supplied shall be as shown in the drawings and shall be in accordance with the requirements of these specifications which shall apply to manufacturing, testing and supply of same materials and equipment.
- c. All electrical materials whether specifically described or not shall be of the best grade and all workmanship shall be of first class in every aspect.

All electrical equipment and materials supplied shall be suitable in every respect for operation in a hot tropical climate near the sea and suitable for operation at ambient temperature up to 40° C.

Any electrical materials and equipment found not meeting the requirements of relevant standards, or of these specifications shall be rejected by the Engineer.

All materials used in this Contract shall meet the requirements described in this specification, or otherwise approved by the Engineer and shall comply with the approved standard.

7.4 PRODUCTS

WIRES AND CABLES

The conductor material to be furnished and installed shall be of copper wire Heat Resistant Thermoplastic type "THHN ". All conductors shall be rated 600 volts insulation and shall be standard for all sizes.

LIGHTING FIXTURES AND ACCESSORIES

fixture to any particular manufacturer. Locally fabricated or manufactured fixture of similar design with equivalent light distribution and brightness characteristics having equal finish and quality, shall be acceptable as approved.

Die-cast aluminum housing with electrocoat gray finish shall have adjustable mogul base socket (street side), multi-photometric distribution available, and photo-electric control (PE), completely wire to the following components: 400 watts High Pressure Sodium Lamp (HOPS), HPF reactor ballast, single voltage 240 volt, with capacitor and igniter.

70 watts High Pressure Sodium Lamp (HPS)- Pole Park Light enclosed on a fiberglass dome cover and glass bottom diffuser. Mounting post shall be tapered 3000 mm height as shown on the drawing.

LAMP POST

The lamp post/s shall be furnished installed and tested for the perimeter and park lighting as shown in the plans. The post/s shall be dimensioned for a wind velocity of 185 km/hr. It shall be locally fabricated or manufactured. The post shall be zinc electroplated, prime-coated with red lead and shall be painted at site with the final coating preferably aluminum paint to be approved by the Engineer.

HANDHOLE

The handhole shall be of the type noted in the drawings and shall be constructed in accordance with the applicable details as indicated.

DUCTBANK

The contractor shall construct underground ductbank of individual conduit encased in concrete as shown in the drawing.

PANEL BOARD

The contractor shall furnish and install panel board as shown on the drawing. Panel Board shall contain molded case circuit breaker flush mounted type, magnetic contactor, push button switches and 5,5 mm² bare soft drawn copper grounding conductor. Connection shall be made by connecting one end to the body of the panel and the other end to the copper weld ground rod.

7.5 EXECUTION

- a. The Contractor shall furnish and install electrical materials as shown in the drawings. A licensed Electrical Engineer or Master Electrician is required to implement the installation of the electrical system. A licensed electrical contractor shall oversee/conduct the installation of the Main Circuit Breaker above 200 amperes.
- b. Electrical installation shall conform to the requirements of Philippine Electrical Code (PEC) and the other approved standards.

electrical installation applications regardless of capacity and voltage whether new, addition or revision shall be accompanied by electrical plans signed and sealed by a duly licensed Professional Electrical Engineer (PEE).

7.6 INSTALLATION

Lamp Post: shall be mounted! / anchored to a reinforced concrete foundation with base plates, anchor bolts standard nuts and washers as shown in the drawing.

Pole Setting: Depth as shown in the drawing.

Construction of reinforced concrete lamp post foundation , hand holes and duct bank with steel covers shall be in accordance with the shape and dimensions as shown in the drawing.

Excavations / backfilling required before /after installation of lamp post and parking area lighting and trench shall conform to the provisions of Earthwork and Concrete Construction.

Grounding : Each lamp post shall be grounded at the base by ground lugs and ground conductor connected to a ground electrode . The grounding electrodes shall be cone pointed, sectional copper clad steel 15 mm Φ by 1000 mm meter long.

Service Entrance, Overhead : Rigid Steel Conduit Pipe (RSCP) from the service equipment to the service entrance fitting weather head outside the building.

Service Entrance Conduit Underground: (Unplasticized Polyvinyl Chloride), (UPVC). The underground portion shall encased in concrete and shall be installed as shown on the drawing.

7.7 WORKMANSHIP

The work throughout shall be executed in the best and most thorough manner under the direction of and at the satisfaction of the Registered Electrical Engineer or Master Electrician, who will interpret the intent meaning of the drawings and specification and shall have the power to reject any work and materials which in his judgement, are not in full accordance therewith.

7.8 TESTING OPERATIONS

When the electrical installation is completed, the Contractor shall test the installed electrical materials and equipment in the presence of Registered Electrical Engineer or Master Electrician. The system shall be free from any defects, shorts or grounds. All necessary instruments and personnel required for the testing shall be furnished by the Contractor at no extra cost to the Authority.

***Section VII. Bid Proposal Form
and
Bill of Quantities***

Section VIII. Bidding Forms

Section IX. Plans and Drawings