

**REPUBLIC OF THE PHILIPPINES**



**BIDDING DOCUMENTS**

**CONSTRUCTION OF  
NORZAGARAY  
WATER SUPPLY SYSTEM  
IMPROVEMENT PROJECT**

**November 2020**



**REPUBLIC OF THE PHILIPPINES**



**BIDDING DOCUMENTS**  
**CONSTRUCTION OF**  
**NORZAGARAY**  
**WATER SUPPLY SYSTEM**  
**IMPROVEMENT PROJECT**

**Local Water Utilities Administration**

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**Water District Development Sector Project**

**Issued on: November 2020**

**Invitation for Bids No.: WDDSP- NorWD-IFB-CW07a**

**OCB No.: WDDSP-NorWD-OCB-CW07a**

**Employer: Norzagaray Water District (NorWD)**



## **TABLE OF CONTENTS**

<b>SECTION I. INVITATION TO BID .....</b>	<b>1-1</b>
<b>SECTION II. INSTRUCTIONS TO BIDDERS .....</b>	<b>2-1</b>
<b>SECTION III. BID DATA SHEET .....</b>	<b>3-1</b>
<b>SECTION IV. GENERAL CONDITIONS OF CONTRACT .....</b>	<b>4-1</b>
<b>SECTION V. SPECIAL CONDITIONS OF CONTRACT .....</b>	<b>5-1</b>
<b>SECTION VI. SPECIFICATIONS .....</b>	<b>6-1</b>
<b>SECTION VII. DRAWINGS .....</b>	<b>7-1</b>
<b>SECTION VIII. BILL OF QUANTITIES .....</b>	<b>8-1</b>
<b>SECTION IX. BIDDING FORMS .....</b>	<b>9-1</b>
<b>ANNEXES</b>	

## ***Section I. Invitation to Bid***



## INVITATION TO BID FOR THE CONSTRUCTION OF NORZAGARAY WATER SUPPLY SYSTEM IMPROVEMENT PROJECT

1. The LOCAL WATER UTILITIES ADMINISTRATION has received a Loan from the Asian Development Bank toward the cost of the Water District Development Sector Project (WDDSP), and it intends to apply part of the proceeds of this loan to payments under the contract for the Norzagaray Water Supply Improvement Project.
2. The Norzagaray Water District now invites bids for the pipelaying (3.25 kilometers uPVC pipes) with 125 meters steel pipes bridge crossing and other related works. Completion of the Works is required within twelve (12) months upon receipt of the Notice to Proceed. Bidders should have completed, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Sub-section 5, Section II. Instructions to Bidders and the corresponding Bid Data Sheet.
3. Bidding will be conducted in accordance with relevant procedures for open competitive bidding as specified in the IRR of RA 9184 (R.A. 9184), with some amendments, as stated in these bidding documents and is open to all bidders from eligible source countries as defined in the applicable procurement guidelines of ADB. The contract shall be awarded to the Lowest Calculated Responsive Bidder (LCRB) who was determined as such during post-qualification. The approved budget for the contract (ABC) is **PhP51,300,000.00**.
4. Interested bidders may obtain further information from the Norzagaray Water District and inspect the Bidding Documents at the address given below from 8:30 a.m. – 4:30 p.m. except during weekends and non-working holidays.
5. A complete set of Bidding Documents may be acquired by the interested bidders on **6 November 2020** but before **2:00 p.m. of 4 December 2020** from the address below and upon payment of the applicable fee for the bidding documents, in the amount of **Twenty Five Thousand Pesos (PhP25,000.00)**.

It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS), [www.philgeps.gov.ph](http://www.philgeps.gov.ph), and the website of the Norzagaray Water District, [www.norwd.gov.ph](http://www.norwd.gov.ph) provided that bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

6. The Norzagaray Water District will hold a Pre-Bid Conference on **18 November 2020** at **2:00 p.m.** at the NorWD Office, 1639 Pedro dela Merced Street, Barangay Poblacion, Norzagaray, Bulacan, which shall be open to all prospective bidders who obtained Bid Documents. Pre-bid Conference may be conducted in person, face-to-face through videoconferencing, webcasting, or similar technology, or a combination thereof.



# Norzagaray Water District

1639 P. Dela Merced St. Barangay Poblacion Norzagaray, Bulacan

7. Bids must be duly received by the BAC Secretariat at the address below on or before **2:00 p.m. on 4 December 2020**. All bids must be accompanied by a Bid Security in the amount and form as required in ITB Clause 18.1 of Section III. Bid Data Sheet.

Bids will be opened in the presence of the bidders' representatives who choose to attend at the address below. Late bids shall not be accepted.

8. The Norzagaray Water District reserves the right to accept or reject any bid, to annul the bidding process, and to reject all bids at any time prior to contract award, in accordance with Section 41 of RA 9184 and its IRR, without thereby incurring any liability to the affected bidder or bidders.
9. For further information, please refer to:

**Bids and Awards Committee Secretariat**  
NORZAGARAY WATER DISTRICT  
1639 Pedro dela Merced Street  
Barangay Poblacion  
Norzagaray, Bulacan 3013  
Telephone No.: (044) 913-9210 / 815-3964  
Facsimile No.: (044) 815-3964  
Email: norzagaray\_wd@yahoo.com  
Website address: www.norwd.gov.ph

**MR. LAZARO B. PASCUAL**  
BAC Chairperson

## ***Section II. Instructions to Bidders***

## TABLE OF CONTENTS

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



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29. Reservation Clause.....2-26

**F. AWARD OF CONTRACT ..... 2-27**

30. Contract Award.....2-27

31. Signing of the Contract .....2-27

32. Performance Security .....2-28

33. Notice to Proceed.....2-29

34. Protest Mechanism.....2-29

## A. General

### 1. Scope of Bid

- 1.1. The Procuring Entity named in the **BDS**, invites bids for the construction of Works, as described in
- 1.2.
- 1.3.
- 1.4.
- 1.5.
- 1.6.
- 1.7. Section VI. Specifications.
- 1.8. The name, identification, and number of lots specific to this bidding are provided in the **BDS**. The contracting strategy and basis of evaluation of lots is described in **ITB** Clause 27.
- 1.9. The successful Bidder will be expected to complete the Works by the intended completion date specified in **SCC Clause** 1.17.

### 2. Source of Funds

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

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

- 3.1. Unless otherwise specified in the **BDS**, the Procuring Entity, as well as bidders and contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. In pursuance of this policy, the Funding Source:
  - (a) defines, for purposes of this provision, the terms set forth below as follows:
    - (i) "corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves, others, or induce others to do so, by misusing the position in which they are placed, and includes the offering, giving, receiving, or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution; entering, on behalf of the Procuring Entity, into any contract or transaction manifestly and grossly disadvantageous to

the same, whether or not the public officer profited or will profit thereby, and similar acts as provided in Republic Act 3019;

- (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Procuring Entity, and includes collusive practices among Bidders (prior to or after Bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the Procuring Entity of the benefits of free and open competition;
  - (iii) "collusive practices" means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Procuring Entity, designed to establish bid prices at artificial, non-competitive levels; and
  - (iv) "coercive practices" means harming or threatening to harm, directly or indirectly, persons, or their property to influence their participation in a procurement process, or affect the execution of a contract;
  - (v) "obstructive practice" is
    - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to an administrative proceedings or investigation or making false statements to investigators in order to materially impede an administrative proceedings or investigation of the Procuring Entity or any foreign government/foreign or international financing institution into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the administrative proceedings or investigation or from pursuing such proceedings or investigation; or
    - (bb) acts intended to materially impede the exercise of the inspection and audit rights of the Procuring Entity or any foreign government/foreign or international financing institution herein.
- (b) will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the Contract; and
  - (c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded Contract funded by the Funding Source if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing or, or in executing, a Contract funded by the Funding Source.

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

#### **4. Conflict of Interest**

- 4.1. All Bidders found to have conflicting interests shall be disqualified to participate in the procurement at hand, without prejudice to the imposition of appropriate administrative, civil, and criminal sanctions. A Bidder may be considered to have conflicting interests with another Bidder in any of the events described in paragraphs (a) through (c) and a general conflict of interest in any of the circumstances set out in paragraphs (d) through (g) below:
  - (a) A Bidder has controlling shareholders in common with another Bidder;
  - (b) A Bidder receives or has received any direct or indirect subsidy from any other Bidder;
  - (c) A Bidder has the same legal representative as that of another Bidder for purposes of this Bid;
  - (d) A Bidder has a relationship, directly or through third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder or influence the decisions of the Procuring Entity regarding this bidding process;
  - (e) A Bidder submits more than one bid in this bidding process. However, this does not limit the participation of subcontractors in more than one bid;
  - (f) A Bidder who participated as a consultant in the preparation of the design or technical specifications of the goods and related services that are the subject of the bid; or
  - (g) A Bidder who lends, or temporarily seconds, its personnel to firms or organizations which are engaged in consulting services for the preparation related to procurement for or implementation of the project, if the personnel would be involved in any capacity on the same project.
- 4.2. In accordance with Section 47 of the IRR of RA 9184, all Bidding Documents shall be accompanied by a sworn affidavit of the Bidder that it is not related to the Head of the Procuring Entity (HoPE), members of the Bids and Awards Committee (BAC), members of the Technical Working Group (TWG), members of the BAC Secretariat, the head of the Project Management Office

(PMO) or the end-user unit, and the project consultants, by consanguinity or affinity up to the third civil degree. On the part of the Bidder, this Clause shall apply to the following persons:

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

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

## 5. Eligible Bidders

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

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

ownership or interest shall be based on the contributions of each of the members of the joint venture as specified in their JVA.

- 5.2. The Procuring Entity may also invite foreign bidders when provided for under any Treaty or International or Executive Agreement as specified in the **BDS**.
- 5.3. Government owned or controlled corporations (GOCCs) may be eligible to participate only if they can establish that they (a) are legally and financially autonomous, (b) operate under commercial law, and (c) are not attached agencies of the Procuring Entity.
- 5.4. (a) The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the Philippine Statistics Authority (PSA) consumer price index. However, contractors under Small A and Small B categories without similar experience on the contract to be bid may be allowed to bid if the cost of such contract is not more than the Allowable Range of Contract Cost (ARCC) of their registration based on the guidelines as prescribed by the PCAB.  
  
(b) For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the **BDS**.

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

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

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

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

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

## 6. Bidder's Responsibilities

- 6.1. The Bidder or its duly authorized representative shall submit a sworn statement in the form prescribed in Bill of Quantities

6.2. WORK ITEM	UNIT	QTY	UNIT PRICE (PhP)	TOTAL PRICE (PhP)
<p><b>I. UNIT BID ITEMS FOR PIPELINES AND RELATED CIVIL WORKS</b></p> <p>NOTE: Quantities Estimated are for the purposes of comparing bids. Payment will be based on actual quantities furnished, installed or constructed.</p>				
<p><b>IA. PIPELINES</b> - Furnish and install pipes complete including joints, fittings, and warning/detection tapes, perform excavation of any type of soil excluding rock/boulders/hard limestone with pipe cover of not less than 1.0meters, measured to existing ground surface, sump pumping, pipe supports, thrust blocks, backfilling using suitable materials from the trench, disposal of surplus materials where directed, compaction and hydro testing in accordance with Specifications and Drawings. The cost shall include provision and maintaining enough safety barricades, bollards, warning signs/lights and steel plates to cover open trenches when required and in accordance with the Plans and Technical Specifications.</p> <p>Note 1: Quantity = length in meters, <b>excluding</b> length of valves and assemblies under Items B</p> <p>Note 2: Thrust block is not required for welded steel pipes.</p> <p>Note3: If below-ground laying is not suitable to actual field conditions, above-ground pipe installation shall be used.</p> <p>Note 4: All other interconnections not included in Lump Sum Bid Items for Interconnection shall be included under unit bid items for pipelines.</p>				
<p><b>IA.1 Transmission/Distribution Pipelines - uPVC Pipes Series 8 (class 150 or 150 psi normal working pressure) machine-installed metal reinforced integrated epdm gasket seal.</b></p>				
1.	400 mm (16”) diameter uPVC pipes	LM	3,252	
<p><b>IA.2 Disinfect all proposed pipelines as specified</b></p>				
1.	400 mm (16”) diameter uPVC pipes	LM	3,252	
<p><b>ST-IA Sub-total for Pipelines</b></p>				
<p><b>Signature of Bidder:</b> _____ <b>Date:</b> _____</p>				
<p><b>IB. VALVES</b> – Furnish and install gate or butterfly or pressure reducing valves complete with fittings on proposed pipelines with valve box cover, concrete pads and perform all necessary earthworks,</p>				

6.2. WORK ITEM		UNIT	QTY	UNIT PRICE (PhP)	TOTAL PRICE (PhP)
backfill, compaction and disposal of excess materials in accordance with the Plans & Specifications. <i>Note 1: Quantity = number of valves</i>					
<b>IB.1 Gate or Butterfly Valves with flanges or combination flanges</b> (Refer to details as shown in the Drawings)					
1.	400 mm Butterfly valves	set	2		
2.	250 mm Gate valves	set	1		
<b>IB.2 Air Release Valve with flanges</b>					
1.	75 mm	Set	7		
<b>IB.3 Blow-off Valve</b>					
1.	150 mm	Set	6		
<b>ST-IB Sub Total for Gate Valves, Air Release Valves, and Blow-off Valves</b>					
<b>IC. BRIDGE CROSSING</b> – Furnish all materials, labor, tools, and equipment necessary to construct all pipe crossings of the proposed pipelines complete including installation of pipes, fittings, valves (if needed), thrust blocks, abutments, piers, coffering, and all other works including testing and disinfecting as specified and shown on the Drawings. Refer to the Drawings for limit of Lump Sum Bid.					
<b>IC.1</b>	Bridge Crossing (400 mm dia. Steel Pipe)	LS	1		
<b>ST-IC Sub Total for Bridge Crossing</b>					
<b>Signature of Bidder:</b>			<b>Date:</b>		
<b>ID. DEMOLITION AND RESTORATION</b> - Furnish labor tools and equipment necessary to demolish pavement (roads, sidewalk and driveways) and construct and/or restore pavement and/or structures including the hauling and disposal of discard materials to approved dumpsite acceptable to the					



6.2. WORK ITEM		UNIT	QTY	UNIT PRICE (PhP)	TOTAL PRICE (PhP)
<p>Engineer. The cost of cutting/sawing the pavement as well as supply and preparation of the base course when required shall be included in the unit bid price.</p> <p>Note: Payment will be based on the volume of concrete pavement restored regardless of the thickness of pavement(s) demolished. Computation of volume of restoration shall also consider the width in excess of the maximum allowable trench width. Thickness of base course and or sub-base shall not be included in the measurement.</p>					
<b>ID.1</b>	Demolition	m <sup>3</sup>	38		
<b>ID.2</b>	Restoration	m <sup>3</sup>	38		
<b>ST-ID Sub Total for Demolition and Restoration</b>					
<b>Signature of Bidder:</b>		<b>Date:</b>			

<b>SUMMARY FOR PART I - PRICES FOR PIPELINES AND RELATED CIVIL WORKS</b>			
			<b>TOTAL PRICE (Pesos)</b>
<b>IA</b>	<b>PIPELINES</b>		
<b>IB</b>	<b>VALVES</b>		
<b>IC</b>	<b>BRIDGE CROSSING</b>		
<b>ID</b>	<b>DEMOLITION AND RESTORATION</b>		
	<b>TOTAL PART I CARRIED FORWARD TO BID PRICE SUMMARY</b>		
<p><b>Signature of Bidder:</b> _____ <b>Date:</b> _____</p>			

<b>Pay Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Qty.</b>	<b>Unit Price (Pesos)</b>	<b>Total Amount (Pesos)</b>
<b>PART II – LUMP SUM BID ITEMS FOR ELECTRO-MECHANICAL WORKS</b>					
<b>PUMPING FACILITIES – Furnish, install, test and commission electro-mechanical equipment such as submersible pump, controls, electric motor set and accessories and all appurtenances as specified and shown on the drawings.</b>					
Note: Quantities estimated are for the purpose of comparing bids. Payments will be based on actual quantities furnished, installed or constructed.					
<b>IIA</b>	<b>Submersible Pump Set – 100 Hp, High Efficiency</b>	<b>LS</b>	<b>2</b>		
<b>ST-IIA Sub Total for Pumping Facilities</b>					

<b>SUMMARY FOR PART II – LUMP SUM BID PRICE ITEMS FOR ELECTRO-MECHANICAL WORKS</b>			
			<b>TOTAL PRICE (Pesos)</b>
<b>IIA</b>	<b>PUMPING FACILITIES</b>		
	<b>TOTAL PART III CARRIED FORWARD TO BID PRICE SUMMARY</b>		
<b>Signature of Bidder:</b>		<b>Date:</b>	

WORK ITEM		QTY	UNIT or LUMP SUM	TOTAL PRICE (PhP)
<p><b>PART III. SPECIAL ITEMS</b>– The bidder shall complete the following forms by inserting the quantity and price amounts (in figures) for each in the space provided. The amount shall represent the true breakdown of the lump sum bid price indicated below.</p> <p><b>Note:</b> Bid cost for this item shall be for the period of <b>fourteen (14) to accommodate any suspension period/time extension and/or contract closing period.</b></p>				
<p><b>IIIA GENERAL REQUIREMENTS - CONTRACTOR'S MOBILIZATION, DEMOBILIZATION, PROJECT ORGANIZATION, TEMPORARY FACILITIES, PERMITS, FEE, GUARANTEES, BONDS, ETC.</b></p>				
IIIA.1	Mobilization and Demobilization	1	LS	
IIIA.2	Temporary Site Facilities Project Organization and Office Maintenance	14	months	
IIIA.3	Permits, Fees, Guarantees, Bonds, Insurances, etc.	1	LS	
IIIA.4	Occupational Safety and Health Program	1	LS	
IIIA.5	Environmental and Social Measures	1	LS	
<p><b>ST-IIIA Sub Total for General Requirements, Contractor's Temporary Site Facilities, Project Organization, Resource Movement, Etc.</b></p>				
<b>IIIB</b>	<b>PROJECT ENGINEER'S OFFICE INCLUDING OFFICE SUPPLIES AND EQUIPMENT</b>			
IIIB.1	Project Engineer's Office	14	months	
IIIB.2	Office Supplies and Equipment (see Appendix A)	1	LS	
<p><b>ST-IIIB Sub Total for Project Engineer's Office, Office Supplies and Equipment</b></p>				
<p><b>Signature of Bidder:</b></p>		<p><b>Date:</b></p>		

WORK ITEM		QTY	UNIT or LUMP SUM	TOTAL PRICE (PhP)
<b>IIIC PROJECT BILLBOARDS: PROVIDE AND INSTALL FIVE (5) PROJECT SIGNS AND ONE (1) COA SIGN BOARD</b>				
IIIC.1	Project Signs	5 sets		
IIIC.2	COA Sign Board	1 set		
<b>ST-IIIC Sub Total for Project Billboards: Provide and Install Five (5) Project Signs And One (1) COA Sign Board</b>				
<b>Signature of Bidder:</b>		<b>Date:</b>		

SUMMARY FOR PART III – SPECIAL ITEMS			
			TOTAL PRICE (Pesos)
<b>IIIA</b>	<b>GENERAL REQUIREMENTS, CONTRACTOR'S TEMPORARY SITE FACILITIES, PROJECT ORGANIZATION, RESOURCE MOVEMENT, , ETC.</b>		
<b>IIIB</b>	<b>PROJECT ENGINEER'S OFFICE, ETC.</b>		
<b>IIIC</b>	<b>PROJECT BILLBOARDS:  PROVIDE AND INSTALL FIVE (5) PROJECT SIGNS AND ONE (1) COA SIGN BOARD</b>		
	<b>TOTAL PART III CARRIED FORWARD TO BID PRICE SUMMARY</b>		
<b>Signature of Bidder:</b>		<b>Date:</b>	

### TOTAL BID PRICE SUMMARY

	WORK ITEM	TOTAL PRICE (PHP)
<b>PART 1</b>	<b>PIPELINES AND RELATED CIVIL WORKS</b>	
<b>PART II</b>	<b>ELECTRO-MECHANICAL WORKS</b>	
<b>PART III</b>	<b>SPECIAL ITEMS</b>	
<b>I. TOTAL OF PART I TO III</b>		
<b>TOTAL BID PRICE (I + III)</b>		
<b>In words:</b>		
_____		
_____		
_____ (_____)		

**Signature of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

### BREAKDOWN OF PRICES

The Bidder shall completely fill up the Bidder's Breakdown of the Unit Price and Lump Sum Bids herein below provided by inserting the amount in figures for each item in the space provided. The Breakdown shall be submitted together with and shall form part of the Bid Form. The amounts shall represent a true breakdown of the bid prices of the Unit Price and Lump Sum Bids shown in the Bid Form in Philippine Peso. These amounts will be used in preparing monthly estimates. All breakdown should be balanced and consistent with the bid amount in Section VIII – Bill of Quantities. An UNBALANCED BREAKDOWN WILL NOT BE ACCEPTABLE. The total amount indicated in the form below for each Unit Price and Lump Sum Bid Items must equal the bid price shown in the Bid Form.

#### UNIT PRICE BID ITEMS

##### I. PIPELINES AND RELATED CIVIL WORKS

##### IA. PIPELINES

The bidder shall complete the following form by inserting the price amounts (in figures) for supply and installation of pipes up to hydrotesting. Disinfection of pipes shall be paid as a separate pay item.

Bid Item	Unit Price (per LM) Materials			Unit Price Installation (per LM)			Total Unit Price
	a/ Pipes	a/ Fittings	Others	Excavation	Laying/ Jointing	Backfilling, Compaction, Hydrotesting	
<b>Transmission/Distribution Line (uPVC Pipes with Integrated Fixed Seal, Series 8)</b>							
400mm Ø							
<b>Transmission/Distribution Pipelines</b>							
400mm Ø							

Note: Others include detection tapes, thrust blocks, warning lights and steel plates, etc. Laying cost includes local transportation cost to the site. For steel or metal pipes, no detection tapes are required.

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

The bidder shall complete the following form by inserting the price amounts (in figures) for the supply of materials and installation (**per unit cost**).

### IB.1 GATE/BUTTERFLY VALVES

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE SUPPLY a/ (3)	UNIT PRICE INSTALLATION (4)	BID ITEM TOTAL UNIT PRICE (5)
400 mm Ø	2pcs			
250mm Ø	1 pc			

Note : a/ include fittings & other expenses such as taxes, clearance and handling up to the construction site.

### IB.2 AIR RELEASE FLANGES

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE SUPPLY a/ (3)	UNIT PRICE INSTALLATION (4)	BID ITEM TOTAL UNIT PRICE (5)
75 mm Ø	7pcs			

Note : a/ include fittings & other expenses such as taxes, clearance and handling up to the construction site.

### IB.3 BLOW-OFF VALVES

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE SUPPLY a/ (3)	UNIT PRICE INSTALLATION (4)	BID ITEM TOTAL UNIT PRICE (5)
150 mm Ø	6pcs			

Note : a/ include fittings & other expenses such as taxes, clearance and handling up to the construction site.

Signature and Official Stamp of Bidder: \_\_\_\_\_ Date: \_\_\_\_\_



**IC. BRIDGE CROSSING**

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE SUPPLY a/ (3)	UNIT PRICE INSTALLATION (4)	BID ITEM TOTAL UNIT PRICE (5)
400 mm Ø Steel pipe	LS			

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**ID. DEMOLITION AND RESTORATION****ID.1 PAVEMENT DEMOLITION**

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE LABOR (3)	UNIT PRICE EQUIPMENT (4)	BID ITEM TOTAL UNIT PRICE (5)
Pavement Demolition				
Restoration				

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## II. ELECTRO-MECHANICAL EQUIPMENT

For the Pumping Facilities, the bidder shall complete the following form by inserting the quantity and price amount (in figures) for each item, in the space provided. The amount shall represent the true breakdown of the bid price for lump sum shown under Part II of the bid form. Items not shown in the breakdown hereunder, but shown on the drawings shall be specified and added by the bidder, items not applicable shall be deleted.

Description	Quantity	Unit Installed Cost	Total Amount
Submersible Pump with Cathodic Protection, 100HP	2 units		
Valves and Accessories <ol style="list-style-type: none"> <li>1. Cooling Shroud 0.40m Ø X 2.75M long with Stabilizer (2 units)</li> <li>2. 200mm Ø Butterfly Valve (4 units)</li> <li>3. 200mm Ø Rubber Coupling (4 units)</li> <li>4. 100mm Ø Pressure Gauge (2 units)</li> <li>5. Pressure Transducer (2 units)</li> <li>6. Submersible Cable (20m)</li> <li>7. 250mm Ø Steel Pipe (1 pc)</li> <li>8. 400mm Ø x 250mm Ø Tee (2 pcs)</li> <li>9. 250mm Ø Butterfly Valve (2 pcs)</li> <li>10. 250mm Ø x 200mm Ø Reducer (2 pcs)</li> <li>11. 25 mm Ø Air Release Valve (1 pc)</li> </ol>	1 lot		
Motor Control, VFD, soft starter Variable Frequency Drive 100HP 460Vac 3-Phase, 60Hz	1 lot		
Electrical <ol style="list-style-type: none"> <li>1. Control Panel Component               <ol style="list-style-type: none"> <li>1.1 Feeder Line (100mm<sup>2</sup>) Estimate 30 mts (1 set)</li> <li>1.2 Service Entrance Main Breaker 600A (1 set)</li> <li>1.3 Manual Transfer Switch 500A (1 set)</li> <li>1.4 Junction Box (cable Tray) (1 lot)</li> <li>1.5 Power Cable (60mm<sup>2</sup>) Estimate 40 mts (2 sets)</li> <li>1.6 Conduits (PVC 90mm) Estimate 30 mts (2 sets)</li> </ol> </li> </ol>	1 lot		

<p>1.7 Conduits Accessories (elbows, adaptor, solvent) (2 sets)                  1.8 Conduits (FLT 90mm) (2 sets)                  1.9 Conduits Accessories (FLT adaptor) (2 sets)</p> <p>2. Control Panel Component</p> <p>2.1 Control Panel (1200L x 1000W x 500W) (1 lot)                  Includes Variable Frequency Drive 100HP 460Vac 3-Phase, 60Hz. Complete with circuit breaker, magnetic contactor with start/stop push buttons, pilot lights, liquid level control relay with electrodes, overload relay, under/over voltage relay, lightning arrester, with phase failure and phase imbalance relay, ammeter, voltmeter, and HOA selector switch mounted in enclosure</p> <p>2.2 Control Panel (1000L x 1000W x 400W) (1 lot)                  Includes Softstarter 100HP 460Vac 3-Phase, 60Hz. Complete with circuit breaker, magnetic contactor with start/stop push buttons, pilot lights, liquid level control relay with electrodes, overload relay, under/over voltage relay, lightning arrester, with phase failure and phase imbalance relay, ammeter, voltmeter, and HOA selector switch mounted in enclosure</p>			
<p>Concrete Vault</p>	<p>1 lot</p>		

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**III. SPECIAL ITEMS****IIIA Contractor’s Mobilization, Demobilization, Project Organization, Temporary Facilities, Permits, Fee, Guarantees, Bonds, etc.**

<b>No.</b>	<b>Description</b>	<b>Quantity/ Unit</b>	<b>Unit Cost</b>	<b>Total Amount</b>
1.	Mobilization/Demobilization Movement	LS		
2.	Temporary Site Facilities, including bunk houses, storage, utilities and maintenance	14 mos		
3.	Project Organization, Equipment	LS		
4.	Office Equipment, Supplies, Furnitures, Consumables, etc.	LS		
5.	Permits, Fees, Bonds, Guarantees, Warrantees and Insurances	LS		
6.	Occupational Safety and Health Program	LS		
7.	Environmental and Social Measures	LS		
<b>IIIA</b>	<b>SUB-TOTAL IIIA</b>			

**IIIB Provide and Maintain Project Engineer’s Office**

<b>No.</b>	<b>Description</b>	<b>Quantity/ Unit</b>	<b>Unit Cost</b>	<b>Total Amount</b>
1.	Provide and Maintain Project Engineer’s Office. All monthly utility bills, cable, internet connection/wi-fi shall be included in this bid item.	14 mos		
2.	Provide furniture, computers, office equipment, supplies, printer ink, consumables, etc. for the duration of the contract. See Appendix A for specific requirements.	LS		
<b>IIIB</b>	<b>SUB-TOTAL IIIB</b>			
<b>Signature and Official Stamp of Bidder:</b> _____ <b>Date:</b> _____				

**III.C Project Billboards: Provide, Install, and Maintain Project and COA Sign Boards**

	Description	Quantity/ Unit	Unit Installed Cost	Total Amount
1.	Project Signs	5 sets		
2.	COA Sign Board	1 set		
<b>III.C</b>	<b>SUB-TOTAL FOR III.C</b>			

**APPENDIX A**

Supply the following office furniture, equipment, computers and office supplies.

Item	Description	Specification	Qty	Unit
1	Desktop computer set w/ computer table and chair	Latest Model, core i9 1 TB GB Hard Drive (min.), 8 GB RAM, AVR, OS – Windows 10 w/ latest Microsoft Office Software, AutoCad, latest anti-virus and Wi-fi ready as approved and accepted by the Engineer	1	set
2	Printer	Three-in-one, minimum (printer, copier & scanner) latest model as approved/accepted by the Engineer.	1	unit
3	Uninterrupted Power Supply (UPS)	Latest model as approved by the Engineer	1	unit
4	Laptop	Latest Model, 1 TeraByte Hard Drive, 8 GB RAM, OS – Windows 10 with latest Microsoft Office Software, AutoCad, latest anti-virus and Wi-fi ready as approved and accepted by the Engineer	1	unit

Signature and Official Stamp of Bidder: \_\_\_\_\_ Date: \_\_\_\_\_

5	Flash Drive/USB	64 GB Capacity	2	pcs
6	Steel Filing Cabinet	Four (4) Drawers	1	pc
7	Office Table	Executive Table as approved by the Engineer	3	pcs
8	Office Chairs	Heavy duty as approved by the Engineer	3	pcs
9	Conference Table and Chairs	8-seater	1	set
10	Refrigerator	6 cu.ft. (min.)	1	unit
11	Aircon	1 Hp capacity (min)	2	units
12	Water Dispenser	Standard (hot and cold)	1	unit
13	Stand Fan	Heavy Duty (adjustable)	2	units
14	Gas Stove w/ Gas Tank	2 Burner	1	set
14	Beds with complete beddings, pillows and blankets	Semi double bed as approved by the Engineer	3	sets
13	Kitchen wares	Complete set as approved by the Engineer	1	lot

The Field Engineer's Office shall be 60 sq.m. (minimum) floor area with living room (will serve as office space), two (2) bedrooms, bathroom and kitchen. All utilities, such as rental, water, power, telephone and internet connection among others shall be borne by the Contractor and to be included in its Bid.

Office Consumables to be supplied by the Contractor for the duration of the Contract:

1. Bond Papers (A4, long and short sizes)
2. Calculators (2 pcs)
3. Ball Pens (black, blue and red)
4. Pencil
5. Folders and Brown Envelopes
6. Printer Ink (black and color)
7. Other Office Consumables, as required by the Engineer

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

6.3. Section IX. Bidding Forms as required in **ITB** Clause 12.1(b)(iii).

6.4. The Bidder is responsible for the following:

- (a) Having taken steps to carefully examine all of the Bidding Documents;
- (b) Having acknowledged all conditions, local or otherwise, affecting the implementation of the contract;
- (c) Having made an estimate of the facilities available and needed for the contract to be bid, if any;
- (d) Having complied with its responsibility to inquire or secure Supplemental/Bid Bulletin/s as provided under **ITB** Clause 10.4.
- (e) Ensuring that it is not “blacklisted” or barred from bidding by the GoP or any of its agencies, offices, corporations, or LGUs, including foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the GPPB;
- (f) Ensuring that each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
- (g) Authorizing the HoPE or its duly authorized representative/s to verify all the documents submitted;
- (h) Ensuring that the signatory is the duly authorized representative of the Bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract, accompanied by the duly notarized Special Power of Attorney, Board/Partnership Resolution, or Secretary’s Certificate, whichever is applicable;



- (i) Complying with the disclosure provision under Section 47 of RA 9184 and its IRR in relation to other provisions of RA 3019;
- (j) Complying with existing labor laws and standards, in the case of procurement of services. Moreover, bidder undertakes to:

- (i) Ensure the entitlement of workers to wages, hours of work, safety and health and other prevailing conditions of work as established by national laws, rules and regulations; or collective bargaining agreement; or arbitration award, if and when applicable.

In case there is a finding by the Procuring Entity or the DOLE of underpayment or non-payment of workers' wage and wage-related benefits, bidder agrees that the performance security or portion of the contract amount shall be withheld in favor of the complaining workers pursuant to appropriate provisions of Republic Act No. 9184 without prejudice to the institution of appropriate actions under the Labor Code, as amended, and other social legislations.

- (ii) Comply with occupational safety and health standards and to correct deficiencies, if any.

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

- (iii) Inform the workers of their conditions of work, labor clauses under the contract specifying wages, hours of work and other benefits under prevailing national laws, rules and regulations; or collective bargaining agreement; or arbitration award, if and when applicable, through posting in two (2) conspicuous places in the establishment's premises; and

- (k) Ensuring that it did not give or pay, directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the;

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

- 6.5. The Bidder, by the act of submitting its bid, shall be deemed to have inspected the site, determined the general characteristics of the contract works and the conditions for this Project and examine all instructions, forms, terms, and project requirements in the Bidding Documents.
- 6.6. It shall be the sole responsibility of the prospective bidder to determine and to satisfy itself by such means as it considers necessary or desirable as to all matters pertaining to this Project, including: (a) the location and the nature of the contract, project, or work; (b) climatic conditions; (c) transportation facilities; (c) nature and condition of the terrain, geological conditions at the site

communication facilities, requirements, location and availability of construction aggregates and other materials, labor, water, electric power and access roads; and (d) other factors that may affect the cost, duration and execution or implementation of the contract, project, or work.

- 6.7. The Procuring Entity shall not assume any responsibility regarding erroneous interpretations or conclusions by the prospective or eligible bidder out of the data furnished by the procuring entity. However, the Procuring Entity shall ensure that all information in the Bidding Documents, including supplemental/bid bulletins issued are correct and consistent.
- 6.8. 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.
- 6.9. 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.
- 6.10. The Bidder should note that the Procuring Entity will accept bids only from those that have paid the applicable fee for the Bidding Documents at the office indicated in the Invitation to Bid.

## 7. Origin of Goods and Services

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

## 8. Subcontracts

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

## **B. Contents of Bidding Documents**

### **9. Pre-Bid Conference**

- 9.1. (a) If so specified in the **BDS**, a pre-bid conference shall be held at the venue and on the date indicated therein, to clarify and address the Bidders' questions on the technical and financial components of this Project.
- (b) The pre-bid conference shall be held at least twelve (12) calendar days before the deadline for the submission of and receipt of bids, but not earlier than seven (7) calendar days from the posting of the Invitation to Bid/Bidding Documents in the PhilGEPS website. If the Procuring Entity determines that, by reason of the method, nature, or complexity of the contract to be bid, or when international participation will be more advantageous to the GoP, a longer period for the preparation of bids is necessary, the pre-bid conference shall be held at least thirty (30) calendar days before the deadline for the submission and receipt of bids, as specified in the **BDS**.
- 9.2 Bidders are encouraged to attend the pre-bid conference to ensure that they fully understand the Procuring Entity's requirements. Non-attendance of the Bidder will in no way prejudice its bid; however, the Bidder is expected to know the changes and/or amendments to the Bidding Documents as recorded in the minutes of the pre-bid conference and the Supplemental/Bid Bulletin. The minutes of the pre-bid conference shall be recorded and prepared not later than five (5) calendar days after the pre-bid conference. The minutes shall be made available to prospective bidders not later than five (5) days upon written request.
- 9.3 Decisions of the BAC amending any provision of the bidding documents shall be issued in writing through a Supplemental/Bid Bulletin at least seven (7) calendar days before the deadline for the submission and receipt of bids.

### **10. Clarification and Amendment of Bidding Documents**

- 10.1. Prospective bidders may request for clarification(s) on and/or interpretation of any part of the Bidding Documents. Such a request must be in writing and submitted to the Procuring Entity at the address indicated in the **BDS** at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.
- 10.2. The BAC shall respond to the said request by issuing a Supplemental/Bid Bulletin, to be made available to all those who have properly secured the Bidding Documents, at least seven (7) calendar days before the deadline for the submission and receipt of Bids.
- 10.3. Supplemental/Bid Bulletins may also be issued upon the Procuring Entity's initiative for purposes of clarifying or modifying any provision of the Bidding Documents not later than seven (7) calendar days before the deadline for the submission and receipt of Bids. Any modification to the Bidding Documents shall be identified as an amendment.

10.4. Any Supplemental/Bid Bulletin issued by the BAC shall also be posted in the PhilGEPS and the website of the Procuring Entity concerned, if available, and at any conspicuous place in the premises of the Procuring Entity concerned. It shall be the responsibility of all Bidders who have properly secured the Bidding Documents to inquire and secure Supplemental/Bid Bulletins that may be issued by the BAC. However, Bidders who have submitted bids before the issuance of the Supplemental/Bid Bulletin must be informed and allowed to modify or withdraw their bids in accordance with **ITB** Clause 23.

### **C. Preparation of Bids**

#### **11. Language of Bids**

The eligibility requirements or statements, the bids, and all other documents to be submitted to the BAC must be in English. If the eligibility requirements or statements, the bids, and all other documents submitted to the BAC are in foreign language other than English, it must be accompanied by a translation of the documents in English. The documents shall be translated by the relevant foreign government agency, the foreign government agency authorized to translate documents, or a registered translator in the foreign bidder's country; and shall be authenticated by the appropriate Philippine foreign service establishment/post or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. The English translation shall govern, for purposes of interpretation of the bid.

#### **12. Documents Comprising the Bid: Eligibility and Technical Components**

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

(a) Eligibility Documents –

Class “A” Documents

- (i) PhilGEPS Certificate of Registration and Platinum Membership in accordance with Section 8.5.2 of the IRR. For procurement to be performed overseas, it shall be subject to the Guidelines to be issued by the GPPB.
- (ii) Statement of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; and

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

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

- (ii.1) name of the contract;

- (ii.2) date of the contract;
- (ii.3) contract duration;
- (ii.4) owner’s name and address;
- (ii.5) nature of work;
- (ii.6) contractor’s role (whether sole contractor, subcontractor, or partner in a JV) and percentage of participation;
- (ii.7) total contract value at award;
- (ii.8) date of completion or estimated completion time;
- (ii.9) total contract value at completion, if applicable;
- (ii.10) percentages of planned and actual accomplishments, if applicable; and
- (ii.11) value of outstanding works, if applicable.

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

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

Class “B” Documents

- (v) If applicable, Joint Venture Agreement (JVA) in accordance with RA 4566.

(b) Technical Documents –

- (i) Bid security in accordance with **ITB** Clause 18. If the Bidder opts to submit the bid security in the form of:
  - (i.1) a bank draft/guarantee or an irrevocable letter of credit issued by a foreign bank, it shall be accompanied by a confirmation from a Universal or Commercial Bank; or

- (i.2) a surety bond accompanied by a certification coming from the Insurance Commission that the surety or insurance company is authorized to issue such instruments.
- (ii) Project Requirements, which shall include the following:
  - (ii.1) Organizational chart for the contract to be bid;
  - (ii.2) List of contractor’s personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data. These personnel must meet the required minimum years of experience set in the **BDS**; and
  - (ii.3) List of contractor’s major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, which must meet the minimum requirements for the contract set in the **BDS**; and
- (iii) Sworn statement in accordance with Section 25.3 of the IRR of RA 9184 and using the form prescribed in Bill of Quantities

(iv) WORK ITEM	UNIT	QTY	UNIT PRICE (PhP)	TOTAL PRICE (PhP)
<p><b>II. UNIT BID ITEMS FOR PIPELINES AND RELATED CIVIL WORKS</b></p> <p>NOTE: Quantities Estimated are for the purposes of comparing bids. Payment will be based on actual quantities furnished, installed or constructed.</p>				
<p><b>IA. PIPELINES</b> - Furnish and install pipes complete including joints, fittings, and warning/detection tapes, perform excavation of any type of soil excluding rock/boulders/hard limestone with pipe cover of not less than 1.0meters, measured to existing ground surface, sump pumping, pipe supports, thrust blocks, backfilling using suitable materials from the trench, disposal of surplus materials where directed, compaction and hydro testing in accordance with Specifications and Drawings. The cost shall include provision and maintaining enough safety barricades, bollards, warning signs/lights and steel plates to cover open trenches when required and in accordance with the Plans and Technical Specifications.</p> <p>Note 1: Quantity = length in meters, <b>excluding</b> length of valves and assemblies under Items B</p> <p>Note 2: Thrust block is not required for welded steel pipes.</p> <p>Note3: If below-ground laying is not suitable to actual field conditions, above-ground pipe installation shall be used.</p>				

(iv) WORK ITEM	UNIT	QTY	UNIT PRICE (PhP)	TOTAL PRICE (PhP)
Note 4: All other interconnections not included in Lump Sum Bid Items for Interconnection shall be included under unit bid items for pipelines.				
<b>IA.1 Transmission/Distribution Pipelines - uPVC Pipes Series 8 (class 150 or 150 psi normal working pressure) machine-installed metal reinforced integrated epdm gasket seal.</b>				
2.	400 mm (16") diameter uPVC pipes	LM	3,252	
<b>IA.2 Disinfect all proposed pipelines as specified</b>				
1.	400 mm (16") diameter uPVC pipes	LM	3,252	
<b>ST-IA Sub-total for Pipelines</b>				
<p><b>Signature of Bidder:</b> _____ <b>Date:</b> _____</p>				
<p><b>IB. VALVES</b> – Furnish and install gate or butterfly or pressure reducing valves complete with fittings on proposed pipelines with valve box cover, concrete pads and perform all necessary earthworks, backfill, compaction and disposal of excess materials in accordance with the Plans &amp; Specifications.  <i>Note 1: Quantity = number of valves</i></p>				
<p><b>IB.1 Gate or Butterfly Valves with flanges or combination flanges</b>  (Refer to details as shown in the Drawings)</p>				
1.	400 mm Butterfly valves	set	2	
2.	250 mm Gate valves	set	1	
<b>IB.2 Air Release Valve with flanges</b>				
1.	75 mm	Set	7	
<b>IB.3 Blow-off Valve</b>				
1.	150 mm	Set	6	

(iv) WORK ITEM		UNIT	QTY	UNIT PRICE (PhP)	TOTAL PRICE (PhP)
<b>ST-IB Sub Total for Gate Valves, Air Release Valves, and Blow-off Valves</b>					
<b>IC. BRIDGE CROSSING</b> – Furnish all materials, labor, tools, and equipment necessary to construct all pipe crossings of the proposed pipelines complete including installation of pipes, fittings, valves (if needed), thrust blocks, abutments, piers, coffering, and all other works including testing and disinfecting as specified and shown on the Drawings. Refer to the Drawings for limit of Lump Sum Bid.					
<b>IC.1</b>	Bridge Crossing (400 mm dia. Steel Pipe)	LS	1		
<b>ST-IC Sub Total for Bridge Crossing</b>					
<b>Signature of Bidder:</b>		<b>Date:</b>			
<b>ID. DEMOLITION AND RESTORATION</b> - Furnish labor tools and equipment necessary to demolish pavement (roads, sidewalk and driveways) and construct and/or restore pavement and/or structures including the hauling and disposal of discard materials to approved dumpsite acceptable to the Engineer. The cost of cutting/sawing the pavement as well as supply and preparation of the base course when required shall be included in the unit bid price.					
Note: Payment will be based on the volume of concrete pavement restored regardless of the thickness of pavement(s) demolished. Computation of volume of restoration shall also consider the width in excess of the maximum allowable trench width. Thickness of base course and or sub-base shall not be included in the measurement.					
<b>ID.1</b>	Demolition	m <sup>3</sup>	38		
<b>ID.2</b>	Restoration	m <sup>3</sup>	38		
<b>ST-ID Sub Total for Demolition and Restoration</b>					
<b>Signature of Bidder:</b>		<b>Date:</b>			



<b>SUMMARY FOR PART I - PRICES FOR PIPELINES AND RELATED CIVIL WORKS</b>			
			<b>TOTAL PRICE (Pesos)</b>
<b>IA</b>	<b>PIPELINES</b>		
<b>IB</b>	<b>VALVES</b>		
<b>IC</b>	<b>BRIDGE CROSSING</b>		
<b>ID</b>	<b>DEMOLITION AND RESTORATION</b>		
	<b>TOTAL PART I CARRIED FORWARD TO BID PRICE SUMMARY</b>		
<p><b>Signature of Bidder:</b> _____ <b>Date:</b> _____</p>			

<b>Pay Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Qty.</b>	<b>Unit Price (Pesos)</b>	<b>Total Amount (Pesos)</b>
<b>PART II – LUMP SUM BID ITEMS FOR ELECTRO-MECHANICAL WORKS</b>					
<b>PUMPING FACILITIES – Furnish, install, test and commission electro-mechanical equipment such as submersible pump, controls, electric motor set and accessories and all appurtenances as specified and shown on the drawings.</b>					
Note: Quantities estimated are for the purpose of comparing bids. Payments will be based on actual quantities furnished, installed or constructed.					
<b>IIA</b>	<b>Submersible Pump Set – 100 Hp, High Efficiency</b>	<b>LS</b>	<b>2</b>		
<b>ST-IIA Sub Total for Pumping Facilities</b>					

<b>SUMMARY FOR PART II – LUMP SUM BID PRICE ITEMS FOR ELECTRO-MECHANICAL WORKS</b>			
			<b>TOTAL PRICE (Pesos)</b>
<b>IIA</b>	<b>PUMPING FACILITIES</b>		
	<b>TOTAL PART III CARRIED FORWARD TO BID PRICE SUMMARY</b>		
<b>Signature of Bidder:</b>		<b>Date:</b>	

WORK ITEM		QTY	UNIT or LUMP SUM	TOTAL PRICE (PhP)
<p><b>PART III. SPECIAL ITEMS</b>– The bidder shall complete the following forms by inserting the quantity and price amounts (in figures) for each in the space provided. The amount shall represent the true breakdown of the lump sum bid price indicated below.</p> <p><b>Note:</b> Bid cost for this item shall be for the period of <b>fourteen (14) to accommodate any suspension period/time extension and/or contract closing period.</b></p>				
<p><b>IIIA GENERAL REQUIREMENTS - CONTRACTOR'S MOBILIZATION, DEMOBILIZATION, PROJECT ORGANIZATION, TEMPORARY FACILITIES, PERMITS, FEE, GUARANTEES, BONDS, ETC.</b></p>				
IIIA.1	Mobilization and Demobilization	1	LS	
IIIA.2	Temporary Site Facilities Project Organization and Office Maintenance	14	months	
IIIA.3	Permits, Fees, Guarantees, Bonds, Insurances, etc.	1	LS	
IIIA.4	Occupational Safety and Health Program	1	LS	
IIIA.5	Environmental and Social Measures	1	LS	
<p><b>ST-IIIA Sub Total for General Requirements, Contractor's Temporary Site Facilities, Project Organization, Resource Movement, Etc.</b></p>				
<b>IIIB</b>	<b>PROJECT ENGINEER'S OFFICE INCLUDING OFFICE SUPPLIES AND EQUIPMENT</b>			
IIIB.1	Project Engineer's Office	14	months	
IIIB.2	Office Supplies and Equipment (see Appendix A)	1	LS	
<p><b>ST-IIIB Sub Total for Project Engineer's Office, Office Supplies and Equipment</b></p>				
<p><b>Signature of Bidder:</b></p>		<p><b>Date:</b></p>		

WORK ITEM		QTY	UNIT or LUMP SUM	TOTAL PRICE (PhP)
<b>IIIC PROJECT BILLBOARDS: PROVIDE AND INSTALL FIVE (5) PROJECT SIGNS AND ONE (1) COA SIGN BOARD</b>				
IIIC.1	Project Signs	5 sets		
IIIC.2	COA Sign Board	1 set		
<b>ST-IIIC Sub Total for Project Billboards: Provide and Install Five (5) Project Signs And One (1) COA Sign Board</b>				
<b>Signature of Bidder:</b>		<b>Date:</b>		

SUMMARY FOR PART III – SPECIAL ITEMS			
			TOTAL PRICE (Pesos)
<b>IIIA</b>	<b>GENERAL REQUIREMENTS, CONTRACTOR'S TEMPORARY SITE FACILITIES, PROJECT ORGANIZATION, RESOURCE MOVEMENT, , ETC.</b>		
<b>IIIB</b>	<b>PROJECT ENGINEER'S OFFICE, ETC.</b>		
<b>IIIC</b>	<b>PROJECT BILLBOARDS:  PROVIDE AND INSTALL FIVE (5) PROJECT SIGNS AND ONE (1) COA SIGN BOARD</b>		
	<b>TOTAL PART III CARRIED FORWARD TO BID PRICE SUMMARY</b>		
<b>Signature of Bidder:</b>		<b>Date:</b>	

### TOTAL BID PRICE SUMMARY

	WORK ITEM	TOTAL PRICE (PHP)
<b>PART I</b>	<b>PIPELINES AND RELATED CIVIL WORKS</b>	
<b>PART II</b>	<b>ELECTRO-MECHANICAL WORKS</b>	
<b>PART III</b>	<b>SPECIAL ITEMS</b>	
<b>II. TOTAL OF PART I TO III</b>		
<b>TOTAL BID PRICE (I + III)</b>		
<b>In words:</b>		
_____		
_____		
_____ (_____)		

**Signature of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

### BREAKDOWN OF PRICES

The Bidder shall completely fill up the Bidder's Breakdown of the Unit Price and Lump Sum Bids herein below provided by inserting the amount in figures for each item in the space provided. The Breakdown shall be submitted together with and shall form part of the Bid Form. The amounts shall represent a true breakdown of the bid prices of the Unit Price and Lump Sum Bids shown in the Bid Form in Philippine Peso. These amounts will be used in preparing monthly estimates. All breakdown should be balanced and consistent with the bid amount in Section VIII – Bill of Quantities. An UNBALANCED BREAKDOWN WILL NOT BE ACCEPTABLE. The total amount indicated in the form below for each Unit Price and Lump Sum Bid Items must equal the bid price shown in the Bid Form.

#### UNIT PRICE BID ITEMS

#### J. PIPELINES AND RELATED CIVIL WORKS

##### IA. PIPELINES

The bidder shall complete the following form by inserting the price amounts (in figures) for supply and installation of pipes up to hydrotesting. Disinfection of pipes shall be paid as a separate pay item.

Bid Item	Unit Price (per LM) Materials			Unit Price Installation (per LM)			Total Unit Price
	a/ Pipes	a/ Fittings	Others	Excavation	Laying/ Jointing	Backfilling, Compaction, Hydrotesting	
<b>Transmission/Distribution Line (uPVC Pipes with Integrated Fixed Seal, Series 8)</b>							
400mm Ø							
<b>Transmission/Distribution Pipelines</b>							
400mm Ø							

Note: Others include detection tapes, thrust blocks, warning lights and steel plates, etc. Laying cost includes local transportation cost to the site. For steel or metal pipes, no detection tapes are required.

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

The bidder shall complete the following form by inserting the price amounts (in figures) for the supply of materials and installation (**per unit cost**).

### IB.1 GATE/BUTTERFLY VALVES

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE SUPPLY a/ (3)	UNIT PRICE INSTALLATION (4)	BID ITEM TOTAL UNIT PRICE (5)
400 mm Ø	2pcs			
250mm Ø	1 pc			

Note : a/ include fittings & other expenses such as taxes, clearance and handling up to the construction site.

### IB.2 AIR RELEASE FLANGES

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE SUPPLY a/ (3)	UNIT PRICE INSTALLATION (4)	BID ITEM TOTAL UNIT PRICE (5)
75 mm Ø	7pcs			

Note : a/ include fittings & other expenses such as taxes, clearance and handling up to the construction site.

### IB.3 BLOW-OFF VALVES

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE SUPPLY a/ (3)	UNIT PRICE INSTALLATION (4)	BID ITEM TOTAL UNIT PRICE (5)
150 mm Ø	6pcs			

Note : a/ include fittings & other expenses such as taxes, clearance and handling up to the construction site.

Signature and Official Stamp of Bidder: \_\_\_\_\_ Date: \_\_\_\_\_

**IC. BRIDGE CROSSING**

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE SUPPLY a/ (3)	UNIT PRICE INSTALLATION (4)	BID ITEM TOTAL UNIT PRICE (5)
400 mm Ø Steel pipe	LS			

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_



**ID. DEMOLITION AND RESTORATION****ID.1 PAVEMENT DEMOLITION**

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE LABOR (3)	UNIT PRICE EQUIPMENT (4)	BID ITEM TOTAL UNIT PRICE (5)
Pavement Demolition				
Restoration				

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## II. ELECTRO-MECHANICAL EQUIPMENT

For the Pumping Facilities, the bidder shall complete the following form by inserting the quantity and price amount (in figures) for each item, in the space provided. The amount shall represent the true breakdown of the bid price for lump sum shown under Part II of the bid form. Items not shown in the breakdown hereunder, but shown on the drawings shall be specified and added by the bidder, items not applicable shall be deleted.

Description	Quantity	Unit Installed Cost	Total Amount
Submersible Pump with Cathodic Protection, 100HP	2 units		
Valves and Accessories <ol style="list-style-type: none"> <li>1. Cooling Shroud 0.40m Ø X 2.75M long with Stabilizer (2 units)</li> <li>2. 200mm Ø Butterfly Valve (4 units)</li> <li>3. 200mm Ø Rubber Coupling (4 units)</li> <li>4. 100mm Ø Pressure Gauge (2 units)</li> <li>5. Pressure Transducer (2 units)</li> <li>6. Submersible Cable (20m)</li> <li>7. 250mm Ø Steel Pipe (1 pc)</li> <li>8. 400mm Ø x 250mm Ø Tee (2 pcs)</li> <li>9. 250mm Ø Butterfly Valve (2 pcs)</li> <li>10. 250mm Ø x 200mm Ø Reducer (2 pcs)</li> <li>11. 25 mm Ø Air Release Valve (1 pc)</li> </ol>	1 lot		
Motor Control, VFD, soft starter Variable Frequency Drive 100HP 460Vac 3-Phase, 60Hz	1 lot		
Electrical  12. Control Panel Component <ol style="list-style-type: none"> <li>2.1 Feeder Line (100mm<sup>2</sup>) Estimate 30 mts (1 set)</li> <li>2.2 Service Entrance Main Breaker 600A (1 set)</li> <li>2.3 Manual Transfer Switch 500A (1 set)</li> <li>2.4 Junction Box (cable Tray) (1 lot)</li> <li>2.5 Power Cable (60mm<sup>2</sup>) Estimate 40 mts (2 sets)</li> <li>2.6 Conduits (PVC 90mm) Estimate 30 mts (2 sets)</li> </ol>	1 lot		

<p>2.7 Conduits Accessories (elbows, adaptor, solvent) (2 sets)                  2.8 Conduits (FLT 90mm) (2 sets)                  2.9 Conduits Accessories (FLT adaptor) (2 sets)</p> <p><b>13. Control Panel Component</b></p> <p>2.1 Control Panel (1200L x 1000W x 500W) (1 lot)                  Includes Variable Frequency Drive 100HP 460Vac 3-Phase, 60Hz. Complete with circuit breaker, magnetic contactor with start/stop push buttons, pilot lights, liquid level control relay with electrodes, overload relay, under/over voltage relay, lightning arrester, with phase failure and phase imbalance relay, ammeter, voltmeter, and HOA selector switch mounted in enclosure</p> <p>2.2 Control Panel (1000L x 1000W x 400W) (1 lot)                  Includes Softstarter 100HP 460Vac 3-Phase, 60Hz. Complete with circuit breaker, magnetic contactor with start/stop push buttons, pilot lights, liquid level control relay with electrodes, overload relay, under/over voltage relay, lightning arrester, with phase failure and phase imbalance relay, ammeter, voltmeter, and HOA selector switch mounted in enclosure</p>			
<p>Concrete Vault</p>	<p>1 lot</p>		

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**III. SPECIAL ITEMS****IIIA Contractor’s Mobilization, Demobilization, Project Organization, Temporary Facilities, Permits, Fee, Guarantees, Bonds, etc.**

No.	Description	Quantity/ Unit	Unit Cost	Total Amount
1.	Mobilization/Demobilization Movement	LS		
2.	Temporary Site Facilities, including bunk houses, storage, utilities and maintenance	14 mos		
3.	Project Organization, Equipment	LS		
4.	Office Equipment, Supplies, Furnitures, Consumables, etc.	LS		
5.	Permits, Fees, Bonds, Guarantees, Warrantees and Insurances	LS		
6.	Occupational Safety and Health Program	LS		
7.	Environmental and Social Measures	LS		
<b>IIIA</b>	<b>SUB-TOTAL IIIA</b>			

**IIIB Provide and Maintain Project Engineer’s Office**

No.	Description	Quantity/ Unit	Unit Cost	Total Amount
1.	Provide and Maintain Project Engineer’s Office. All monthly utility bills, cable, internet connection/wi-fi shall be included in this bid item.	14 mos		
2.	Provide furniture, computers, office equipment, supplies, printer ink, consumables, etc. for the duration of the contract. See Appendix A for specific requirements.	LS		
<b>IIIB</b>	<b>SUB-TOTAL IIIB</b>			
<b>Signature and Official Stamp of Bidder:</b> _____ <b>Date:</b> _____				

**III.C Project Billboards: Provide, Install, and Maintain Project and COA Sign Boards**

	Description	Quantity/ Unit	Unit Installed Cost	Total Amount
1.	Project Signs	5 sets		
2.	COA Sign Board	1 set		
<b>III.C</b>	<b>SUB-TOTAL FOR III.C</b>			

**APPENDIX A**

Supply the following office furniture, equipment, computers and office supplies.

Item	Description	Specification	Qty	Unit
1	Desktop computer set w/ computer table and chair	Latest Model, core i9 1 TB GB Hard Drive (min.), 8 GB RAM, AVR, OS – Windows 10 w/ latest Microsoft Office Software, AutoCad, latest anti-virus and Wi-fi ready as approved and accepted by the Engineer	1	set
2	Printer	Three-in-one, minimum (printer, copier & scanner) latest model as approved/accepted by the Engineer.	1	unit
3	Uninterrupted Power Supply (UPS)	Latest model as approved by the Engineer	1	unit
4	Laptop	Latest Model, 1 TeraByte Hard Drive, 8 GB RAM, OS – Windows 10 with latest Microsoft Office Software, AutoCad, latest anti-virus and Wi-fi ready as approved and accepted by the Engineer	1	unit

Signature and Official Stamp of Bidder: \_\_\_\_\_ Date: \_\_\_\_\_

5	Flash Drive/USB	64 GB Capacity	2	pcs
6	Steel Filing Cabinet	Four (4) Drawers	1	pc
7	Office Table	Executive Table as approved by the Engineer	3	pcs
8	Office Chairs	Heavy duty as approved by the Engineer	3	pcs
9	Conference Table and Chairs	8-seater	1	set
10	Refrigerator	6 cu.ft. (min.)	1	unit
11	Aircon	1 Hp capacity (min)	2	units
12	Water Dispenser	Standard (hot and cold)	1	unit
13	Stand Fan	Heavy Duty (adjustable)	2	units
14	Gas Stove w/ Gas Tank	2 Burner	1	set
14	Beds with complete beddings, pillows and blankets	Semi double bed as approved by the Engineer	3	sets
13	Kitchen wares	Complete set as approved by the Engineer	1	lot

The Field Engineer's Office shall be 60 sq.m. (minimum) floor area with living room (will serve as office space), two (2) bedrooms, bathroom and kitchen. All utilities, such as rental, water, power, telephone and internet connection among others shall be borne by the Contractor and to be included in its Bid.

Office Consumables to be supplied by the Contractor for the duration of the Contract:

8. Bond Papers (A4, long and short sizes)
9. Calculators (2 pcs)
10. Ball Pens (black, blue and red)
11. Pencil
12. Folders and Brown Envelopes
13. Printer Ink (black and color)
14. Other Office Consumables, as required by the Engineer

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

(v) Section IX. Bidding Forms.

### 13. Documents Comprising the Bid: Financial Component

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

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

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

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

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

- (iv) The procuring entity has established a system to monitor and report bid prices relative to ABC and engineer's/procuring entity's estimate.
- (v) The procuring entity has established a monitoring and evaluation system for contract implementation to provide a feedback on actual total costs of goods and works.

## 14. Alternative Bids

- 14.1. Alternative Bids shall be rejected. For this purpose, alternative bid is an offer made by a Bidder in addition or as a substitute to its original bid which may be included as part of its original bid or submitted separately therewith for purposes of bidding. A bid with options is considered an alternative bid regardless of whether said bid proposal is contained in a single envelope or submitted in two (2) or more separate bid envelopes.
- 14.2. Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic technical design as indicated in the drawings and specifications. Unless there is a value engineering clause in the **BDS**, alternative bids shall not be accepted.
- 14.3. Each Bidder shall submit only one Bid, either individually or as a partner in a JV. A Bidder who submits or participates in more than one bid (other than as a subcontractor if a subcontractor is permitted to participate in more than one bid) will cause all the proposals with the Bidder's participation to be disqualified. This shall be without prejudice to any applicable criminal, civil and administrative penalties that may be imposed upon the persons and entities concerned.

## 15. Bid Prices

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



in GCC Clause 48. Upon the recommendation of the Procuring Entity, price escalation may be allowed in extraordinary circumstances as may be determined by the National Economic and Development Authority in accordance with the Civil Code of the Philippines, and upon approval by the GPPB. Furthermore, in cases where the cost of the awarded contract is affected by any applicable new laws, ordinances, regulations, or other acts of the GoP, promulgated after the date of bid opening, a contract price adjustment shall be made or appropriate relief shall be applied on a no loss-no gain basis.

## 16. Bid Currencies

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

## 17. Bid Validity

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

## 18. Bid Security

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

Form of Bid Security	Amount of Bid Security (Not less than the Percentage of the ABC)
(b) Cash or cashier's/manager's check issued by a Universal or Commercial Bank.  <i>For biddings conducted by LGUs, the cashier's/manager's check may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i>	
(c) 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.  <i>For biddings conducted by LGUs, the Bank Draft/ Guarantee, or irrevocable letter of credit may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i>	Two percent (2%)
(d) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.	Five percent (5%)

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

- 18.2. The bid security should be valid for the period specified in the **BDS**. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.
- 18.3. No bid securities shall be returned to Bidders after the opening of bids and before contract signing, except to those that failed or declared as post-disqualified, upon submission of a written waiver of their right to file a request for reconsideration and/or protest, or lapse of the reglementary period without

having filed a request for reconsideration or protest. Without prejudice on its forfeiture, Bid Securities shall be returned only after the Bidder with the Lowest Calculated Responsive Bid (LCRB) has signed the contract and furnished the Performance Security, but in no case later than the expiration of the Bid Security validity period indicated in **ITB Clause 18.2**.

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

18.5. The bid security may be forfeited:

(a) if a Bidder:

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

(xii) all other acts that tend to defeat the purpose of the competitive bidding, such as habitually withdrawing from bidding, submitting late Bids or patently insufficient bid, for at least three (3) times within a year, except for valid reasons.

(b) if the successful Bidder:

(i) fails to sign the contract in accordance with **ITB** Clause 31;

(ii) fails to furnish performance security in accordance with **ITB** Clause 32.

## 19. Format and Signing of Bids

19.1 Bidders shall submit their bids through their duly authorized representative using the appropriate forms provided in Bill of Quantities

19.2 WORK ITEM	UNIT	QTY	UNIT PRICE (PhP)	TOTAL PRICE (PhP)
<p><b>III. UNIT BID ITEMS FOR PIPELINES AND RELATED CIVIL WORKS</b></p> <p>NOTE: Quantities Estimated are for the purposes of comparing bids. Payment will be based on actual quantities furnished, installed or constructed.</p>				
<p><b>IA. PIPELINES</b> - Furnish and install pipes complete including joints, fittings, and warning/detection tapes, perform excavation of any type of soil excluding rock/boulders/hard limestone with pipe cover of not less than 1.0meters, measured to existing ground surface, sump pumping, pipe supports, thrust blocks, backfilling using suitable materials from the trench, disposal of surplus materials where directed, compaction and hydro testing in accordance with Specifications and Drawings. The cost shall include provision and maintaining enough safety barricades, bollards, warning signs/lights and steel plates to cover open trenches when required and in accordance with the Plans and Technical Specifications.</p> <p>Note 1: Quantity = length in meters, <b>excluding</b> length of valves and assemblies under Items B</p> <p>Note 2: Thrust block is not required for welded steel pipes.</p> <p>Note3: If below-ground laying is not suitable to actual field conditions, above-ground pipe installation shall be used.</p> <p>Note 4: All other interconnections not included in Lump Sum Bid Items for Interconnection shall be included under unit bid items for pipelines.</p>				
<p><b>IA.1 Transmission/Distribution Pipelines - uPVC Pipes Series 8 (class 150 or 150 psi normal working pressure) machine-installed metal reinforced integrated epdm gasket seal.</b></p>				
3.	400 mm (16") diameter uPVC pipes	LM	3,252	

19.2 WORK ITEM		UNIT	QTY	UNIT PRICE (PhP)	TOTAL PRICE (PhP)
<b>IA.2 Disinfect all proposed pipelines as specified</b>					
1.	400 mm (16") diameter uPVC pipes	LM	3,252		
<b>ST-IA Sub-total for Pipelines</b>					
<b>Signature of Bidder:</b>		<b>Date:</b>			
<p><b>IB. VALVES</b> – Furnish and install gate or butterfly or pressure reducing valves complete with fittings on proposed pipelines with valve box cover, concrete pads and perform all necessary earthworks, backfill, compaction and disposal of excess materials in accordance with the Plans &amp; Specifications.  <i>Note 1: Quantity = number of valves</i></p>					
<b>IB.1 Gate or Butterfly Valves with flanges or combination flanges</b>					
(Refer to details as shown in the Drawings)					
1.	400 mm Butterfly valves	set	2		
2.	250 mm Gate valves	set	1		
<b>IB.2 Air Release Valve with flanges</b>					
1.	75 mm	Set	7		
<b>IB.3 Blow-off Valve</b>					
1.	150 mm	Set	6		
<b>ST-IB Sub Total for Gate Valves, Air Release Valves, and Blow-off Valves</b>					
<p><b>IC. BRIDGE CROSSING</b> – Furnish all materials, labor, tools, and equipment necessary to construct all pipe crossings of the proposed pipelines complete including installation of pipes, fittings, valves (if needed), thrust blocks, abutments, piers, coffering, and all other works including testing and disinfecting as specified and shown on the Drawings. Refer to the Drawings for limit of Lump Sum Bid.</p>					

<b>19.2 WORK ITEM</b>		<b>UNIT</b>	<b>QTY</b>	<b>UNIT PRICE (PhP)</b>	<b>TOTAL PRICE (PhP)</b>
<b>IC.1</b>	Bridge Crossing (400 mm dia. Steel Pipe)	LS	1		
<b>ST-IC Sub Total for Bridge Crossing</b>					
<b>Signature of Bidder:</b>		<b>Date:</b>			
<p><b>ID. DEMOLITION AND RESTORATION</b> - Furnish labor tools and equipment necessary to demolish pavement (roads, sidewalk and driveways) and construct and/or restore pavement and/or structures including the hauling and disposal of discard materials to approved dumpsite acceptable to the Engineer. The cost of cutting/sawing the pavement as well as supply and preparation of the base course when required shall be included in the unit bid price.</p> <p>Note: Payment will be based on the volume of concrete pavement restored regardless of the thickness of pavement(s) demolished. Computation of volume of restoration shall also consider the width in excess of the maximum allowable trench width. Thickness of base course and or sub-base shall not be included in the measurement.</p>					
<b>ID.1</b>	Demolition	m <sup>3</sup>	38		
<b>ID.2</b>	Restoration	m <sup>3</sup>	38		
<b>ST-ID Sub Total for Demolition and Restoration</b>					
<b>Signature of Bidder:</b>		<b>Date:</b>			

<b>SUMMARY FOR PART I - PRICES FOR PIPELINES AND RELATED CIVIL WORKS</b>			
			<b>TOTAL PRICE (Pesos)</b>
<b>IA</b>	<b>PIPELINES</b>		
<b>IB</b>	<b>VALVES</b>		
<b>IC</b>	<b>BRIDGE CROSSING</b>		
<b>ID</b>	<b>DEMOLITION AND RESTORATION</b>		
	<b>TOTAL PART I CARRIED FORWARD TO BID PRICE SUMMARY</b>		
<p><b>Signature of Bidder:</b> _____ <b>Date:</b> _____</p>			

<b>Pay Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Qty.</b>	<b>Unit Price (Pesos)</b>	<b>Total Amount (Pesos)</b>
<b>PART II – LUMP SUM BID ITEMS FOR ELECTRO-MECHANICAL WORKS</b>					
<b>PUMPING FACILITIES – Furnish, install, test and commission electro-mechanical equipment such as submersible pump, controls, electric motor set and accessories and all appurtenances as specified and shown on the drawings.</b>					
Note: Quantities estimated are for the purpose of comparing bids. Payments will be based on actual quantities furnished, installed or constructed.					
<b>IIA</b>	<b>Submersible Pump Set – 100 Hp, High Efficiency</b>	<b>LS</b>	<b>2</b>		
<b>ST-IIA Sub Total for Pumping Facilities</b>					

<b>SUMMARY FOR PART II – LUMP SUM BID PRICE ITEMS FOR ELECTRO-MECHANICAL WORKS</b>			
			<b>TOTAL PRICE (Pesos)</b>
<b>IIA</b>	<b>PUMPING FACILITIES</b>		
	<b>TOTAL PART III CARRIED FORWARD TO BID PRICE SUMMARY</b>		
<b>Signature of Bidder:</b>		<b>Date:</b>	



WORK ITEM		QTY	UNIT or LUMP SUM	TOTAL PRICE (PhP)
<p><b>PART III. SPECIAL ITEMS</b>– The bidder shall complete the following forms by inserting the quantity and price amounts (in figures) for each in the space provided. The amount shall represent the true breakdown of the lump sum bid price indicated below.</p> <p><b>Note:</b> Bid cost for this item shall be for the period of <b>fourteen (14) to accommodate any suspension period/time extension and/or contract closing period.</b></p>				
<p><b>IIIA GENERAL REQUIREMENTS - CONTRACTOR’S MOBILIZATION, DEMOBILIZATION, PROJECT ORGANIZATION, TEMPORARY FACILITIES, PERMITS, FEE, GUARANTEES, BONDS, ETC.</b></p>				
IIIA.1	Mobilization and Demobilization	1	LS	
IIIA.2	Temporary Site Facilities Project Organization and Office Maintenance	14	months	
IIIA.3	Permits, Fees, Guarantees, Bonds, Insurances, etc.	1	LS	
IIIA.4	Occupational Safety and Health Program	1	LS	
IIIA.5	Environmental and Social Measures	1	LS	
<p><b>ST-IIIA Sub Total for General Requirements, Contractor’s Temporary Site Facilities, Project Organization, Resource Movement, Etc.</b></p>				
<b>IIIB</b>	<b>PROJECT ENGINEER’S OFFICE INCLUDING OFFICE SUPPLIES AND EQUIPMENT</b>			
IIIB.1	Project Engineer’s Office	14	months	
IIIB.2	Office Supplies and Equipment (see Appendix A)	1	LS	
<p><b>ST-IIIB Sub Total for Project Engineer’s Office, Office Supplies and Equipment</b></p>				
<p><b>Signature of Bidder:</b></p>		<p><b>Date:</b></p>		

WORK ITEM		QTY	UNIT or LUMP SUM	TOTAL PRICE (PhP)
<b>IIIC PROJECT BILLBOARDS: PROVIDE AND INSTALL FIVE (5) PROJECT SIGNS AND ONE (1) COA SIGN BOARD</b>				
IIIC.1	Project Signs	5 sets		
IIIC.2	COA Sign Board	1 set		
<b>ST-IIIC Sub Total for Project Billboards: Provide and Install Five (5) Project Signs And One (1) COA Sign Board</b>				
<b>Signature of Bidder:</b>		<b>Date:</b>		

SUMMARY FOR PART III – SPECIAL ITEMS			
			TOTAL PRICE (Pesos)
<b>IIIA</b>	<b>GENERAL REQUIREMENTS, CONTRACTOR’S TEMPORARY SITE FACILITIES, PROJECT ORGANIZATION, RESOURCE MOVEMENT, , ETC.</b>		
<b>IIIB</b>	<b>PROJECT ENGINEER’S OFFICE, ETC.</b>		
<b>IIIC</b>	<b>PROJECT BILLBOARDS:  PROVIDE AND INSTALL FIVE (5) PROJECT SIGNS AND ONE (1) COA SIGN BOARD</b>		
	<b>TOTAL PART III CARRIED FORWARD TO BID PRICE SUMMARY</b>		
<b>Signature of Bidder:</b>		<b>Date:</b>	

### TOTAL BID PRICE SUMMARY

	WORK ITEM	TOTAL PRICE (PHP)
<b>PART 1</b>	<b>PIPELINES AND RELATED CIVIL WORKS</b>	
<b>PART II</b>	<b>ELECTRO-MECHANICAL WORKS</b>	
<b>PART III</b>	<b>SPECIAL ITEMS</b>	
<b>III. TOTAL OF PART I TO III</b>		
<b>TOTAL BID PRICE (I + III)</b>		
<b>In words:</b>		
_____		
_____		
_____ (_____)		

**Signature of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

### BREAKDOWN OF PRICES

The Bidder shall completely fill up the Bidder's Breakdown of the Unit Price and Lump Sum Bids herein below provided by inserting the amount in figures for each item in the space provided. The Breakdown shall be submitted together with and shall form part of the Bid Form. The amounts shall represent a true breakdown of the bid prices of the Unit Price and Lump Sum Bids shown in the Bid Form in Philippine Peso. These amounts will be used in preparing monthly estimates. All breakdown should be balanced and consistent with the bid amount in Section VIII – Bill of Quantities. An UNBALANCED BREAKDOWN WILL NOT BE ACCEPTABLE. The total amount indicated in the form below for each Unit Price and Lump Sum Bid Items must equal the bid price shown in the Bid Form.

#### UNIT PRICE BID ITEMS

#### K. PIPELINES AND RELATED CIVIL WORKS

##### IA. PIPELINES

The bidder shall complete the following form by inserting the price amounts (in figures) for supply and installation of pipes up to hydrotesting. Disinfection of pipes shall be paid as a separate pay item.

Bid Item	Unit Price (per LM) Materials			Unit Price Installation (per LM)			Total Unit Price
	a/ Pipes	a/ Fittings	Others	Excavation	Laying/ Jointing	Backfilling, Compaction, Hydrotesting	
<b>Transmission/Distribution Line (uPVC Pipes with Integrated Fixed Seal, Series 8)</b>							
400mm Ø							
<b>Transmission/Distribution Pipelines</b>							
400mm Ø							

Note: Others include detection tapes, thrust blocks, warning lights and steel plates, etc. Laying cost includes local transportation cost to the site. For steel or metal pipes, no detection tapes are required.

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

The bidder shall complete the following form by inserting the price amounts (in figures) for the supply of materials and installation (**per unit cost**).

### IB.1 GATE/BUTTERFLY VALVES

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE SUPPLY a/ (3)	UNIT PRICE INSTALLATION (4)	BID ITEM TOTAL UNIT PRICE (5)
400 mm Ø	2pcs			
250mm Ø	1 pc			

Note : a/ include fittings & other expenses such as taxes, clearance and handling up to the construction site.

### IB.2 AIR RELEASE FLANGES

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE SUPPLY a/ (3)	UNIT PRICE INSTALLATION (4)	BID ITEM TOTAL UNIT PRICE (5)
75 mm Ø	7pcs			

Note : a/ include fittings & other expenses such as taxes, clearance and handling up to the construction site.

### IB.3 BLOW-OFF VALVES

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE SUPPLY a/ (3)	UNIT PRICE INSTALLATION (4)	BID ITEM TOTAL UNIT PRICE (5)
150 mm Ø	6pcs			

Note : a/ include fittings & other expenses such as taxes, clearance and handling up to the construction site.

Signature and Official Stamp of Bidder: \_\_\_\_\_ Date: \_\_\_\_\_

**IC. BRIDGE CROSSING**

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE SUPPLY a/ (3)	UNIT PRICE INSTALLATION (4)	BID ITEM TOTAL UNIT PRICE (5)
400 mm Ø Steel pipe	LS			

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**ID. DEMOLITION AND RESTORATION****ID.1 PAVEMENT DEMOLITION**

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE LABOR (3)	UNIT PRICE EQUIPMENT (4)	BID ITEM TOTAL UNIT PRICE (5)
Pavement Demolition				
Restoration				

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## II. ELECTRO-MECHANICAL EQUIPMENT

For the Pumping Facilities, the bidder shall complete the following form by inserting the quantity and price amount (in figures) for each item, in the space provided. The amount shall represent the true breakdown of the bid price for lump sum shown under Part II of the bid form. Items not shown in the breakdown hereunder, but shown on the drawings shall be specified and added by the bidder, items not applicable shall be deleted.

Description	Quantity	Unit Installed Cost	Total Amount
Submersible Pump with Cathodic Protection, 100HP	2 units		
Valves and Accessories <ol style="list-style-type: none"> <li>1. Cooling Shroud 0.40m Ø X 2.75M long with Stabilizer (2 units)</li> <li>2. 200mm Ø Butterfly Valve (4 units)</li> <li>3. 200mm Ø Rubber Coupling (4 units)</li> <li>4. 100mm Ø Pressure Gauge (2 units)</li> <li>5. Pressure Transducer (2 units)</li> <li>6. Submersible Cable (20m)</li> <li>7. 250mm Ø Steel Pipe (1 pc)</li> <li>8. 400mm Ø x 250mm Ø Tee (2 pcs)</li> <li>9. 250mm Ø Butterfly Valve (2 pcs)</li> <li>10. 250mm Ø x 200mm Ø Reducer (2 pcs)</li> <li>11. 25 mm Ø Air Release Valve (1 pc)</li> </ol>	1 lot		
Motor Control, VFD, soft starter Variable Frequency Drive 100HP 460Vac 3-Phase, 60Hz	1 lot		
Electrical  12. Control Panel Component <ol style="list-style-type: none"> <li>3.1 Feeder Line (100mm<sup>2</sup>) Estimate 30 mts (1 set)</li> <li>3.2 Service Entrance Main Breaker 600A (1 set)</li> <li>3.3 Manual Transfer Switch 500A (1 set)</li> <li>3.4 Junction Box (cable Tray) (1 lot)</li> <li>3.5 Power Cable (60mm<sup>2</sup>) Estimate 40 mts (2 sets)</li> <li>3.6 Conduits (PVC 90mm) Estimate 30 mts (2 sets)</li> </ol>	1 lot		



<p>3.7 Conduits Accessories (elbows, adaptor, solvent) (2 sets)                  3.8 Conduits (FLT 90mm) (2 sets)                  3.9 Conduits Accessories (FLT adaptor) (2 sets)</p> <p><b>13. Control Panel Component</b></p> <p>2.1 Control Panel (1200L x 1000W x 500W) (1 lot)                  Includes Variable Frequency Drive 100HP 460Vac 3-Phase, 60Hz. Complete with circuit breaker, magnetic contactor with start/stop push buttons, pilot lights, liquid level control relay with electrodes, overload relay, under/over voltage relay, lightning arrester, with phase failure and phase imbalance relay, ammeter, voltmeter, and HOA selector switch mounted in enclosure</p> <p>2.2 Control Panel (1000L x 1000W x 400W) (1 lot)                  Includes Softstarter 100HP 460Vac 3-Phase, 60Hz. Complete with circuit breaker, magnetic contactor with start/stop push buttons, pilot lights, liquid level control relay with electrodes, overload relay, under/over voltage relay, lightning arrester, with phase failure and phase imbalance relay, ammeter, voltmeter, and HOA selector switch mounted in enclosure</p>			
<p>Concrete Vault</p>	<p>1 lot</p>		

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**III. SPECIAL ITEMS****IIIA Contractor’s Mobilization, Demobilization, Project Organization, Temporary Facilities, Permits, Fee, Guarantees, Bonds, etc.**

No.	Description	Quantity/ Unit	Unit Cost	Total Amount
1.	Mobilization/Demobilization Movement	LS		
2.	Temporary Site Facilities, including bunk houses, storage, utilities and maintenance	14 mos		
3.	Project Organization, Equipment	LS		
4.	Office Equipment, Supplies, Furnitures, Consumables, etc.	LS		
5.	Permits, Fees, Bonds, Guarantees, Warrantees and Insurances	LS		
6.	Occupational Safety and Health Program	LS		
7.	Environmental and Social Measures	LS		
<b>IIIA</b>	<b>SUB-TOTAL IIIA</b>			

**IIIB Provide and Maintain Project Engineer’s Office**

No.	Description	Quantity/ Unit	Unit Cost	Total Amount
1.	Provide and Maintain Project Engineer’s Office. All monthly utility bills, cable, internet connection/wi-fi shall be included in this bid item.	14 mos		
2.	Provide furniture, computers, office equipment, supplies, printer ink, consumables, etc. for the duration of the contract. See Appendix A for specific requirements.	LS		
<b>IIIB</b>	<b>SUB-TOTAL IIIB</b>			
<b>Signature and Official Stamp of Bidder:</b> _____ <b>Date:</b> _____				

**III.C Project Billboards: Provide, Install, and Maintain Project and COA Sign Boards**

	Description	Quantity/ Unit	Unit Installed Cost	Total Amount
1.	Project Signs	5 sets		
2.	COA Sign Board	1 set		
<b>III.C</b>	<b>SUB-TOTAL FOR III.C</b>			

**APPENDIX A**

Supply the following office furniture, equipment, computers and office supplies.

Item	Description	Specification	Qty	Unit
1	Desktop computer set w/ computer table and chair	Latest Model, core i9 1 TB GB Hard Drive (min.), 8 GB RAM, AVR, OS – Windows 10 w/ latest Microsoft Office Software, AutoCad, latest anti-virus and Wi-fi ready as approved and accepted by the Engineer	1	set
2	Printer	Three-in-one, minimum (printer, copier & scanner) latest model as approved/accepted by the Engineer.	1	unit
3	Uninterrupted Power Supply (UPS)	Latest model as approved by the Engineer	1	unit
4	Laptop	Latest Model, 1 TeraByte Hard Drive, 8 GB RAM, OS – Windows 10 with latest Microsoft Office Software, AutoCad, latest anti-virus and Wi-fi ready as approved and accepted by the Engineer	1	unit

Signature and Official Stamp of Bidder: \_\_\_\_\_ Date: \_\_\_\_\_

5	Flash Drive/USB	64 GB Capacity	2	pcs
6	Steel Filing Cabinet	Four (4) Drawers	1	pc
7	Office Table	Executive Table as approved by the Engineer	3	pcs
8	Office Chairs	Heavy duty as approved by the Engineer	3	pcs
9	Conference Table and Chairs	8-seater	1	set
10	Refrigerator	6 cu.ft. (min.)	1	unit
11	Aircon	1 Hp capacity (min)	2	units
12	Water Dispenser	Standard (hot and cold)	1	unit
13	Stand Fan	Heavy Duty (adjustable)	2	units
14	Gas Stove w/ Gas Tank	2 Burner	1	set
14	Beds with complete beddings, pillows and blankets	Semi double bed as approved by the Engineer	3	sets
13	Kitchen wares	Complete set as approved by the Engineer	1	lot

The Field Engineer's Office shall be 60 sq.m. (minimum) floor area with living room (will serve as office space), two (2) bedrooms, bathroom and kitchen. All utilities, such as rental, water, power, telephone and internet connection among others shall be borne by the Contractor and to be included in its Bid.

Office Consumables to be supplied by the Contractor for the duration of the Contract:

1. Bond Papers (A4, long and short sizes)
2. Calculators (2 pcs)
3. Ball Pens (black, blue and red)
4. Pencil
5. Folders and Brown Envelopes
6. Printer Ink (black and color)
7. Other Office Consumables, as required by the Engineer

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

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

## **20. Sealing and Marking of Bids**

- 20.1. Bidders shall enclose their original eligibility and technical documents described in **ITB** Clause 12, in one sealed envelope marked “ORIGINAL – TECHNICAL COMPONENT,” and the original of their financial component in another sealed envelope marked “ORIGINAL – FINANCIAL COMPONENT,” sealing them all in an outer envelope marked “ORIGINAL BID.”
- 20.2. Each copy of the first and second envelopes shall be similarly sealed duly marking the inner envelopes as “COPY NO. \_\_\_ - TECHNICAL COMPONENT” and “COPY NO. \_\_\_ – FINANCIAL COMPONENT” and the outer envelope as “COPY NO. \_\_\_,” respectively. These envelopes containing the original and the copies shall then be enclosed in one single envelope.

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

#### **D. Submission and Opening of Bids**

##### **21. Deadline for Submission of Bids**

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

##### **22. Late Bids**

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

##### **23. Modification and Withdrawal of Bids**

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

received after the applicable deadline shall not be considered and shall be returned to the Bidder unopened.

- 23.2. A Bidder may, through a Letter of Withdrawal, withdraw its bid after it has been submitted, for valid and justifiable reason; provided that the Letter of Withdrawal is received by the Procuring Entity prior to the deadline prescribed for submission and receipt of bids. The Letter of Withdrawal must be executed by the authorized representative of the Bidder identified in the Omnibus Sworn Statement, a copy of which should be attached to the letter.
- 23.3. Bids requested to be withdrawn in accordance with **ITB** Clause 23.1 shall be returned unopened to the Bidders. A Bidder, who has acquired the bidding documents may also express its intention not to participate in the bidding through a letter which should reach and be stamped by the BAC before the deadline for submission and receipt of bids. A Bidder that withdraws its bid shall not be permitted to submit another bid, directly or indirectly, for the same contract.
- 23.4. No bid may be modified after the deadline for submission of bids. No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Financial Bid Form. Withdrawal of a bid during this interval shall result in the forfeiture of the Bidder's bid security, pursuant to **ITB** Clause 18.5, and the imposition of administrative, civil, and criminal sanctions as prescribed by RA 9184 and its IRR.

## **24. Opening and Preliminary Examination of Bids**

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

the second envelope of a particular bid is missing, incomplete or patently insufficient, and/or if the submitted total bid price exceeds the ABC unless otherwise provided in **ITB** Clause 13.2, the BAC shall rate the bid concerned as “failed.” Only bids that are determined to contain all the bid requirements for both components shall be rated “passed” and shall immediately be considered for evaluation and comparison.

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



- 24.9 To ensure transparency and accurate representation of the bid submission, the BAC Secretariat shall notify in writing all Bidders whose bids it has received through its PhilGEPS-registered physical address or official e-mail address. The notice shall be issued within seven (7) calendar days from the date of the bid opening.

### **E. Evaluation and Comparison of Bids**

#### **25. Process to be Confidential**

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

#### **26. Clarification of Bids**

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

#### **27. Detailed Evaluation and Comparison of Bids**

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

same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the Procuring Entity, except those required by law or regulations to be provided for; and

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

## 28. Post Qualification

- 28.1. The BAC shall determine to its satisfaction whether the Bidder that is evaluated as having submitted the Lowest Calculated Bid complies with and is responsive to all the requirements and conditions specified in **ITB** Clauses 5, 12, and 13.
- 28.2. Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS) and other appropriate licenses and permits required by law and stated in the **BDS**.

Failure to submit any of the post-qualification requirements on time, or a finding against the veracity thereof, shall disqualify the Bidder for award. Provided in

the event that a finding against the veracity of any of the documents submitted is made, it shall cause the forfeiture of the bid security in accordance with Section 69 of the IRR of RA 9184.

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

## **29. Reservation Clause**

- 29.1. Notwithstanding the eligibility or post-qualification of a Bidder, the Procuring Entity concerned reserves the right to review its qualifications at any stage of the procurement process if it has reasonable grounds to believe that a misrepresentation has been made by the said Bidder, or that there has been a change in the Bidder's capability to undertake the project from the time it submitted its eligibility requirements. Should such review uncover any misrepresentation made in the eligibility and bidding requirements, statements or documents, or any changes in the situation of the Bidder which will affect its capability to undertake the project so that it fails the preset eligibility or bid evaluation criteria, the Procuring Entity shall consider the said Bidder as ineligible and shall disqualify it from submitting a bid or from obtaining an award or contract.

- 29.2. Based on the following grounds, the Procuring Entity reserves the right to reject any and all Bids, declare a Failure of Bidding at any time prior to the contract award, or not to award the contract, without thereby incurring any liability, and make no assurance that a contract shall be entered into as a result of the bidding:
- (a) If there is *prima facie* evidence of collusion between appropriate public officers or employees of the Procuring Entity, or between the BAC and any of the Bidders, or if the collusion is between or among the Bidders themselves, or between a Bidder and a third party, including any act which restricts, suppresses or nullifies or tends to restrict, suppress or nullify competition;
  - (b) If the Procuring Entity's BAC is found to have failed in following the prescribed bidding procedures; or
  - (c) For any justifiable and reasonable ground where the award of the contract will not redound to the benefit of the GOP as follows:
    - (i) If the physical and economic conditions have significantly changed so as to render the project no longer economically, financially or technically feasible as determined by the HoPE;
    - (ii) If the project is no longer necessary as determined by the HoPE; and
    - (iii) If the source of funds for the project has been withheld or reduced through no fault of the Procuring Entity.
- 29.3. In addition, the Procuring Entity may likewise declare a failure of bidding when:
- (a) No bids are received;
  - (b) All prospective Bidders are declared ineligible;
  - (c) All bids fail to comply with all the bid requirements, fail post-qualification; or
  - (d) The Bidder with the LCRB refuses, without justifiable cause, to accept the award of contract, and no award is made in accordance with Section 40 of the IRR of RA 9184.

## **F. Award of Contract**

### **30. Contract Award**

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

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

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

### **31. Signing of the Contract**

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

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

### 32. Performance Security

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

<b>Form of Performance Security</b>	<b>Amount of Performance Security (Not less than the Percentage of the Total Contract Price)</b>
(a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank.  <i>For biddings conducted by the LGUs, the Cashier's/Manager's Check may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i>	Ten percent (10%)
(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.  <i>For biddings conducted by the LGUs, Bank Draft/Guarantee, or Irrevocable Letter of Credit may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i>	
(c) Surety bond callable upon demand issued by a surety or insurance company duly	Thirty percent (30%)

<b>Form of Performance Security</b>	<b>Amount of Performance Security (Not less than the Percentage of the Total Contract Price)</b>
certified by the Insurance Commission as authorized to issue such security.	

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

### **33. Notice to Proceed**

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

### **34. Protest Mechanism**

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

## *Section III. Bid Data Sheet*



## Bid Data Sheet

ITB Clause	
1.1	The Procuring Entity is Norzagaray Water District.
1.2	The name of the Contract is Norzagaray Water Supply Improvement Project. The identification number of the Contract is WDDSP-NorWD-OCB-07a The lot(s) and reference is: One (1)
2	The Funding Source is the Asian Development Bank (ADB) through Loan No. 3389-PHI.  The name of the Project is Water District Development Sector Project.  Payments by the Foreign Funding Source will be made only at the request of the Procuring Entity and upon approval by the Executing Agency, Local Water Utilities Administration in accordance with the terms and conditions of Loan No. 3389-PHI hereinafter called the "Financing Agreement" and will be subject in all respect to the terms and conditions of that Financing Agreement and the applicable law. No party other than the Procuring Entity shall derive any rights from the Financing Agreement or have any claim to the funds.
3.1	ADB's Anticorruption Policy requires Borrowers (including beneficiaries of ADB-financed activity), as well as Bidders, Suppliers, and Contractors under ADB-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, ADB  (a) defines, for the purposes of this provision, the terms set forth below as follows:  (i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;  (ii) "fraudulent practice" means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;  (iii) "coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;  (iv) "collusive practice" means an arrangement between two or more parties designed to achieve an improper purpose, including

ITB Clause	
	<p>influencing improperly the actions of another party;</p> <p>(v) “obstructive practice” means (a) deliberately destroying, falsifying, altering, or concealing of evidence material to an ADB investigation; (b) making false statements to investigators in order to materially impede an ADB investigation; (c) failing to comply with requests to provide information, documents or records in connection with an Office of Anticorruption and Integrity (OAI) investigation; (d) threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or (e) materially impeding ADB’s contractual rights of audit or access to information; and</p> <p>(vi) “integrity violation” is any act which violates ADB’s Anticorruption Policy, including (i) to (v) above and the following: abuse, conflict of interest, violations of ADB sanctions, retaliation against whistleblowers or witnesses, and other violations of ADB’s Anticorruption Policy, including failure to adhere to the highest ethical standard.</p> <p>(b) will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations in competing for the Contract;</p> <p>(c) will cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the Borrower or of a beneficiary of ADB financing engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations during the procurement or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to ADB to remedy the situation;</p> <p>(d) will impose remedial actions on a firm or an individual, at any time, in accordance with ADB’s Anticorruption Policy and Integrity Principles and Guidelines (both as amended from time to time), including declaring ineligible, either indefinitely or for a stated period of time, to participate in ADB-financed, administered, or supported activities or to benefit from an ADB-financed, administered, or supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations; and</p> <p>(e) will have the right to require that a provision be included in bidding documents and in contracts financed by ADB, requiring Bidders, suppliers, and contractors to permit ADB or its representative to inspect their accounts and records and other documents relating to the bid</p>

ITB Clause	
	submission and contract performance and to have them audited by auditors appointed by ADB.
5.1	<p>Eligible Bidders are as described in ADB Procurement Guidelines as stated in the Financing Agreement and as described on ADB’s web page <a href="http://www.adb.org">www.adb.org</a></p> <p>An Eligible Bidder shall be deemed to have the nationality of a country if it is a citizen or constituted or incorporated, and operates in conformity with the provisions of the laws of that country.</p>
5.2	<p>Eligible Bidders are as described in ADB Procurement Guidelines as stated in the Financing Agreement and as described on ADB’s web page <a href="http://www.adb.org">www.adb.org</a>.</p>
5.4	<p>For this purpose, similar contracts shall refer to contracts which have the same major categories of work: water supply/systems (pipe laying and supply and installation of electro-mechanical equipment).</p>
8.1	Subcontracting is not allowed.
8.2	Not applicable.
9.1	<p>The Procuring Entity will hold a pre-bid conference for this Project on <b>18 November 2020, 2:00 p.m.</b>at:</p> <p style="text-align: center;"><b>Norzagaray Water District</b> 1639 Pedro dela Merced Street Barangay Poblacion Norzagaray, Bulacan 3013</p> <p>Pre-bid Conference may be conducted in person, face-to-face through videoconferencing, webcasting, or similar technology, or a combination thereof.</p>
10.1	<p>The Procuring Entity’s address is:</p> <p style="text-align: center;"><b>Mr. Lazaro M. Pascual</b> Chairperson, Bids and Awards Committee NORZAGARAY WATER DISTRICT 1639 Pedro dela Merced Street Barangay Poblacion Norzagaray, Bulacan3013 Telephone No.: (044) 913-9210 / 815-3964 Facsimile No.: (044) 815-3964 Email Address: norzagaray_wd @yahoo.com</p>

ITB Clause	
12.1	<p>The first envelope shall contain the following eligibility and technical documents:</p> <p>a. Eligibility Requirements</p> <ul style="list-style-type: none"> <li>i. Registration Certification of the Company (SEC or DTI) OR valid PhilGEPS Certificate of Platinum Membership;</li> <li>ii. List of relevant contracts that comply to the experience requirement as specified in ITB Clause 5.4;</li> <li>iii. Audited financial statement for the past two years;</li> <li>iv. The bidder shall submit a Contractors Performance Evaluation System (CPES) Rating Sheet, or any equivalent document in case of contracts with private sector, with at least satisfactory rating, corresponding to the submitted SLCC. This is addition to the Notice of Award and/or Notice to Proceed and Certificate of Completion and Final Acceptance issued by the owner;</li> <li>iv. In case of Joint Venture, the JV Agreement, if existing, or a signed statement from the partner companies that they will enter into a JV in case of award of contract; and</li> <li>v. Valid License from the Philippine Contractors Accreditation Board (PCAB) Category B – Medium A (General Engineering - Water Supply).</li> </ul> <p>b. Technical Documents</p> <ul style="list-style-type: none"> <li>vi. Project Requirements, which shall include the following: <ul style="list-style-type: none"> <li>(vi.1) List of contractor’s personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data; and</li> <li>(vi.2) List of contractor’s major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project;</li> </ul> </li> <li>vi. Bid Security as required in ITB Clause 18.1 of Section III. Bid Data Sheet;</li> <li>vii. Sworn statement in accordance with Section 25.3 of the IRR of RA 9184 and using the form prescribed in Section VIII. Bidding Forms;</li> </ul>

ITB Clause																											
	<p>viii. Credit line from a Universal or Commercial Bank extended in favor of the bidder if awarded the contract for the project in an amount of at least ten percent (10%) of the ABC; and</p> <p>x. Technical Documents shall also include a Health and Safety COVID-19 Plan, in accordance with the Construction Guidelines for Project Implementation During the Period of Public Health Emergency (attached as Annex 4 of this Bidding Document) issued by the Philippine Domestic Construction Board, an implementing board of the Construction Industry Authority of the Philippines (CIAP). Absence of or incomplete submission may result in rejection of bid.</p> <p>Foreign bidders may submit the equivalent documents, if any, issued by the country of the foreign bidder.</p>																										
12.1(a)(iii)	<p>Foreign bidders may submit their Valid Philippine Contractors Accreditation Board (PCAB) license or special PCAB License in case of joint ventures, and registration for the type and cost of the contract for this Project as a pre-condition for award as provided in the Financing Agreement.</p>																										
12.1(b)(ii.2)	<p>A minimum relevant work experience is required for key personnel to be engaged/provided by the contractor:</p> <table border="1"> <thead> <tr> <th>Key Personnel</th> <th>General Experience</th> <th>Relevant Experience</th> </tr> </thead> <tbody> <tr> <td>Project Manager</td> <td>15</td> <td>10</td> </tr> <tr> <td>Mechanical Engineer</td> <td>10</td> <td>5</td> </tr> <tr> <td>Electrical Engineer</td> <td>3</td> <td>2</td> </tr> <tr> <td>Project Engineers - 2</td> <td>3</td> <td>2</td> </tr> <tr> <td>Materials Engineer (DPWH Level 1 or 2)</td> <td>3</td> <td>2</td> </tr> <tr> <td>Safety Officer</td> <td>2</td> <td>1</td> </tr> <tr> <td>Foremen - 3</td> <td>2</td> <td>1</td> </tr> </tbody> </table>			Key Personnel	General Experience	Relevant Experience	Project Manager	15	10	Mechanical Engineer	10	5	Electrical Engineer	3	2	Project Engineers - 2	3	2	Materials Engineer (DPWH Level 1 or 2)	3	2	Safety Officer	2	1	Foremen - 3	2	1
Key Personnel	General Experience	Relevant Experience																									
Project Manager	15	10																									
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Project Engineers - 2	3	2																									
Materials Engineer (DPWH Level 1 or 2)	3	2																									
Safety Officer	2	1																									
Foremen - 3	2	1																									

ITB Clause			
12.1(b)(iii.3)	The minimum major equipment requirements are the following:		
	<b>Equipment</b>	<b>Capacity</b>	<b>No. of Units</b>
	Backhoe	6-tonner	2
	Payloader		1
	Mini-Dump Truck	3 cum	1
	Concrete Mixer	1-bagger	2
	Water Truck with Tank	3 cum	1
	Truck (elf or equal)	5 tons	1
	Surveying Instrument		1
	Concrete Saw/Cutter		2
	Concrete Vibrator		3
	Plate Compactor		2
	Compressor w/ Jack Hammer		2
	Engine Driven Welding Machine	300A	2
	Cutting Outfit		2
13.1	No additional requirements.		
13.1(b)	<p>This shall include the following document:</p> <ol style="list-style-type: none"> <li>1) Detailed Estimates, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; and</li> <li>2) Cash flow by quarter or payment schedule.</li> </ol>		
13.2(a) and (b)	ABC does not apply as ceiling for bid prices. Bids that exceed the ABC will not be automatically rejected. Detailed price analysis will be carried out		
14.2	No further instructions.		
16.1	The bid prices shall be quoted in Philippine Pesos.		
16.3	No further instructions.		
17.1	Bids will be valid within one hundred twenty (120) calendar days from receipt of bids to <b>3 April 2021</b> .		
18.1	<p>The bid security shall be in the form of any the following forms:</p> <ol style="list-style-type: none"> <li>a. The amount of not less than <b>PhP1,026,000.00 (2% of ABC)</b> if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit.</li> </ol>		

ITB Clause	
	b. The amount of <b>PhP 2,565,000.00 (5% of ABC)</b> if surety bond callable upon demand issued by a Surety or Insurance Company as authorized by the Insurance Commission/
18.2	The bid security shall be valid until <b>3 May 2021</b>  <i>Note: 30 days more than bid validity</i>
20.3	The Bidder shall submit the Eligibility and Technical Documents arranged, numbered and tabbed. Each Bidder shall submit one (1) original and three (3) copies of the first and second components of its bid.
21	The address for submission of bids is:  <b>Bids and Awards Committee</b> Norzagaray Water District 1639 Pedro dela Merced Street Barangay Poblacion Norzagaray, Bulacan3013 Telephone No.: (044) 913-9210 / 815-3964 Facsimile No.: (044) 815-3964 Email Address: norzagaray_wd @yahoo.com Website address: www.norwd.gov.ph  The deadline for submission of bids is on <b>4 December 2020 at 2:00 p.m</b>
24.1	The BAC shall open the bids in public on <b>4 December 2020 at 2:00 p.m</b> at:  Norzagaray Water District 1639 Pedro dela Merced Street Barangay Poblacion Norzagaray, Bulacan 3013  The time for the bid opening shall be the same as the deadline for receipt of bids or promptly thereafter. Rescheduling the date of the opening of bids shall not be considered except for force majeure, such as natural calamities. In rescheduling the opening of bids, the BAC shall issue a Notice of Postponement to be posted at the PhilGEPS' and the Procuring Entity's websites.
24.2	During bid opening, if the first envelope lacks any of the documents listed in the ADB BDS 12.1, the bid shall be declared non-responsive but the documents shall be kept by the Procuring Entity. Only the unopened second envelope shall be returned to the Bidder.
24.3	The BAC shall immediately open the financial proposals in the second envelope of the responsive bids. The bid price shall be read and recorded.
27.4	ABC does not apply as ceiling for bid prices.

ITB Clause	
28.2	<p>Valid PhilGEPS Certificate of Registration and Platinum Membership</p> <p><i>Note: The latest income and business tax returns are those within the last six months preceding the date of submission.</i></p>
28.3	<p>The Procuring Entity will take into account the quality of the Health and Safety COVID-19 Plan attached to the Technical Documents as specified in ITB Clause 12.1(b) x. of the BDS.</p> <p>The bidder should demonstrate in the Plan the Health and Safety Measures it will put in place on site in relation to COVID-19 prevention and controls, including but not limited to, PPE requirements, site set up, training, induction and mobilization of new personnel, equipment and plants cleaning and other hazard management measures while undertaking site work activities, site visitors health and safety protocols, as well as the approach to the monitoring and reporting of the Plan. The Plan should be fit purpose for the particular construction works of this contract and be aligned with the Construction Guidelines for Project Implementation During the Period of Public Health Emergency attached as Annex 4 of this Bidding Document.</p>
31.4(f)	<p>List of additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity,</p> <ol style="list-style-type: none"> <li>(1) Construction schedule and S-curve</li> <li>(2) Manpower Schedule</li> <li>(3) Construction Methods</li> <li>(4) Equipment Utilization Schedule</li> <li>(5) Health and Safety COVID-19 Plan</li> <li>(5) PERT/CPM or other acceptable tools of project scheduling.</li> <li>(6) Materials and Equipment Details</li> <li>(7) Construction Safety and Health Program approved by the Department of Labor and Employment</li> <li>(8) Initial Environmental Examination (IEE), Environmental Management Plan (EMP), Land Acquisition and Involuntary Resettlement Plan[Due Diligence Report for Resettlement] and Gender Action Plan</li> </ol> <p>Items 1 to 5 of the foregoing documents are subject to approval of the Procuring Entity or his duly authorized representative.</p>



<b>ITB Clause</b>	
32.2	<p><b>Performance Bond</b></p> <p>If the winning bidder opts to submit a performance security in the form of bank guarantee, it shall be issued by a reputable bank, as per form included in Section IX: Bidding Forms in the amount of ten percent (10%) of the Contract Price in the currency/ies stated in the bid of the successful bidder. In case the institution issuing the security is located outside the Employer's country, it shall have a correspondent financial institution located in the Employer's country make it enforceable.</p>

## ***Section IV. General Conditions of Contract***

## TABLE OF CONTENTS

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

<b>29. DAYWORKS</b> .....	<b>4-23</b>
<b>30. EARLY WARNING</b> .....	<b>4-23</b>
<b>31. PROGRAM OF WORK</b> .....	<b>4-23</b>
<b>32. MANAGEMENT CONFERENCES</b> .....	<b>4-24</b>
<b>33. BILL OF QUANTITIES</b> .....	<b>4-24</b>
<b>34. INSTRUCTIONS, INSPECTIONS AND AUDITS</b> .....	<b>4-25</b>
<b>35. IDENTIFYING DEFECTS</b> .....	<b>4-25</b>
<b>36. COST OF REPAIRS</b> .....	<b>4-25</b>
<b>37. CORRECTION OF DEFECTS</b> .....	<b>4-25</b>
<b>38. UNCORRECTED DEFECTS</b> .....	<b>4-26</b>
<b>39. ADVANCE PAYMENT</b> .....	<b>4-26</b>
<b>40. PROGRESS PAYMENTS</b> .....	<b>4-26</b>
<b>41. PAYMENT CERTIFICATES</b> .....	<b>4-27</b>
<b>42. RETENTION</b> .....	<b>4-27</b>
<b>43. VARIATION ORDERS</b> .....	<b>4-28</b>
<b>44. CONTRACT COMPLETION</b> .....	<b>4-30</b>
<b>45. SUSPENSION OF WORK</b> .....	<b>4-30</b>
<b>46. PAYMENT ON TERMINATION</b> .....	<b>4-31</b>
<b>47. EXTENSION OF CONTRACT TIME</b> .....	<b>4-31</b>
<b>48. PRICE ADJUSTMENT</b> .....	<b>4-32</b>
<b>49. COMPLETION</b> .....	<b>4-32</b>
<b>50. TAKING OVER</b> .....	<b>4-32</b>
<b>51. OPERATING AND MAINTENANCE MANUALS</b> .....	<b>4-32</b>

## 1. Definitions

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

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

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

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

## 2. Interpretation

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

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

### **3. Governing Language and Law**

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

### **4. Communications**

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

### **5. Possession of Site**

- 5.1. On the date specified in the **SCC**, the Procuring Entity shall grant the Contractor possession of so much of the Site as may be required to enable it to proceed with the execution of the Works. If the Contractor suffers delay or incurs cost from failure on the part of the Procuring Entity to give possession in accordance with the terms of this clause, the Procuring Entity's Representative shall give the Contractor a Contract Time Extension and certify such sum as fair to cover the cost incurred, which sum shall be paid by Procuring Entity.
- 5.2. If possession of a portion is not given by the date stated in the **SCC** Clause 5.1, the Procuring Entity will be deemed to have delayed the start of the relevant activities. The resulting adjustments in contract time to address such delay shall be in accordance with **GCC** Clause 47.
- 5.3. The Contractor shall bear all costs and charges for special or temporary right-of-way required by it in connection with access to the Site. The Contractor shall also provide at his own cost any additional facilities outside the Site required by it for purposes of the Works.
- 5.4. The Contractor shall allow the Procuring Entity's Representative and any person authorized by the Procuring Entity's Representative access to the Site and to any place where work in connection with this Contract is being carried out or is intended to be carried out.



## 6. The Contractor's Obligations

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

## 7. Performance Security

- 7.1. Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both parties, the Contractor shall furnish the performance security in any of the forms prescribed in **ITB** Clause 32.2.
- 7.2. The performance security posted in favor of the Procuring Entity shall be forfeited in the event it is established that the Contractor is in default in any of its obligations under the Contract.
- 7.3. The performance security shall remain valid until issuance by the Procuring Entity of the Certificate of Final Acceptance.
- 7.4. The performance security may be released by the Procuring Entity and returned to the Contractor after the issuance of the Certificate of Final Acceptance subject to the following conditions:
  - (a) There are no pending claims against the Contractor or the surety company filed by the Procuring Entity;
  - (b) The Contractor has no pending claims for labor and materials filed against it; and
  - (c) Other terms specified in the **SCC**.
- 7.5. The Contractor shall post an additional performance security following the amount and form specified in **ITB** Clause 32.2 to cover any cumulative increase of more than ten percent (10%) over the original value of the contract as a result of amendments to order or change orders, extra work orders and supplemental agreements, as the case may be. The Contractor shall cause the extension of the validity of the performance security to cover approved contract time extensions.
- 7.6. In case of a reduction in the contract value or for partially completed Works under the contract which are usable and accepted by the Procuring Entity the use of which, in the judgment of the implementing agency or the Procuring Entity, will not affect the structural integrity of the entire project, the Procuring Entity shall allow a proportional reduction in the original performance security, provided that any such reduction is more than ten percent (10%) and that the aggregate of such reductions is not more than fifty percent (50%) of the original performance security.
- 7.7. Unless otherwise indicated in the **SCC**, the Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to Act 3688 against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

## 8. Subcontracting

- 8.1. Unless otherwise indicated in the **SCC**, the Contractor cannot subcontract Works more than the percentage specified in **BDS** Clause 8.1.
- 8.2. Subcontracting of any portion of the Works does not relieve the Contractor of any liability or obligation under this Contract. The Contractor will be responsible for the acts, defaults, and negligence of any subcontractor, its agents, servants or workmen as fully as if these were the Contractor's own acts, defaults, or negligence, or those of its agents, servants or workmen.
- 8.3. If subcontracting is allowed. The contractor may identify its subcontractor during contract implementation stage. Subcontractors disclosed and identified during the bidding may be changed during the implementation of this Contract. In either case, subcontractors must submit the documentary requirements under ITB Clause 12 and comply with the eligibility criteria specified in the **BDS**. In the event that any subcontractor is found by any Procuring Entity to be eligible, the subcontracting of such portion of the Works shall be disallowed.

## 9. Liquidated Damages

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

## 10. Site Investigation Reports

The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the **SCC** supplemented by any information obtained by the Contractor.

## 11. The Procuring Entity, Licenses and Permits

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

## 12. Contractor's Risk and Warranty Security

- 12.1. The Contractor shall assume full responsibility for the Works from the time project construction commenced up to final acceptance by the Procuring Entity and shall be held responsible for any damage or destruction of the Works except those occasioned by *force majeure*. The Contractor shall be fully responsible for the safety, protection, security, and convenience of his personnel, third parties, and the public at large, as well as the Works, Equipment, installation, and the like to be affected by his construction work.
- 12.2. The defects liability period for infrastructure projects shall be one year from contract completion up to final acceptance by the Procuring Entity. During this period, the Contractor shall undertake the repair works, at his own expense, of any damage to the Works on account of the use of materials of inferior quality within ninety (90) days from the time the HoPE has issued an order to undertake repair. In case of failure or refusal to comply with this mandate, the Procuring Entity shall undertake such repair works and shall be entitled to full reimbursement of expenses incurred therein upon demand.
- 12.3. Unless otherwise indicated in the **SCC**, in case the Contractor fails to comply with the preceding paragraph, the Procuring Entity shall forfeit its performance security, subject its property(ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding. All payables of the GoP in his favor shall be offset to recover the costs.
- 12.4. After final acceptance of the Works by the Procuring Entity, the Contractor shall be held responsible for “Structural Defects,” *i.e.*, major faults/flaws/deficiencies in one or more key structural elements of the project which may lead to structural failure of the completed elements or structure, or “Structural Failures,” *i.e.*, where one or more key structural elements in an infrastructure facility fails or collapses, thereby rendering the facility or part thereof incapable of withstanding the design loads, and/or endangering the safety of the users or the general public:
- (a) Contractor – Where Structural Defects/Failures arise due to faults attributable to improper construction, use of inferior quality/substandard materials, and any violation of the contract plans and specifications, the contractor shall be held liable;
  - (b) Consultants – Where Structural Defects/Failures arise due to faulty and/or inadequate design and specifications as well as construction supervision, then the consultant who prepared the design or undertook construction supervision for the project shall be held liable;
  - (c) Procuring Entity's Representatives/Project Manager/Construction Managers and Supervisors – The project owner's representative(s), project manager, construction manager, and supervisor(s) shall be held liable in cases where the Structural Defects/Failures are due to his/their willful intervention in altering the designs and other specifications; negligence or omission in not approving or acting on proposed changes to

noted defects or deficiencies in the design and/or specifications; and the use of substandard construction materials in the project;

- (d) Third Parties - Third Parties shall be held liable in cases where Structural Defects/Failures are caused by work undertaken by them such as leaking pipes, diggings or excavations, underground cables and electrical wires, underground tunnel, mining shaft and the like, in which case the applicable warranty to such structure should be levied to third parties for their construction or restoration works.
- (e) Users - In cases where Structural Defects/Failures are due to abuse/misuse by the end user of the constructed facility and/or non-compliance by a user with the technical design limits and/or intended purpose of the same, then the user concerned shall be held liable.

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

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

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

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

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

### **13. Liability of the Contractor**

Subject to additional provisions, if any, set forth in the **SCC**, the Contractor's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

### **14. Procuring Entity's Risk**

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

### **15. Insurance**

- 15.1. The Contractor shall, under his name and at his own expense, obtain and maintain, for the duration of this Contract, the following insurance coverage:
- (a) Contractor's All Risk Insurance;
  - (b) Transportation to the project Site of Equipment, Machinery, and Supplies owned by the Contractor;
  - (c) Personal injury or death of Contractor's employees; and
  - (d) Comprehensive insurance for third party liability to Contractor's direct or indirect act or omission causing damage to third persons.
- 15.2. The Contractor shall provide evidence to the Procuring Entity's Representative that the insurances required under this Contract have been effected and shall,

within a reasonable time, provide copies of the insurance policies to the Procuring Entity's Representative. Such evidence and such policies shall be provided to the Procuring Entity's through the Procuring Entity's Representative.

- 15.3. The Contractor shall notify the insurers of changes in the nature, extent, or program for the execution of the Works and ensure the adequacy of the insurances at all times in accordance with the terms of this Contract and shall produce to the Procuring Entity's Representative the insurance policies in force including the receipts for payment of the current premiums.

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

- 15.4. If the Contractor fails to obtain and keep in force the insurances referred to herein or any other insurance which he may be required to obtain under the terms of this Contract, the Procuring Entity may obtain and keep in force any such insurances and pay such premiums as may be necessary for the purpose. From time to time, the Procuring Entity may deduct the amount it shall pay for said premiums including twenty five percent (25%) therein from any monies due, or which may become due, to the Contractor, without prejudice to the Procuring Entity exercising its right to impose other sanctions against the Contractor pursuant to the provisions of this Contract.

- 15.5. In the event the Contractor fails to observe the above safeguards, the Procuring Entity may, at the Contractor's expense, take whatever measure is deemed necessary for its protection and that of the Contractor's personnel and third parties, and/or order the interruption of dangerous Works. In addition, the Procuring Entity may refuse to make the payments under GCC Clause 40 until the Contractor complies with this Clause.

- 15.6. The Contractor shall immediately replace the insurance policy obtained as required in this Contract, without need of the Procuring Entity's demand, with a new policy issued by a new insurance company acceptable to the Procuring Entity for any of the following grounds:

- (a) The issuer of the insurance policy to be replaced has:
- (i) become bankrupt;
  - (ii) been placed under receivership or under a management committee;
  - (iii) been sued for suspension of payment; or
  - (iv) been suspended by the Insurance Commission and its license to engage in business or its authority to issue insurance policies cancelled; or

- (v) Where reasonable grounds exist that the insurer may not be able, fully and promptly, to fulfill its obligation under the insurance policy.

## **16. Termination for Default of Contractor**

16.1. The Procuring Entity shall terminate this Contract for default when any of the following conditions attend its implementation:

- (i) Due to the Contractor's fault and while the project is on-going, it has incurred negative slippage of fifteen percent (15%) or more in accordance with Presidential Decree 1870, regardless of whether or not previous warnings and notices have been issued for the Contractor to improve his performance;
- (ii) Due to its own fault and after this Contract time has expired, the Contractor incurs delay in the completion of the Work after this Contract has expired; or
- (iii) The Contractor:
  - (i) abandons the contract Works, refuses or fails to comply with a valid instruction of the Procuring Entity or fails to proceed expeditiously and without delay despite a written notice by the Procuring Entity;
  - (ii) does not actually have on the project Site the minimum essential equipment listed on the bid necessary to prosecute the Works in accordance with the approved Program of Work and equipment deployment schedule as required for the project;
  - (iii) does not execute the Works in accordance with this Contract or persistently or flagrantly neglects to carry out its obligations under this Contract;
  - (iv) neglects or refuses to remove materials or to perform a new Work that has been rejected as defective or unsuitable; or
  - (v) sub-lets any part of this Contract without approval by the Procuring Entity.

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

## **17. Termination for Default of Procuring Entity**

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



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

## **18. Termination for Other Causes**

- 18.1. The Procuring Entity may terminate this Contract, in whole or in part, at any time for its convenience. The HoPE may terminate this Contract for the convenience of the Procuring Entity if he has determined the existence of conditions that make Project Implementation economically, financially or technically impractical and/or unnecessary, such as, but not limited to, fortuitous event(s) or changes in law and National Government policies.
- 18.2. The Procuring Entity or the Contractor may terminate this Contract if the other party causes a fundamental breach of this Contract.
- 18.3. Fundamental breaches of Contract shall include, but shall not be limited to, the following:
  - (a) The Contractor stops work for twenty eight (28) days when no stoppage of work is shown on the current Program of Work and the stoppage has not been authorized by the Procuring Entity's Representative;
  - (b) The Procuring Entity's Representative instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within twenty eight (28) days;
  - (c) The Procuring Entity shall terminate this Contract if the Contractor is declared bankrupt or insolvent as determined with finality by a court of competent jurisdiction. In this event, termination will be without compensation to the Contractor, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Procuring Entity and/or the Contractor. In the case of the Contractor's insolvency, any Contractor's Equipment which the Procuring Entity instructs in the notice is to be used until the completion of the Works;
  - (d) A payment certified by the Procuring Entity's Representative is not paid by the Procuring Entity to the Contractor within eighty four (84) days from the date of the Procuring Entity's Representative's certificate;
  - (e) The Procuring Entity's Representative gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Procuring Entity's Representative;
  - (f) The Contractor does not maintain a Security, which is required;

- (g) The Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the **GCC** Clause 9; and
  - (h) In case it is determined prima facie by the Procuring Entity that the Contractor has engaged, before or during the implementation of the contract, in unlawful deeds and behaviors relative to contract acquisition and implementation, such as, but not limited to, the following:
    - (i) corrupt, fraudulent, collusive, coercive, and obstructive practices as defined in **ITB** Clause 3.1(a), unless otherwise specified in the SCC;
    - (ii) drawing up or using forged documents;
    - (iii) using adulterated materials, means or methods, or engaging in production contrary to rules of science or the trade; and
    - (iv) any other act analogous to the foregoing.
- 18.4. The Funding Source or the Procuring Entity, as appropriate, will seek to impose the maximum civil, administrative and/or criminal penalties available under the applicable law on individuals and organizations deemed to be involved with corrupt, fraudulent, or coercive practices.
- 18.5. When persons from either party to this Contract gives notice of a fundamental breach to the Procuring Entity's Representative in order to terminate the existing contract for a cause other than those listed under **GCC** Clause 18.3, the Procuring Entity's Representative shall decide whether the breach is fundamental or not.
- 18.6. If this Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

## **19. Procedures for Termination of Contracts**

- 19.1. The following provisions shall govern the procedures for the termination of this Contract:
- (a) Upon receipt of a written report of acts or causes which may constitute ground(s) for termination as aforementioned, or upon its own initiative, the Procuring Entity shall, within a period of seven (7) calendar days, verify the existence of such ground(s) and cause the execution of a Verified Report, with all relevant evidence attached;
  - (b) Upon recommendation by the Procuring Entity, the HoPE shall terminate this Contract only by a written notice to the Contractor conveying the termination of this Contract. The notice shall state:

- (i) that this Contract is being terminated for any of the ground(s) aforementioned, and a statement of the acts that constitute the ground(s) constituting the same;
- (ii) the extent of termination, whether in whole or in part;
- (iii) an instruction to the Contractor to show cause as to why this Contract should not be terminated; and
- (iv) special instructions of the Procuring Entity, if any.

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

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

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

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

## 20. Force Majeure, Release from Performance

- 20.1. For purposes of this Contract the terms “*force majeure*” and “fortuitous event” may be used interchangeably. In this regard, a fortuitous event or *force majeure* shall be interpreted to mean an event which the Contractor could not have foreseen, or which though foreseen, was inevitable. It shall not include ordinary unfavorable weather conditions; and any other cause the effects of which could have been avoided with the exercise of reasonable diligence by the Contractor.
- 20.2. If this Contract is discontinued by an outbreak of war or by any other event entirely outside the control of either the Procuring Entity or the Contractor, the Procuring Entity’s Representative shall certify that this Contract has been discontinued. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all works carried out before receiving it and for any Work carried out afterwards to which a commitment was made.
- 20.3. If the event continues for a period of eighty four (84) days, either party may then give notice of termination, which shall take effect twenty eight (28) days after the giving of the notice.
- 20.4. After termination, the Contractor shall be entitled to payment of the unpaid balance of the value of the Works executed and of the materials and Plant reasonably delivered to the Site, adjusted by the following:
  - (a) any sum to which the Contractor is entitled under **GCC** Clause 28;
  - (b) the cost of his suspension and demobilization;
  - (c) any sum to which the Procuring Entity is entitled.
- 20.5. The net balance due shall be paid or repaid within a reasonable time period from the time of the notice of termination.

## 21. Resolution of Disputes

- 21.1. If any dispute or difference of any kind whatsoever shall arise between the parties in connection with the implementation of the contract covered by the Act and this IRR, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
- 21.2. If the Contractor believes that a decision taken by the Procuring Entity’s Representative was either outside the authority given to the Procuring Entity’s Representative by this Contract or that the decision was wrongly taken, the decision shall be referred to the Arbiter indicated in the **SCC** within fourteen (14) days of the notification of the Procuring Entity’s Representative’s decision.
- 21.3. Any and all disputes arising from the implementation of this Contract covered by the R.A. 9184 and its IRR shall be submitted to arbitration in the Philippines according to the provisions of Republic Act No. 876, otherwise known as the “Arbitration Law” and Republic Act 9285, otherwise known as the “Alternative

Dispute Resolution Act of 2004”: *Provided, however,* That, disputes that are within the competence of the Construction Industry Arbitration Commission to resolve shall be referred thereto. The process of arbitration shall be incorporated as a provision in this Contract that will be executed pursuant to the provisions of the Act and its IRR: *Provided, further,* That, by mutual agreement, the parties may agree in writing to resort to other alternative modes of dispute resolution.

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

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

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

## **23. Procuring Entity’s Representative’s Decisions**

- 23.1. Except where otherwise specifically stated, the Procuring Entity’s Representative will decide contractual matters between the Procuring Entity and the Contractor in the role representing the Procuring Entity.
- 23.2. The Procuring Entity’s Representative may delegate any of his duties and responsibilities to other people except to the 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. No payment shall be made for any event which may warrant the extension of the Intended Completion Date.
- 26.2. The Procuring Entity's Representative shall decide whether and by how much to extend the Intended Completion Date within twenty one (21) days of the Contractor asking the Procuring Entity's Representative for a decision thereto after fully submitting all supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

## **27. Right to Vary**

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

## 28. Contractor's Right to Claim

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

## 29. Dayworks

- 29.1. Subject to **GCC** Clause 43 on Variation Order, and if applicable as indicated in the **SCC**, the Dayworks rates in the Contractor's bid shall be used for small additional amounts of work only when the Procuring Entity's Representative has given written instructions in advance for additional work to be paid for in that way.
- 29.2. All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Procuring Entity's Representative. Each completed form shall be verified and signed by the Procuring Entity's Representative within two days of the work being done.
- 29.3. The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

## 30. Early Warning

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

## 31. Program of Work

- 31.1. Within the time stated in the **SCC**, the Contractor shall submit to the Procuring Entity's Representative for approval a Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works.
- 31.2. An update of the Program of Work shall show the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
- 31.3. The Contractor shall submit to the Procuring Entity's Representative for approval an updated Program of Work at intervals no longer than the period stated in the **SCC**. If the Contractor does not submit an updated Program of Work within this period, the Procuring Entity's Representative may withhold



the amount stated in the **SCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.

- 31.4. The Procuring Entity's Representative's approval of the Program of Work shall not alter the Contractor's obligations. The Contractor may revise the Program of Work and submit it to the Procuring Entity's Representative again at any time. A revised Program of Work shall show the effect of any approved Variations.
- 31.5. When the Program of Work is updated, the Contractor shall provide the Procuring Entity's Representative with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.
- 31.6. All Variations shall be included in updated Program of Work produced by the Contractor.

### **32. Management Conferences**

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

### **33. Bill of Quantities**

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

### **34. Instructions, Inspections and Audits**

- 34.1. The Procuring Entity's personnel shall at all reasonable times during construction of the Work be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of the construction.
- 34.2. If the Procuring Entity's Representative instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no defect, the test shall be a Compensation Event.
- 34.3. The Contractor shall permit the Funding Source named in the **SCC** to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Funding Source, if so required by the Funding Source.

### **35. Identifying Defects**

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

### **36. Cost of Repairs**

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

### **37. Correction of Defects**

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

### **38. Uncorrected Defects**

- 38.1. The Procuring Entity shall give the Contractor at least fourteen (14) days notice of his intention to use a third party to correct a Defect. If the Contractor does not correct the Defect himself within the period, the Procuring Entity may have the Defect corrected by the third party. The cost of the correction will be deducted from the Contract Price.
- 38.2. The use of a third party to correct defects that are uncorrected by the Contractor will in no way relieve the Contractor of its liabilities and warranties under the Contract.

### **39. Advance Payment**

- 39.1. The Procuring Entity shall, upon a written request of the contractor which shall be submitted as a contract document, make an advance payment to the contractor in an amount not exceeding fifteen percent (15%) of the total contract price, to be made in lump sum or, at the most two, installments according to a schedule specified in the **SCC**.
- 39.2. The advance payment shall be made only upon the submission to and acceptance by the Procuring Entity of an irrevocable standby letter of credit of equivalent value from a commercial bank, a bank guarantee or a surety bond callable upon demand, issued by a surety or insurance company duly licensed by the Insurance Commission and confirmed by the Procuring Entity.
- 39.3. The advance payment shall be repaid by the Contractor by an amount equal to the percentage of the total contract price used for the advance payment.
- 39.4. The contractor may reduce his standby letter of credit or guarantee instrument by the amounts refunded by the Monthly Certificates in the advance payment.
- 39.5. The Procuring Entity will provide an Advance Payment on the Contract Price as stipulated in the Conditions of Contract, subject to the maximum amount stated in **SCC** Clause 39.1.

### **40. Progress Payments**

- 40.1. The Contractor may submit a request for payment for Work accomplished. Such request for payment shall be verified and certified by the Procuring Entity's Representative/Project Engineer. Except as otherwise stipulated in the **SCC**, materials and equipment delivered on the site but not completely put in place shall not be included for payment.
- 40.2. The Procuring Entity shall deduct the following from the certified gross amounts to be paid to the contractor as progress payment:
- (a) Cumulative value of the work previously certified and paid for.
  - (b) Portion of the advance payment to be recouped for the month..

- (c) Retention money in accordance with the condition of contract.
  - (d) Amount to cover third party liabilities.
  - (e) Amount to cover uncorrected discovered defects in the works.
- 40.3. Payments shall be adjusted by deducting therefrom the amounts for advance payments and retention. The Procuring Entity shall pay the Contractor the amounts certified by the Procuring Entity's Representative within twenty-eight (28) days from the date each certificate was issued. No payment of interest for delayed payments and adjustments shall be made by the Procuring Entity.
- 40.4. The first progress payment may be paid by the Procuring Entity to the Contractor provided that at least twenty percent (20%) of the work has been accomplished as certified by the Procuring Entity's Representative.
- 40.5. Items of the Works for which a price of "0" (zero) has been entered will not be paid for by the Procuring Entity and shall be deemed covered by other rates and prices in the Contract.

#### **41. Payment Certificates**

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

#### **42. Retention**

- 42.1. The Procuring Entity shall retain from each payment due to the Contractor an amount equal to a percentage thereof using the rate as specified in GCC Sub-Clause 42.2.
- 42.2. Progress payments are subject to retention of ten percent (10%), referred to as the "retention money." Such retention shall be based on the total amount due to the Contractor prior to any deduction and shall be retained from every progress payment until fifty percent (50%) of the value of Works, as determined by the

Procuring Entity, are completed. If, after fifty percent (50%) completion, the Work is satisfactorily done and on schedule, no additional retention shall be made; otherwise, the ten percent (10%) retention shall again be imposed using the rate specified therefor.

- 42.3. The total “retention money” shall be due for release upon final acceptance of the Works. The Contractor may, however, request the substitution of the retention money for each progress billing with irrevocable standby letters of credit from a commercial bank, bank guarantees or surety bonds callable on demand, of amounts equivalent to the retention money substituted for and acceptable to the Procuring Entity, provided that the project is on schedule and is satisfactorily undertaken. Otherwise, the ten (10%) percent retention shall be made. Said irrevocable standby letters of credit, bank guarantees and/or surety bonds, to be posted in favor of the Government shall be valid for a duration to be determined by the concerned implementing office/agency or Procuring Entity and will answer for the purpose for which the ten (10%) percent retention is intended, *i.e.*, to cover uncorrected discovered defects and third party liabilities.
- 42.4. On completion of the whole Works, the Contractor may substitute retention money with an “on demand” Bank guarantee in a form acceptable to the Procuring Entity.

### **43. Variation Orders**

- 43.1. Variation Orders may be issued by the Procuring Entity to cover any increase/decrease in quantities, including the introduction of new work items that are not included in the original contract or reclassification of work items that are either due to change of plans, design or alignment to suit actual field conditions resulting in disparity between the preconstruction plans used for purposes of bidding and the “as staked plans” or construction drawings prepared after a joint survey by the Contractor and the Procuring Entity after award of the contract, provided that the cumulative amount of the Variation Order does not exceed ten percent (10%) of the original project cost. The addition/deletion of Works should be within the general scope of the project as bid and awarded. The scope of works shall not be reduced so as to accommodate a positive Variation Order. A Variation Order may either be in the form of a Change Order or Extra Work Order.
- 43.2. A Change Order may be issued by the Procuring Entity to cover any increase/decrease in quantities of original Work items in the contract.
- 43.3. An Extra Work Order may be issued by the Procuring Entity to cover the introduction of new work necessary for the completion, improvement or protection of the project which were not included as items of Work in the original contract, such as, where there are subsurface or latent physical conditions at the site differing materially from those indicated in the contract, or where there are duly unknown physical conditions at the site of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the Work or character provided for in the contract.

- 43.4. Any cumulative Variation Order beyond ten percent (10%) shall be subject of another contract to be bid out if the works are separable from the original contract. In exceptional cases where it is urgently necessary to complete the original scope of work, the HoPE may authorize a positive Variation Order go beyond ten percent (10%) but not more than twenty percent (20%) of the original contract price, subject to the guidelines to be determined by the GPPB: *Provided, however*, That appropriate sanctions shall be imposed on the designer, consultant or official responsible for the original detailed engineering design which failed to consider the Variation Order beyond ten percent (10%).
- 43.5. In claiming for any Variation Order, the Contractor shall, within seven (7) calendar days after such work has been commenced or after the circumstances leading to such condition(s) leading to the extra cost, and within twenty-eight (28) calendar days deliver a written communication giving full and detailed particulars of any extra cost in order that it may be investigated at that time. Failure to provide either of such notices in the time stipulated shall constitute a waiver by the contractor for any claim. The preparation and submission of Variation Orders are as follows:
- (a) If the Procuring Entity's representative/Project Engineer believes that a Change Order or Extra Work Order should be issued, he shall prepare the proposed Order accompanied with the notices submitted by the Contractor, the plans therefore, his computations as to the quantities of the additional works involved per item indicating the specific stations where such works are needed, the date of his inspections and investigations thereon, and the log book thereof, and a detailed estimate of the unit cost of such items of work, together with his justifications for the need of such Change Order or Extra Work Order, and shall submit the same to the HoPE for approval.
  - (b) The HoPE or his duly authorized representative, upon receipt of the proposed Change Order or Extra Work Order shall immediately instruct the appropriate technical staff or office of the Procuring Entity to conduct an on-the-spot investigation to verify the need for the Work to be prosecuted and to review the proposed plan, and prices of the work involved.
  - (c) The technical staff or appropriate office of the Procuring Entity shall submit a report of their findings and recommendations, together with the supporting documents, to the Head of Procuring Entity or his duly authorized representative for consideration.
  - (d) The HoPE or his duly authorized representative, acting upon the recommendation of the technical staff or appropriate office, shall approve the Change Order or Extra Work Order after being satisfied that the same is justified, necessary, and in order.
  - (e) The timeframe for the processing of Variation Orders from the preparation up to the approval by the Procuring Entity concerned shall not exceed thirty (30) calendar days.

#### 44. Contract Completion

Once the project reaches an accomplishment of ninety five (95%) of the total contract amount, the Procuring Entity may create an inspectorate team to make preliminary inspection and submit a punch-list to the Contractor in preparation for the final turnover of the project. Said punch-list will contain, among others, the remaining Works, Work deficiencies for necessary corrections, and the specific duration/time to fully complete the project considering the approved remaining contract time. This, however, shall not preclude the claim of the Procuring Entity for liquidated damages.

#### 45. Suspension of Work

45.1. The Procuring Entity shall have the authority to suspend the work wholly or partly by written order for such period as may be deemed necessary, due to *force majeure* or any fortuitous events or for failure on the part of the Contractor to correct bad conditions which are unsafe for workers or for the general public, to carry out valid orders given by the Procuring Entity or to perform any provisions of the contract, or due to adjustment of plans to suit field conditions as found necessary during construction. The Contractor shall immediately comply with such order to suspend the work wholly or partly.

45.2. The Contractor or its duly authorized representative shall have the right to suspend work operation on any or all projects/activities along the critical path of activities after fifteen (15) calendar days from date of receipt of written notice from the Contractor to the district engineer/regional director/consultant or equivalent official, as the case may be, due to the following:

- (a) There exist right-of-way problems which prohibit the Contractor from performing work in accordance with the approved construction schedule.
- (b) Requisite construction plans which must be owner-furnished are not issued to the contractor precluding any work called for by such plans.
- (c) Peace and order conditions make it extremely dangerous, if not possible, to work. However, this condition must be certified in writing by the Philippine National Police (PNP) station which has responsibility over the affected area and confirmed by the Department of Interior and Local Government (DILG) Regional Director.
- (d) There is failure on the part of the Procuring Entity to deliver government-furnished materials and equipment as stipulated in the contract.
- (e) Delay in the payment of Contractor's claim for progress billing beyond forty-five (45) calendar days from the time the Contractor's claim has been certified to by the procuring entity's authorized representative that the documents are complete unless there are justifiable reasons thereof which shall be communicated in writing to the Contractor.

45.3. In case of total suspension, or suspension of activities along the critical path, which is not due to any fault of the Contractor, the elapsed time between the

effectivity of the order suspending operation and the order to resume work shall be allowed the Contractor by adjusting the contract time accordingly.

#### **46. Payment on Termination**

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

#### **47. Extension of Contract Time**

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



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

#### **48. Price Adjustment**

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

#### **49. Completion**

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

#### **50. Taking Over**

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

## 51. Operating and Maintenance Manuals

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

## *Section V. Special Conditions of Contract*

## Special Conditions of Contract

GCC Clause	
1.17	The <b>Intended Completion Date</b> is within twelve (12) months from the start date of the project.  <i>NOTE: The contract duration shall be reckoned from the start date and not from contract effectivity date.</i>
1.22	The <b>Procuring Entity</b> is  Norzagaray Water District 1639 Pedro dela Merced Street, Barangay Poblacion Norzagaray, Bulacan
1.23	The <b>Procuring Entity’s Representative</b> is:  <b>Engr. Aimer B. Cruz or Engr. Michael Angelo M. Bernabe</b> 1639 Pedro dela Merced Street Barangay Poblacion Norzagaray, Bulacan 3013
1.24	The <b>Site</b> plan/drawings are located in Norzagaray, Bulacan and is defined in the following drawing sheet no.:  1. Sheet No. 1-8 and 12 out of 12  2. Valve vault interconnection drawing  3. Booster pump vault interconnection drawing (pages 1 to 3)
1.28	The <b>Start Date</b> shall be the date of receipt of the Notice to Proceed:_____.
1.31	The <b>Works</b> consist of construction of pipelaying (3.25 kilometers transmission/distribution mains and 125 meters steel pipe for bridge crossing) and other related works.
2.2	Not applicable.
2.3(j)	Add the following as item j.  j. Initial Environmental Examination (IEE), Environmental Management Plan (EMP), Land Acquisition and Involuntary Resettlement Plan[/Due Diligence Report for Resettlement] and Gender Action Plan
5.1	The <b>Procuring Entity</b> shall give possession of all parts of the Site to the Contractor on the date of the issuance of the Notice to Proceed.
6.5	The Contractor shall employ the Key Personnel and designation required by the Procuring Entity as those in ITB 12.1(b)(ii.2) of the Bid Data Sheet:

GCC Clause	
	<b><i>NOTE: The names of the Key Personnel and their designation shall be filled out by winning contractor prior to contract signing.</i></b>
6.11	Add the following as Sub-Clause 6.11:  “The Contractor shall adequately record the condition of roads, agricultural land and other infrastructure prior to the start of transporting materials, goods and equipment, and construction.”
7.4(c)	No further instructions.
7.7	The Contractor shall be primarily and solely responsible for the acts, defaults, and negligence of any subcontractor.
8.1	No further instructions.
10	The Site Investigation Reports:  Based on the contract drawing of the proposed 400 mm. diameter supply line for Norzagaray Water District, located at San Jose Del Monte/Norzagaray Road (Villarama Highway going to Quirino Highway).
12.3	In case the Contractor fails to comply with the preceding paragraph, the Procuring Entity shall forfeit its performance security. All payables of the GoP in the Contractor's favor shall be offset to recover the costs.
12.5	Warranty Period: <b>Fifteen (15) years.</b>
13	The Procuring Entity does not intend to have a limitation of liability higher than the Contract Price.  All partners to the joint venture shall be jointly and severally liable to the Procuring Entity – if the winning Contractor is a joint venture.
18.3 (h) (i)	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: corrupt, fraudulent, collusive, coercive, abusive, and obstructive practices, <u>conflict of interest and other integrity violations</u> as defined in ITB Clause 3.1(a).”
21.2	The Arbiter is:  Construction Industry Arbitration Commission (CIAC), 2F Executive Center Building, 369 Sen. Gil J. Puyat Avenue corner Makati Avenue, Makati City, M.M.

GCC Clause	
29.1	No dayworks are applicable to the contract.
31.1	The Contractor shall submit the Program of Work to the Procuring Entity’s Representative within thirty (30) calendar days of delivery of the Notice of Award.
31.3	The period between Program of Work updates is <b>ninety (90) calendar days</b> .  The amount to be withheld for late submission of an updated Program of Work is <b>P10,000.00</b> .
34.3	The Funding Source is from LWUA and funds for this contract will come from ADB Loan No. 3389-PHI.
39.1	The amount of the advance payment is <b>fifteen percent (15%) of the Contract Price</b> to be paid in lump sum or at the most two, upon the submission of request and acceptance by the Procuring Entity of an advance payment security as described in GCC Clause 39.2.
40.1	Materials and equipment delivered on the site but not completely put in place shall be included for payment.
40.3	If the Procuring Entity delays payment, the Contractor shall be paid interest on such payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the average annual rate of <b>seven percent (7%)</b> .
44	Upon the completion of construction, the Contractor shall fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition as recorded by the Contractor in consonance with its obligation in Clause 6.11
51.1	The date by which operating and maintenance manuals are required upon completion of the project/issuance of certificate of project completion.  The date by which “as built” drawings are required is upon completion of the project.
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 <b>P20,000.00</b> .
52	Add the following as additional Clause 52.  <b>“52. Industrial or Intellectual Property Rights</b>  The Contractor represents and warrants that the Works (including without limitation all computer hardware, software and systems, whether separately procured or incorporated within other goods and

GCC Clause	
	<p>services procured) do not violate or infringe any industrial property or intellectual property right or claim of any third party.</p> <p>The Contractor shall indemnify and hold the Procuring Entity harmless against and from any claim which arises out of or in relation to the matters referred to above.”</p>
53	<p>Add the following as additional Clause 53.</p> <p><b>“53. Safeguards</b></p> <p>The Contractor shall:</p> <ul style="list-style-type: none"> <li>(a) comply with the measures relevant to the contractor set forth in the Initial Environmental Examination (IEE), Environmental Management Plan (EMP) and Land Acquisition and Involuntary Resettlement Plan[/Due Diligence Report for Resettlement], included in Annex 1 and 3 of this Bidding Documents [the , to the extent it concerns impacts on affected people during construction]; and (ii) any corrective or preventive actions set out in safeguards monitoring reports that the Employer will prepare from time to time to monitor implementation of the IEE, EMP, and Land Acquisition and Involuntary Resettlement Plan[/Due Diligence Report for Resettlement];</li> <li>(b) comply with all applicable national, provincial, and local environmental laws and regulations;</li> <li>(c) prepare and submit the Contractor’s Environmental Management Plan (CEMP) cleared by Project Management Unit (PMU), Project Implementation Unit (PIU) and Asian Development Bank (ADB) prior to start of construction;</li> <li>(d) (i) establish an operational system for managing environmental impacts, (ii) carry out all of the monitoring and mitigation measures set forth in the [Initial Environmental Examination ("IEE")] or [Environmental Management Plan ("EMP")] and (iii) allocate the budget required to ensure that such measures are carried out. The Contractor shall submit semi-annual reports on the carrying out of such measures to the Employer;</li> <li>(e) be responsible for any excessive, unanticipated or unnecessary damage to crops or land arising from his operations and shall provide compensation in accordance with the entitlement matrix as found within the Land Acquisition and Involuntary Resettlement Plan[/Due Diligence Report for Resettlement];</li> <li>(f) ensure that temporary impacts during construction of the subproject will be avoided, if not minimized, the civil works will include the following provisions: (a) contractor to pay rent for any land required for construction work space outside of the ROW; (b) to the extent possible, only idle land will be used as construction work space to avoid disruption to households and business establishments; and (c) temporary use of land will be restored to its pre-project condition or</li> </ul>

GCC Clause	
	<p>improved. The PMU, in coordination with the design and implementation support consultants, will review any written agreement with the AHs, payment records, and disbursement of payment to ensure compliance with the Project's resettlement policy;</p> <p>(g) allocate a budget for compliance with these environmental and social measures, requirements and actions;</p> <p>(h) immediately provide the Procuring Entity with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Contract that were not considered in the IEE, the EMP or the Land Acquisition and Involuntary Resettlement Plan[/Due Diligence Report for Resettlement]; and</p> <p>(i) fully reinstate pathways, other local infrastructure to at least their pre-project condition upon the completion of construction.”</p>
54	<p>Add the following as additional Clause 54.</p> <p><b>“54. Labor</b></p> <p>The Contractor shall (i) prioritize employment of women and the poor to at least the percentages of the labor force as set out in the GAP; (ii) provide equal pay for equal work, regardless of gender, age, ethnicity or any other factors; (iii) provide the timely payment of wages; (iv) maximize the employment of local people who meet the job and efficiency requirements for Subproject construction, operation and maintenance and in that regard, not discriminate against people based on age, provided they are capable of performing the work; (v) advertise labor requirements in a timely manner prior to recruitment, in a venue that can reasonably be expected to be seen by interested men and women, regardless of age or ethnicity; (vi) provide workers with a written contract; (vii) provide such workers with adequate on-the-job training and safety training; (viii) comply with core labor standards and the applicable labor laws and regulations, including stipulations related to employment; (ix) not employ child labor; and (x) maintain records of labor employment (including the name, ethnicity, age, gender, working time and payment of wages) and ensure that such records are included in summary form in the project performance management system.”</p> <p>Child " means a child below the statutory minimum age specified under applicable national, provincial or local law of the Philippines.</p> <p>The Contractor shall not make employment decisions based upon personal characteristics unrelated to job requirements. The Contractor shall base the employment relationship upon equal opportunity and fair</p>



GCC Clause	
	<p>treatment, and shall not discriminate with respect to aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment or retirement, and discipline.</p> <p>The Contractor shall provide equal wages and benefits to men and women for work of equal value or type.”</p>
55	<p><b>Health and Safety</b></p> <p>The Contractor shall conduct health and safety programs for workers employed under the project, and shall include information on the trafficking of women and the risk of sexually transmitted diseases, including HIV/AIDs in such programs.</p> <p>The Contractor is responsible for establishment of preventive and emergency preparedness and response measures to avoid, and where avoidance is not possible, to minimize, adverse impacts and risks of the construction site work to the health and safety of local communities.</p> <p>Within twenty eight (28) days of the commencement date the Contractor shall submit a detailed Site Specific Health and Safety Management Plan (SSHSMP) for the Engineer’s no objection showing how it intends to comply with local health and safety laws and regulations and other specific requirements prescribed in the Contract, taking into account the supplementary information in the bidding documents. Work shall not commence on the site until the confirmation of no objection of the SSHSMP has been obtained from the Engineer and is being implemented. Such confirmation of no objection by the Engineer shall not relieve the Contractor of any of its obligations or responsibilities under the contract.</p> <p>Where unanticipated health and safety hazards or risks become apparent during the Contract, the Contractor is required to update the SSHSMP to outline the potential impacts to site works and associated mitigation measures for the Engineer’s no objection.</p> <p>The Contractor shall comply with the approved SSHSMP and any corrective or preventative actions set out in safeguards monitoring reports that the Procuring Entity (PE) will prepare from time to time to monitor the implementation of the project Environmental Management Plan (EMP) through the SSHSMP.</p> <p>In particular, the Contractor is required to provide all personnel on site including the PE’s personnel and visitors with personal protective equipment, including protection for feet (safety boots), head, eyes, ears (safety helmets) and hands, etc., in accordance with the Contractor’s</p>

GCC Clause	
	<p>SSHSMP. The Contractor should ensure that its subcontractor’s comply with the SSHSMP and provide all such necessary equipment to their personnel.</p> <p>The Contractor shall bear the costs to ensure that such measures, requirements and actions are carried out.</p> <p>The Contractor shall submit semi-annual reports on the compliance of such measures to the Procuring Entity.</p> <p>In the event of a significant injury involving medical treatment or hospitalization and fatal accident the Contractor shall notify the Engineer immediately by verbal communications and submit a formal report as soon as practicable after its occurrence. For all accidents, whether fatal or not, the Contractor shall also notify the appropriate local authorities in accordance with the laws of the Republic of the Philippines.</p> <p>The contractor shall submit a Site Specific Environmental Management Plan (SSEMP) under which the Site Specific Health and Safety Management Plan (SSHSMP) is attached. The SSHSMP is to be submitted to the Engineer and a confirmation and of no objection of the SSHMP should be obtained from the Engineer and the Procuring Entity prior to commence of site work.</p>
55	<p>Add the following as additional Clause 55.</p> <p><b>“55. Gender and Development</b></p> <p>The Contractor shall comply with the measures set forth in the GAP and allocate adequate resources to fund the implementation of the GAP.”</p>
56	<p>Add the following as additional Clause 56.</p> <p><b>“56. Reportorial Requirements</b></p> <p>The Contractor shall provide the Procuring Entity with quarterly reports of its activities, including each of its obligations in Sub-Clauses 53, 54 and 55.</p>
57	<p>Add the following as additional Clause 57.</p> <p><b>“57. Respectful Work Environment</b></p> <p>The Contractor shall ensure that its employees and sub-contractors observe the highest ethical standards and refrain from any form of bullying, discrimination, misconduct and harassment, including sexual harassment and shall, at all times, behave in a manner that creates an environment free of unethical behavior, bullying,</p>

GCC Clause	
	<p>misconduct and harassment, including sexual harassment. The Contractor shall take appropriate action against any employees or sub-contractors, including suspension or termination of employment or sub-contract, if any form of unethical or inappropriate behavior is identified.</p> <p>The Contractor shall conduct training programs for its employees and sub-contractors to raise awareness on and prevent any form of bullying, discrimination, misconduct and harassment including sexual harassment, and to promote a respectful work environment. The Contractor shall keep an up to date record of its employees and subcontractors who have attended and completed such training programs and provide such records to the Procuring Entity or the Procuring Entity’s authorized representative at their first written request.”</p>
58	<p>Add the following as additional Clause 58:</p> <p><b>58. Fraud and Corruption</b></p> <p>58.1 ADB’s Anticorruption Policy (1998, as amended to date) requires Borrowers (including beneficiaries of ADB-financed activity), as well as Contractors, Subcontractors, manufacturers, and Consultants under ADB-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, ADB</p> <p>(a) defines, for the purposes of this provision, the terms set forth below as follows:</p> <p>(i) “corrupt practice” means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;</p> <p>(ii) “fraudulent practice” means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;</p> <p>(iii) “coercive practice” means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;</p> <p>(iv) “collusive practice” means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party;</p>

GCC Clause	
	<p>(v) “abuse” means theft, waste or improper use of assets related to ADB-related activity, either committed intentionally or through reckless disregard;</p> <p>(vi) “conflict of interest” means any situation in which a party has interests that could improperly influence that party’s performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations;</p> <p>(vii) “obstructive practice” means (a) deliberately destroying, falsifying, altering or concealing of evidence material to an ADB investigation, or deliberately making false statements to investigators, with the intent to impede an ADB investigation; (b) threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to a Bank investigation or from pursuing the investigation; or (c) deliberate acts intended to impede the exercise of ADB’s contractual rights of audit or inspection or access to information; and</p> <p>(viii) “integrity violation” is any act, as defined under ADB’s Integrity Principles and Guidelines (2015, as amended from time to time), which violates ADB’s Anticorruption Policy, including (i) to (vii) above and the following: violations of ADB sanctions, retaliation against whistleblowers or witnesses, and other violations of ADB’s Anticorruption Policy, including failure to adhere to the highest ethical standard.</p> <p>(b) will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations in competing for the Contract;</p> <p>(c) will cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the borrower or of a beneficiary of ADB-financing engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations during the procurement or the execution of that contract, without the borrower having taken timely and appropriate action satisfactory to ADB to remedy the situation;</p> <p>(d) will impose remedial actions on a firm or an individual, at any time, in accordance with ADB’s Anticorruption Policy and Integrity Principles and Guidelines, including declaring ineligible, either indefinitely or for a stated period of time, to</p>

GCC Clause	
	<p>participate<sup>1</sup> in ADB-financed, -administered, or -supported activities or to benefit from an ADB-financed, -administered, or -supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations; and</p> <p>(e) will have the right to require suppliers and contractors to permit ADB or its representative to inspect their accounts and records and other documents relating to the bid submission and contract performance and to have them audited by auditors appointed by ADB.</p> <p>58.2 All Bidders, consultants, contractors, suppliers and other third parties engaged or involved in ADB-related activities have a duty to cooperate fully in any screening or investigation when requested by ADB to do so. Such cooperation includes, but is not limited to, the following:</p> <p>(a) being available to be interviewed and replying fully and truthfully to all questions asked;</p> <p>(b) providing ADB with any items requested that are within the party's control including, but not limited to, documents and other physical objects;</p> <p>(c) upon written request by ADB, authorizing other related entities to release directly to ADB such information that is specifically and materially related, directly or indirectly, to the said entities or issues which are the subject of the investigation;</p> <p>(d) cooperating with all reasonable requests to search or physically inspect their person and/or work areas, including files, electronic databases, and personal property used on ADB activities, or that utilizes ADB's ICT resources or systems (including mobile phones, personal electronic devices, and electronic storage devices such as external disk drives);</p> <p>(e) cooperating in any testing requested by ADB, including but not limited to, fingerprint identification, handwriting analysis, and physical examination and analysis; and</p> <p>(f) preserving and protecting confidentiality of all information discussed with, and as required by, ADB.</p> <p>58.3 All Bidders, consultants, contractors and suppliers shall ensure that, in its contract with its sub-consultants, sub-contractors and other third parties engaged or involved in ADB-related activities, such sub-consultants, sub-contractors and other third parties similarly undertake the foregoing duty to cooperate fully in any screening or investigation when requested by ADB to do so.</p>

<sup>1</sup> Whether as a Contractor, Subcontractor, Consultant, Manufacturer or Supplier, or Service Provider; or in any other capacity (different names are used depending on the particular Bidding Document).

## *Section VI. Specifications*

## TABLE OF CONTENTS

<b>I.</b>	<b>SCOPE OF WORK .....</b>	<b>6-4</b>
<b>II.</b>	<b>LWUA STANDARD SPECIFICATIONS .....</b>	<b>6-4</b>
<b>III.</b>	<b>GENERAL REQUIREMENTS .....</b>	<b>6-4</b>
<b>1.0</b>	<b>ENGINEER’S/NorWD Representative AUTHORITY .....</b>	<b>6-4</b>
<b>2.0</b>	<b>PROTESTS .....</b>	<b>6-5</b>
<b>3.0</b>	<b>ARBITRATION .....</b>	<b>6-6</b>
<b>4.0</b>	<b>RESIDENT ENGINEER’S OFFICE/NorWD Representative .....</b>	<b>6-6</b>
<b>5.0</b>	<b>CONTRACTOR’S EMPLOYEES .....</b>	<b>6-6</b>
<b>6.0</b>	<b>CONTRACTOR’S PROJECT MANAGER .....</b>	<b>6-7</b>
<b>7.0</b>	<b>INSPECTION AND TESTING .....</b>	<b>6-7</b>
<b>8.0</b>	<b>ASSIGNMENT FORBIDDEN .....</b>	<b>6-8</b>
<b>9.0</b>	<b>SUBCONTRACTS.....</b>	<b>6-8</b>
<b>10.0</b>	<b>RIGHT OF WAY.....</b>	<b>6-9</b>
<b>11.0</b>	<b>CONSTRUCTION INTEFERENCES .....</b>	<b>6-10</b>
<b>12.0</b>	<b>CONSTRUCTION STAKES AND REFERENCE MARKS .....</b>	<b>6-11</b>
<b>13.0</b>	<b>LOCAL LABOR AND LABOR-INTENSIVE METHODS .....</b>	<b>6-11</b>
<b>14.0</b>	<b>PERMITS.....</b>	<b>6-11</b>
<b>IV.</b>	<b>TECHNICAL SPECIFICATIONS .....</b>	<b>6-12</b>
<b>1.0</b>	<b>PIPING .....</b>	<b>6-12</b>
<b>2.0</b>	<b>UPVC (UNPLASTIZED POLYVINYL CHLORIDE) PIPE .....</b>	<b>6-12</b>
<b>3.0</b>	<b>MORTAR LINED AND ENAMEL OF MORTAR COATED STEEL PIPE.....</b>	<b>6-15</b>
<b>4.0</b>	<b>INSTALLATION OF PIPES .....</b>	<b>6-22</b>
<b>5.0</b>	<b>STEEL WELDING FITTINGS SHALL</b>	

	<b>CONFORM TO ASTM A-234.....</b>	<b>6-24</b>
<b>6.0</b>	<b>VALVES.....</b>	<b>6-24</b>
<b>7.0</b>	<b>FITTINGS.....</b>	<b>6-29</b>
<b>8.0</b>	<b>WARNING TAPE .....</b>	<b>6-29</b>
<b>9.0</b>	<b>EXCAVATION .....</b>	<b>6-30</b>
<b>10.0</b>	<b>PIPE HANDLING.....</b>	<b>6-32</b>
<b>11.0</b>	<b>INTERCONNECTION.....</b>	<b>6-35</b>
<b>12.0</b>	<b>THRUST BLOCK AND ANCHOR .....</b>	<b>6-36</b>
<b>13.0</b>	<b>BACKFILLING AND COMPACTION.....</b>	<b>6-37</b>
<b>14.0</b>	<b>SURFACE RESTORATION.....</b>	<b>6-37</b>
<b>15.0</b>	<b>PRESSURE AND LEAKAGE TESTING FOR UPVC .....</b>	<b>6-38</b>
<b>16.0</b>	<b>FLUSHING AND DISINFECTION.....</b>	<b>6-39</b>
<b>17.0</b>	<b>SUBMERSIBLE PUMP.....</b>	<b>6-40</b>
<b>18.0</b>	<b>SHOP DRAWINGS AND CATALOG DATA.....</b>	<b>6-43</b>
<b>19.0</b>	<b>AS BUILT DRAWINGS .....</b>	<b>6-43</b>



## I. SCOPE OF WORK

The work items included in the approved Program of Work are pipelaying of approximately 3,250 linear meters of 400 mm diameter uPVC, valves, fittings and appurtenances; and bridge crossing using 400 mm diameter steel pipes, demolition and surface restoration; supply, installation, testing and commissioning of submersible pump, valves, accessories and its appurtenances.

### A. Transmission and Distribution Mains

A total of 3,250 linear meters of transmission main, unplasticized polyvinyl chloride (uPVC) pipes (Series 8), and 125 linear meters spiral welded steel pipes for bridge crossing. The cost for pipelines will cover the supply of pipes and fittings, excavation, backfilling, compaction, pipe disinfection, pavement demolition and restoration.

The uPVC pipe shall conform to the Standard LWUA Specifications and if applicable to the standards prescribed by the American Water Works Association (AWWA), American Society for Testing and Materials (ASTM) and International Organization for Standardization (ISO).

Gate valves, air valves and blow-off assemblies shall be in accordance with the LWUA Standard Specifications for Water System Construction (November 2009).

### B. Electro-Mechanical Equipment

The Contractor shall supply and install the following:

In-line type booster pump (submersible pump) and motor, VFD controlled. high efficiency, with valves, accessories, controls and its appurtenances

## II. LWUA STANDARD SPECIFICATIONS

The revised “*LWUA Standard Specifications for Water System Construction*” (formerly Volume 2 of 2 of the Bidding Documents) shall be part of the Technical Specifications.

Any conflict or discrepancies between the herein *Section VI – Technical Specifications* of the Bidding Documents and the “*LWUA Standard Specifications for Water System Construction*”, the herein *Section VI – Technical Specifications* **shall govern** over the “*LWUA Standard Specifications for Water System Construction*.”

## III. GENERAL REQUIREMENTS

### 1.0 ENGINEER’S/NorWD Representative AUTHORITY

- a. The Engineer, acting as the authorized representative of the Norzagaray Water District, will decide such questions which may arise as to the quality and acceptability of materials and equipment furnished, work performed, rate of

progress of the work, interpretation of the Specifications and Drawings, and those relating to the acceptability in fulfillment of the contract of the Contractor. The Engineer shall thereafter, transmit such reports or recommendations to Norzagaray Water District Administration for confirmation and/or modification within ten (10) days from rendition thereof. Unless otherwise modified/amended or revoked by Administration within ten (10) days from receipt of Engineer's written advice, such instruction, order or decision of the Engineer shall be final and binding upon the Contractor, subject however, to the conditions of Section for Protests.

- b. Any difference which may arise between different contractors under the Engineer's surveillance shall be arbitrated by the latter; however, the Engineer shall not arbitrate disputes between the contractors and subcontractors.
- c. The Engineer will, subject to verification and/or approval by the Administration, certify the estimates of the value of the work completed and materials utilized in accordance with the conditions set forth in Division 10 (Progress and Payments).

## **2.0 PROTESTS**

If the Contractor considers any work demanded of him to be outside the requirements of the contract, or if he considers any order, instruction, or decision of the Engineer or of any inspector to be unfair, he shall immediately upon receipt of such order, instruction, or decision, ask for a written confirmation of the same, whereupon he shall proceed without delay to perform the work or to conform to the order, instruction or decision; thereafter, unless the Contractor finds such order, instruction, or decision as indicated in the said written confirmation satisfactory, he shall, within ten (10) days after receipt of the same, file a written protest with the Engineer, stating clearly and in detail his objections and the reasons thereof. Except for such protests or objections as are made of record in the manner specified and within the time stated therein, the Contractor hereby waives all grounds for protests or objections to the orders, instructions, or decisions of the Engineer and hereby agrees that, as to all matters not included in such protest, the orders, instructions and decisions of the Engineer shall be considered final and binding. All orders, instructions and decisions of the Engineer will be limited to matters properly falling within the Engineer's authority as specified herein (Engineer's Authority).

The Engineer shall resolve the protest within the fifteen (15) days from its filing. If the protest is adversely decided by the Engineer, the Contractor may elevate his protest to the NorWD Administration within ten (10) days from receipt of the Engineer's decision, otherwise, the decision of the Engineer shall be considered final and binding. The NorWD Administration shall, within thirty (30) days from receipt of the protest, give written notice of its decision to the Contractor.

Save as hereafter provided, each decision in respect of every matter so referred shall be final and binding upon the Contractor until the completion of work, and shall forthwith be given effect by the Contractor with all due diligence, whether or not the Contractor requires arbitration as provided in herein (Arbitration). If the NorWD Administration has given notice of its decision to the Contractor and no

claim to arbitration has been communicated to the Administration by the Contractor within ten (10) days from receipt of such notice, the said decision shall remain final and binding upon the Contractor. If the NorWD Administration shall fail to give notice of its decision as aforesaid within a period of thirty (30) days after receipt of protest or if the Contractor be dissatisfied with any such decision, then and in any such case the Contractor may within ten (10) days after the expiration of the aforesaid period of thirty (30) days (as the case may be) require that the matter or matters in dispute be referred to arbitration as provided herein below.

Where, however, the NorWD Administration issues instructions, orders or renders a decision in its own initiative, any protest or objection thereto shall be file directly with the NorWD Administration, and shall be governed by, and resolved in accordance with the procedures herein above provided.

### **3.0 ARBITRATION**

Subject to the provisions of on Protest, all questions still in dispute under the contract may be submitted for arbitration at the option of either party upon written demand to the other party. When formal arbitration is requested, a Board of Arbitrators shall be formed in the following manner: The Owner and the Contractor shall each appoint one member of his Board, and these members shall appoint a third member who shall act as Chairman. If either party fails to appoint its arbitrator within fifteen (15) days from notice or if the appointed members fail to agree upon the third member within forty-five (45) days from notice of arbitration, either party may petition the judge of the proper court in the Municipality of Norzagaray, Bulacan, Philippines, to make the appointments which have not been made as contemplated above. No one with a financial interest in the subject under arbitration will be permitted to serve the Board. This Board may engage experts to act in an advisory capacity. Minutes shall be kept of all meetings and signed by all members of this Board. Decisions of the Board shall require only a simple majority and all interested parties shall be informed thereof. Expenses of the Board shall be initially paid by the party requesting the arbitration, and the manner of payments shall be set forth in an agreement before the proceedings of the Board. However, should the Board finally uphold the claim of the party requesting arbitration, all expenses of the Board shall be paid/reimbursed in accordance with the Board resolution. The decision of the Board shall be binding on both parties.

### **4.0 RESIDENT ENGINEER'S OFFICE/NorWD Representative**

The Contractor shall provide separate, temporary offices for use by the Resident Engineer/NorWD Representative, and others as described by the Owner. The number of offices, size and furnishing shall be specified in the Special Provisions.

### **5.0 CONTRACTOR'S EMPLOYEES**

The employees of the Contractor are not employees of the Norzagaray Water District. Hence, NorWD shall not be liable or responsible for any personal injury or damage including death caused by any of the employees of the Contractor during the lawful performance of their duties. The Contractor shall, at all times stand solely liable and /or responsible for the enforcement of and compliance with all

existing laws, rules and regulations applicable and the Contractor hereby agrees and binds itself to save and hold the Norzagaray Water District free and harmless from any or all liabilities in respect thereto and/or arising therefrom.

## **6.0 CONTRACTOR'S PROJECT MANAGER**

A qualified PROJECT MANAGER, acceptable to the Engineer/NorWD Representative, shall direct the work and shall provide competent supervision of the work until its completion. The project manager shall have full authority to act in behalf of the Contractor, and all directions given by the Engineer / NorWD Representative to the foremen in-charge of the particular work of particular work to which the instructions apply. Such instructions given to a foreman shall likewise be considered given to the Contractor. Such instructions given by the Engineer/ NorWD representative to the project manager or to a foreman, when the concern items of substantial importance, will be confirmed in writing. All instructions and directions given by the Engineer/ NorWD representative will be limited to matters properly falling within the Engineer's authority as specified herein.

Whenever required by existing Philippine laws, the Contractor shall employ the services of a licensed Civil Engineer to direct and supervise all relevant engineering work in accordance with the provisions of the law.

## **7.0 INSPECTION AND TESTING**

- a. All materials furnished and all work performed under the contract shall be subject to inspection by the Engineer/ NorWD Representative. The Contractor shall be held strictly to the true intent of the Specifications and Drawings in regard to quality of materials, workmanship and diligent execution of the contract. Such inspection includes mill, plant, shop, or field inspection as required. The Engineer shall be permitted access to all parts of the work, including plants where materials or equipment are manufactured or fabricated, and he shall be furnished with such materials, information and assistance by the Contractor, his subcontractors and suppliers to make a complete and detailed inspection.
- b. Work done in the absence of prescribed may be required to be removed and replaced under the proper inspection, and the entire cost of removal and replacement, including the cost of all materials shall be borne by the Contractor, regardless of whether the work removed is found to be defective or not. Work covered up without the authority of the Engineer/ NorWD Representative, shall, upon order of the Engineer/ NorWD Representative, be uncovered to the extent required, and the Contractor shall similarly bear the entire cost of performing all the work and furnishing all materials necessary for the removal of the covering and its subsequent replacement, as directed and approved by the Engineer/ NorWD Representative.
- c. The cost of carrying out normal inspections and test such as factory tests for material and equipment to be delivered under the Contract and tests for all materials and equipment after installation when installation is part of the

Contract should be at the Contractor's or Sub-Contractor's expense under their normal contractual obligations.

- d. The Engineer/NorWD Representative will make, or have made, such normal tests as he deems necessary to insure that the work is being accomplished in accordance with the requirements of the Contract the cost of such testing will be borne by the Contractor. In the event such tests reveal non-compliance with the requirements of the Contract, the Contractor shall bear the cost of such corrective measures deemed necessary by the Engineer/NorWD Representative, as well as the cost of subsequent retesting.
- e. For locally manufactured materials and equipment, the Contractor shall require his Supplier to submit in writing to the NorWD schedule /s of production at least five (5) working days prior to start thereof.

#### **8.0 ASSIGNMENT FORBIDDEN**

- a. The Contractor shall not assign, sublet, sell, transfer, or otherwise dispose of the contract or any portion thereof, or his rights, title, or interest therein, or his obligations thereunder, without the prior written approval of the NorWD
- b. If the Contractor violates the provisions of the preceding subsection, the Contract may be terminated at the option of the NorWD. In such event, the NorWD shall be relieved of all liabilities and obligations to the Contractor, and to his assignee or transferee, growing out of such termination.

#### **9.0 SUBCONTRACTS**

- a. Subcontracts may be permitted to such extent as shall be shown to be necessary or advantageous to the Contractor in the prosecution of the work and without injury to the Owner's interests. Individual subcontractor(s) performing work in excess of one-half of one percent of the total contract amount must be approved in advance in writing by the NorWD. The re-subletting of work by a subcontractor shall be subject to the same limitations as an original subletting. Each subcontractor shall be properly licensed for the type of work he is to perform. However, the Contractor shall perform not less than fifty percent (50%) of the total value of work with his own forces.
- b. A copy of each subcontract shall be in writing signed by the Contractor and his subcontractor giving the name of the latter and the terms and conditions of each subcontract and shall be filed with NorWD. Each subcontract shall contain a reference to the Agreement between the NorWD and the Contractor, and the terms of that Agreement shall be made a part of each subcontract insofar as applicable to the work covered thereby. Each subcontract shall provide for annulment of same by the Contractor upon written order of the Engineer/NorWD Representative, if in the Engineer's opinion, the Subcontractor fails to comply with the requirements of the prime contract insofar as the same may be applicable to this work.
- c. The Contractor shall be responsible to the NorWD for the acts and omissions of his Subcontractors and their employees to the same extent as he is

responsible for the acts and omissions of his employees. Nothing contained in this Section shall create any contractual relationship between any Subcontractor and the NorWD or relieve the Contractor of any liability or obligation under the prime contract.

## **10.0 RIGHT OF WAY**

- a. Lands or right-of-way for the work to be constructed under the Contract will be provided by the NorWD as shown on the Drawings. Nothing contained in the Specifications or Drawings shall be interpreted as giving the Contractor exclusive occupancy of lands or right-of-way provided.
- b. Except as may otherwise be provided, the Contractor shall secure, from the agencies having jurisdiction, the necessary permits to create obstructions, to make excavations as required under the Contract, and to otherwise encroach upon rights-of-way, and present evidence to the Engineer that such permission, has been granted before work is commenced. Regulations and requirements of all agencies concerned shall be strictly adhered to in the performance of this Contract, including the furnishing of insurance and bonds required by such agencies. The enforcement of such requirements under this Contract shall not be made the basis for claims for additional compensation.
- c. The Contractor shall not do any work that will affect any oil, gas, sewer, or water pipeline, any telephone, telegraph, or electric transmission line, fence, or any other structure, nor enter upon the rights-of-way involved until notified by the Engineer that the NorWD has secured authority thereof from the proper party. After authority has been obtained, the Contractor shall give said party due notice of his intention to begin work, and shall give said party convenient access and every facility for removing, shoring, supporting or otherwise protecting such pipeline, transmission line, ditch, fence, or structure, and for replacing the same. The Contractor shall not be entitled to extension of time or extra compensation on account of any postponement, interference, or delay caused by any such pipeline, transmission line, fence, or structure being on line of the work.

## **11.0 CONSTRUCTION INTEFERENCES**

- a. As used in this Section, the following words are defined as follows: “utility” shall be understood to include tracks, overhead or underground wires, cables, pipelines, conduits, ducts, sewers or storm drains; the term “service connection” shall be understood to mean all or any portion of a pipeline (including sewer house laterals), conduit, wire, cable or duct, including meter, between a utility distribution line and an individual customer, or customers when served by a single service connection; and the term “construction interference” shall be understood to include any utility or service connection within the limits of excavation or over-excavation required for the work the Contract as shown or as ordered by the Engineer, or any utility or service connection located in the space which will be required by any of the work under the Contract.

- b. In the event that any utility or service connection is required to be disturbed or removed to permit construction of a pipeline or other structure under the Contract, each disturbance or removal shall be done only with the approval of the Engineer/ NorWD Representative, and following notification to the owner of the interfering utility or service connection. Any such utility or service connection removed or otherwise disturbed shall be reconstructed as promptly as possible in its original or other authorized location in a condition at least as good as prior to such removal or disturbance, subject to the inspection of the owner of the same at any stage of the work. For this purpose, the Contractor shall be required, upon completion of that particular phase of the work affecting said utility or connection to present to the NorWD a certificate from the owner of the utility or connection to the effect that the utility or connection removed or otherwise disturbed has been restored in an acceptable condition. The Contractor's responsibility under this Section to remove or replace shall even in the event such damage or destruction occurs after backfilling or is not discovered until after completion of backfilling. The Owner of the utility or service connection shall be notified immediately after damage or destruction occurs or is discovered.
- c. During the performance of the work under this Contract, the owner of any utility affected by the work shall have the right to enter when necessary upon any portion of the work for the purpose of maintaining services and of making changes in or repairs to said utility.
- d. The Drawings show the approximate positions of known utilities and sewer house laterals in the immediate vicinity of the work, but the NorWD does not guarantee that all existing utilities and sewer house laterals are shown, or shown in their correct location. Service connections, except for sewer house laterals, normally are not shown on the Drawings. The Contractor, before commencing any excavation, shall ascertain from records or otherwise, the existence, horizontal and vertical position, and ownership of all existing utilities and service connections. If the Contractor discovers any utility or sewer house lateral in the line of the work which is not shown on the Drawings, he shall immediately notify the Engineer of the existence of the same. The NorWD shall not be liable for any consequences arising as a result of a service connection being incorrectly located in the field by the agency having jurisdiction over said service connection.
- e. All costs involved in removing, relocating, protecting, supporting, repairing, maintaining or replacing a utility which actually constitutes a construction interference, when said utility is shown on the Drawings as an interference, however approximate the location shown may be, shall be borne by the Contractor.
- g. All costs, involved in removing, relocating, protecting, supporting, repairing, maintaining or replacing a service connection larger than 50 mm (2-in) in nominal diameter which actually constitutes a construction interference, when said service connection is shown on the Drawings as an interference, however, approximate the location shown may be, shall be borne by the Contractor.

- h. All costs involved in removing, relocating, protecting, supporting, repairing, maintaining or replacing a service connection 50 mm (2-in) or smaller in nominal diameter which actually constitutes a construction interference, whether or not said service connection is shown on the Drawings, shall be borne by the Contractor.

## **12.0 CONSTRUCTION STAKES AND REFERENCE MARKS**

The Contractor shall set construction stakes establishing lines, slopes and center line and bench marks for pipe work, culvert work, utility lines, structures and other appurtenances, as may be necessary and will furnish the Engineer with all necessary equipment and men for checking lines, slopes, and grades. These stakes and marks shall constitute the field control in accordance with which the Contractor shall execute the work.

The Contractor shall furnish, free of charge, all additional stakes, templates, batter boards, and other materials and supplies necessary for marking and maintaining points and lines established, and shall furnish the Engineer/NorWD Representative such labor as may be reasonably required in establishing points and lines to the satisfactory prosecution of the work. The Contractor shall be held responsible for the preservation of all stakes and marks.

In cases involving any changes in stakeout, the Contractor shall cooperate with the Engineer and facilitate the prompt re-establishment of the field control for the altered or adjusted work.

## **13.0 LOCAL LABOR AND LABOR-INTENSIVE METHODS**

Pursuant to the provisions of Batas Pambansa Blg. 13 (Infrastructure Act for 1979) entitled "An Act Appropriating Funds for Public Works and Highways Projects and For Other Purposes," the Contractor, in the prosecution of the contract, shall give preference to the use of available skilled and unskilled labor in the locality. Before the Contractor can procure unskilled labor from outside the sitio, barangay, poblacion, municipality or city where the project is located a certification to the effect that said labor is not available thereat shall be secured from the Barangay Captain, Municipal or City Mayor, provided that for skilled and specialized skilled labor, procurement may be made from within and outside the province where the project is located, respectively.

Whenever technically practicable and economically feasible, labor intensive methods should be given preference especially in the excavation and laying of pipelines.

## **14.0 PERMITS**

All construction permits, inspection fees if necessary, licenses and taxes due to the national or local government necessary for the implementation of the works shall be processed, secured and paid for by the contractor who shall solemnly be responsible in case of delays.



## IV. TECHNICAL SPECIFICATIONS

### 1.0 PIPING

- a. The Contractor shall furnish and install all required pipes, fittings, closure pieces, supports, bolts, nuts, gaskets, jointing materials, and appurtenances as shown and specified, and as required for a complete and workable piping system.
- b. All exposed piping shall be adequately supported with devices of appropriate design. Where details are shown, the supports shall conform thereto and shall be placed as indicated; provided that support for all piping shall be complete and adequate regardless of whether or not supporting devices are specifically shown.
- c. All pipes shall be laid in a uniform profile as shown on the drawings.

### 2.0 UPVC (UNPLASTIZED POLYVINYL CHLORIDE) PIPE

Pipe shall conform to the requirements of the Philippine National Standard Specification for Unplasticized Polyvinyl Chloride (UPVC) for Potable Water Supply (PNS 65:1993) or equivalent except as otherwise specified herein. This standard specifies the requirements for unplasticized polyvinyl chloride (uPVC) pipes with nominal outside diameter of 63 mm to 500 mm intended for the conveyance of potable water under pressure and of temperatures up to 45°C for use below ground. The Bidder shall provide Environmental Management System – ISO 14001:2015 and Quality Management System ISO 9001:2015. Manufacturer should have proven track record on the manufacturing of uPVC for a minimum period of 5 years.

Nominal Pipe Size Inside Diameter (mm)	Nominal Outside Diameter (mm)	Effective Length (m)	Wall Thickness (t) (mm) Series 8 minimum	Gasket Type
400	400	6.0	22.9	Integrated fixed seal

#### 2.1. Definitions

For the purpose of this specification, the following definitions shall apply:

- (a) nominal pressure (PN) – The nominal maximum internal pressure that the pipe can sustain in continuous use. This is expressed in megapascals (MPa) at 28°C.
- (b) design maximum induced stress – The estimated maximum tensile stress on the wall of the pipe along the transverse axis due to internal pressure to which the pipe can be subjected continuously without failure. This is used in

calculating the wall thickness of the pipe. For the purpose of this specification the maximum induced stress is 8.5 MPa at 28°C.

- (c) pipe series – It is used in classifying the pipe, which is the ratio of the design maximum induced stress to the nominal pressure of the pipe. The pipe series number may be rounded off to the nearest whole number.
- (d) nominal dimensions – Nominal dimensions and values indicated herein are minimum limits as defined in this specification.
- (e) unplasticized polyvinyl chloride (uPVC) pipe – A pipe produced basically from an extrusion grade uPVC material of high molecular weight which does not contain any plasticizer.
- (f) rework material – uPVC plastics from a processor's own production that has been reground, palletized or solvated after having been previously processed.

## 2.2 Classification

Pipes shall be classified in accordance with the pipe Series 8 (PN 1.03 MPa)

In designing the maximum nominal pressure of the uPVC pipe under ambient temperatures other than 28°C, Table 1 – Maximum Induced Stress for Other Temperatures may be utilized in arriving at the maximum induced stress to be used. The said table may also be used in derating the nominal pressures of the pipe specified in this specification.

**Table 1**

### Maximum Induced Stress for Other Temperatures

Coefficient to be Applied to

<u>Water Temperature, t, °C</u>	<u>the Maximum Induced Stress</u>
$0 < t < 25$	1.0
$25 < t < 35$	0.8
$35 < t < 45$	0.63

## 2.3. Requirements

### Materials

- a. The materials from which the pipes are made shall consist substantially of polyvinyl chloride that conforms with PNC 291 or equivalent, to which may be added only those additives necessary to facilitate the manufacture of quality pipes of good surface and sound physical, mechanical and chemical properties.
- b. None of the additives shall be used separately or together in quantities sufficient to constitute a toxic, organoleptic or microbial growth hazard or to

impair the fabrication or welding properties of the product, or to impair the chemical, mechanical and physical properties (particularly long-term hydrostatic and impact strength) as defined in this specification.

- c. The use of the manufacturer's own clean rework material produced during the manufacture and production testing of products conforming with this standard is permissible. No other rework material shall be used.

## 2.4 Taking of Samples

Shall be randomly selected by the NorWD personnel from the pipes intended for delivery and will be subjected to the following test;

- a. Materials, appearance and dimensions
- b. Chemical /Mechanical Test
  1. Quick Burst Pressure– The One (1) meter pipe sample shall withstand the applied pressure for at least 60 seconds without failure. The value for the applied pressure for the pressure test is 4.56 MPa for Series 8 Upvc pipes at 28<sup>0</sup>C.
  2. Short Term Pressure– The pipe shall withstand the applied pressure for at least One (1) hour without failure. The value for the applied pressure test will be 5.2 MPa for Series 8 uPVC Pipes.
  3. Flattening– The pipe shall no show evidence of splitting, cracking and breaking when flattened to a minimum of 40% of its outside diameter.
  4. Impact Test – Pipes with nominal wall thickness of 14.9mm or less, if tested for resistance to external blows at 0°C shall have a true impact rate (TIR) of not more than 10% when tested at the levels given.
  5. Dichloromethane – Cut Specimen shall be submerged in Dichloromethane for 30 minutes; No attack at any part of the surface of the specimen at bath temperature of 150±1 °C.
  6. Shrinkage – Cut specimen will be subjected to oven test with 150 °C for a period of One (1) hour allowable shrinkage shall only be 5%
  7. Fixed Integrated Gasket- type joints shall be used for all pipes sizes and shall be tested Using short term pressure – random sample shall be taken (1 meter strip) composed of a pipe with a hub (0.50m) and pipe nipple (0.50m) joined together with a standard elastomeric sealing ring and shall be subjected to a pressure load for at least 1 (One) hour without leak, the value of the pressure load test shall be 4.30 mpa for series 8 at 28<sup>0</sup>.
  8. Resistance To Internal Pressure –Pipe shall withstand, without bursting or leakage, the hydrostatic stress induced by internal hydrostatic pressure when tested in accordance with ISO 1167-1 and ISO 1167-2, using the test

conditions specified in table 7 below. The manufacturer shall Conduct test and furnish copy of the electronic result of their standard batch testing intended for the procuring Entity's delivery, in compliance with ISO 1452, The 20 ° and 60° Centigrade temperature at Circumferential stress of 42 MPa and 12.5 MPa for 1 hour period and 1000 hrs straight respectively to extrapolate the UPVC life and guarantee its 50 years life, result should be certified by the manufacturer to be furnished.

### **3.0 MORTAR LINED AND ENAMEL OF MORTAR COATED STEEL PIPE**

#### **a. General**

Mortar lined and enamel or mortar coated steel pipe materials and method of manufacture of straight pipe and pipe specials shall conform with Federal Specifications SS-P385a dated January 31, 1964 and Amendment 1 dated February 27, 1968 (hereinafter referred to as "Fed Spec"), subject to the exceptions and supplemental requirements contained in the following Sub-clauses. The pipe, of the diameter and class shown, shall be furnished complete with rubber gaskets if required and all specials and bends shall be provided as shown. Pipe outside diameters shall be as shown in Sub-clause h. Plate thickness of steel diameter specified or shown is minimum wall thicknesses. Shop drawings of all pipes and specials shall be furnished in accordance with Clause 18.0 of Section VI – Specifications

#### **b. Cement**

Cement shall conform with ASTM C-150 and shall be Type 1 for Pipe linings and coatings.

#### **c. Aggregate**

Aggregate shall conform with ASTM C33.

#### **d. Mortar**

The cement mortar used for the lining and coating shall be composed of mixtures of portland cement, aggregate and water, well-mixed and of the proper consistency to produce dense, homogeneous lining and coating that will adhere firmly to the steel cylinder. The cement mortar shall develop compressive strength of not less than 18 MPa (2,600 psi) at twenty-eight (28) days.

#### **e. Cylinder Material**

Cylinders shall be fabricated from hot-rolled carbon steel sheets or plates conforming with ASTM A-570 Grades C, D, or E, ASTM A-283 Grade D; steel pipe conforming with ASTM A-139 Grade B; or, if approved by the

Engineer, high-strength low-alloy steel conforming with ASTM A-572 Grade 42.

f. Rubber Gasket

The rubber gasket shall be the continuous ring type, made of a special composition rubber. The compound shall be of first-grade natural crude, synthetic rubber, or a suitable combination thereof. The gasket shall be so formed and cured as to be dense, homogeneous, and have a smooth surface free of blisters, pits, and other imperfections. The gasket shall be of sufficient volume to fill substantially the recess provided when the joint is assembled and shall be the sole element depended upon to make the joint watertight. Gaskets shall be furnished with the pipe. The compound shall conform with the physical requirements listed below:

<u>Physical Requirement</u>	<u>Value</u>
Tensile strength, min.	
Natural rubber	15.85 MPa (2300 psi)
Synthetic rubber and combination	14.47 MPa (2100 psi)
Ultimate elongation, percent minimum	
Natural	500%
Synthetic and combination	425%
Shore durometer, Type A	40-65
Compression set, percent of original deflection, maximum	20%
Tensile strength after aging percent of original tensile strength, minimum	80%
(Oxygen pressure test or air heat test)	

g. Welded Joints

Where welded joints are provided, weld bell type joints may be used, or the bell may be cut back, or a filler rod added so as to permit a field weld between the bell and spigot joint rings.

h. Pipe Design

Design parameters shall be as follows:

For cement-lined steel pipes

Class 150

<u>Nominal Diameter (mm)</u>	<u>Thickness (mm) of Steel Cylinder, Mortar-coated</u>	<u>Thickness (mm) of Steel Cylinder, Surface Painted</u>
300 and under	3.40	4.70
350 - 500	4.70	6.00

Outside diameters of cement-lined/cement coated, coal-tar coated and surface-painted steel pipes

<u>Nominal Diameter (mm)</u>	<u>Outside Diameter (mm)</u>
100	114.30
150	168.30
200	219.10
250	273.10
300	323.90
350	391.00
400	441.80

i. Lining

The mortar for pipe lining shall consist of one part cement to not more than three (3) parts sand by weight. The cement mortar lining shall be applied by the centrifugal method or by a method obtaining equivalent results. The process used in the application of the lining shall produce a smooth, dense durable surface, free from pockets, voids, over-sanded areas, blisters, and excessively cracked areas. Except where otherwise specified or shown, lining thickness shall be as follows, with a tolerance of plus or minus twenty-five percent (25%):

<u>Nominal Pipe Diameter</u>	<u>Lining Thickness</u>
Under 300 mm	6 mm
300 to 400 mm	13 mm
over 400 mm	20 mm

j. Cement Mortar Coating

The steel reinforcement in the mortar coating shall consist of: (a) Helically wound cold drawn steel wire or, (b) a cage of self-furring welded steel wire fabric of 50 mm x 50 mm No. 14 gage fabric or 50 mm x 100 mm No. 13 gage fabric, or (c) 25 mm No. 18 gage or 37 mm hexagonal No. 17 gage ribbon mesh, twisted wire fabric, salvaged both edges using steel wire. Helically wound steel wire shall be not less than the thickness of No. 14 gage and shall be embedded at the approximate center of the cement mortar coating.

Mortar for pipe coating shall consist of one (1) part cement to not more than three (3) parts sand by weight. The cement mortar coating shall be applied by pneumatic placement or by a method producing equivalent results. Except as otherwise specified or shown, coating shall be 25 mm for all sizes.

k. Curing

The pipe shall be water or steam cured, or a combination of both, or the coating may be cured by covering with a plastic membrane. Water curing and steam curing may be used interchangeably on a time ratio basis of four (4) hours water curing to one (1) hour steam curing.

1. Steam Curing - Where steam curing is used, the pipe shall be kept in steam maintained at a temperature of 55<sup>0</sup>C, for the specified period. The pipe ends shall be tightly capped with waterproofed cover whenever the steam curing is interrupted or completed. The waterproof covers shall be kept throughout and beyond the curing period. The covers shall not be removed until the pipes are to be laid. The Contractor shall furnish the Engineer copies of recorded charts showing temperature and duration of curing period.
2. Water Curing - Where the water curing is used, the pipe shall be kept continually moist by spraying or other means for seven (7) days before being moved to the trench side. The pipe shall not be allowed to dry either on the inside or outside surfaces during the curing period. The pipe shall be tightly capped with a waterproof cover immediately upon completion of the lining of each section to prevent the escape of moisture from the interior of the pipe. When additional moisture is required to maintain a moist condition, water shall be introduced inside the pipe after the mortar has attained sufficient set so that the introduction of water will not damage the mortar. The pipes shall be water-cured for a minimum of twenty-four (24) hours before application of the coating.

l. Compressive Strength for Mortar

Test cylinders shall be cast samples of the mortar used in lining and coating the pipe. The curing of test cylinders shall be in conformity with the curing of the pipe. Cylinders shall be molded and tested in accordance with ASTM C39 or C109.

m. Hydrostatic Pressure Test

All steel cylinders shall be subjected to a hydrostatic pressure test, which stresses the steel to 172.36 MPa. While under pressure test, all welds shall be thoroughly inspected and all parts showing leakage shall be marked. Cylinders which show any leakage under test shall be re-welded at the point of leakage and subjected to another hydrostatic test.

n. Specials

1. Definition

Specials are defined as bends, reducers, wyes, tees, crosses, outlets, and manifolds, wherever located, and all piping above ground or in structures.

## 2. Design

Except as otherwise provided herein, materials, fabrication, and shop testing of straight pipe shall conform with the "AWWA Standard for Steel Water Pipe 6 Inches and Larger" (AWWA C-200). Minimum plate thickness of specials shall be computed using the following formula:

$$T = DP/2(Y/S)$$

where:

T = plate thickness in inches

D = outside diameter of steel cylinder in inches

P = design pressure (psi)

S = factor of safety, 2.50

Y = specified yield point of steel in psi

But in no case shall the design stress (Y/S) exceed 91 MPa (13,200 psi) nor shall plate thickness be less than the following:

Nominal Pipe Diameter (mm)	Pipe Manifolds Piping Above Ground Piping in Structures Fittings above Ground (mm)	Fittings Underground Installation (mm)
300 and under	4.70 mm	4.70 mm
350 - 500	6.00 mm	4.70 mm

## 3. Outlets, Tees, Wyes, and Crosses

Outlets shall be welded to the steel cylinder of the pipe following application of mortar coating to the cylinder. Following this, all outlets larger than 50 mm (2 in.) in diameter shall be provided with steel reinforcing saddles, wrapper plates, or crotch plates, or they shall be fabricated in their entirety of steel plates having a thickness equal to the sum of the required thickness of the saddle or wrapper plate, plus the cylinder to which they are attached.

Such saddles or wrapper plates shall be of steel plate at least 1.25 times the thickness of the pipe cylinder to which the outlet is attached. The total cross-sectional area of the saddle or wrapper plate be at least 1.25 times the product of the cut-out length and the plate thickness of the pipe, as



determined by the equation in Clause (n) (2). The overall width of the saddle or wrapper plate shall not be more than 2 times, and not less than 1.67 times, the maximum dimension of the cut-out. Outlets 300 mm (12 in.) and smaller may be fabricated from Schedule 30 or heavier steel pipe in the standard outside diameters, i.e., 324 mm (12-3/4 in.), 273 mm (10-3/4 in.), 219 mm (8-5/8 in.), 169 mm (6-5/8 in.), and 114 mm (4-1/2 in.).

Where required, crotch plates shall be provided, designed according to the nomograph method described in AWWA Manual M-11, section 19.5, or AWWA Journal, Vol. 47, No.6, June 1955, pp. 617 to 623.

Tees, wyes, and crosses shall either be fabricated of steel plate or provided with wrapper plates or with crotch plates. The thickness of the plate or plates, exclusive of crotch plates, being such that when multiplied by the diameter of the opening, will be not less than 1.25 times the cross-sectional area of the cut-out. Where tees, wyes, or crosses are fabricated from steel plate without wrapper plates, the thickness of the plate shall not be less than 2.5 times the required plate thickness shown in the preceding table for such fittings.

#### 4. Dimensions

Unless otherwise shown, dimensions of specials shall conform with "AWWA Standard for Dimensions for Steel Water Pipe Fittings" (AWWA C-208) for Service in Transmission and Distribution Systems.

#### 5. Steel Welding Fittings

Steel welding fittings shall conform with ASTM A234.

#### 6. Ends for Mechanical-Type Couplings

Except as otherwise provided herein, where mechanical-type couplings are indicated, the ends of the pipe shall be banded with Type C collared ends using double fillet welds. Where pipe 300 mm (12 in.) and smaller is furnished in standard schedule thickness, and where the wall thickness equals or exceeds the coupling manufacturer's minimum wall thickness, the pipe ends may be grooved.

## 7. Flanges

Where the design pressure is 1.2 MPa (175 psi) or less, flanges shall conform with either AWWA C-207 Class D, or E, or ANSI B16.5 1.0 MPa (150 psi) class. Where the design pressure is greater than 1.2 MPa (175 psi), flanges shall conform with ANSI B16.5 2.0 MPa (300 psi) class. Flanges shall have flat or raised faces. Flanges shall be attached with bolt holes straddling the vertical axis of the pipe.

## 8. Shop testing

Upon completion of welding, but before lining and coating, each special shall be bulk-headed and tested under a hydrostatic pressure of not less than one and one-half (1-1/2) times the pressure for which the pipe has been designed; provided, however, that if straight pipe used in fabricating the special has been previously tested in accordance with Sub-clause (n) (2) herein, the circumferential welds may be tested by a dye penetrant process using liquid penetration test conforming to ISO or AWWA standards. Any pinholes or porous welds, which may be revealed by the test, shall be chipped out and re-welded and the special retested.

## 9. Lining

All requirements pertaining to thickness, application, and curing of lining specified for straight pipe shall apply to specials, with the following provision. If the special cannot be lined centrifugally, it shall be lined by hand. In such case, the lining shall be reinforced with 50 mm x 100 mm (2 in. x 4 in.) No. 12 welded wire fabric positioned approximately in the center of the lining. The wire spaced 50 mm (2 in.) on centers shall extend circumferentially around the pipe with the fabric securely fastened to the pipe. Splices shall be lapped 100 mm (4 in.) and the free ends tied or looped to assure continuity.

## 10. Coating

All requirements pertaining to thickness, application, and curing of coating specified for straight pipe shall apply to specials. Unless otherwise shown, the coating on the buried portion of a pipe section passing through a structure wall shall extend 50 mm (2 in.) inside the outer surface of the wall, or to the wall flange, if one is indicated. Pipe above ground or in structure shall be field-painted as specified in Division 27 - Painting and Coatings.

## 11. Marking

A mark indicating the true vertical axis of the special shall be placed on the top and bottom of the special.

o. Cleanliness of Pipe

The interior of each pipe section and special shall be clean and free of foreign materials when they are delivered to the site of the work.

p. Transport and Handling

1. General

Coal tar enamel and cement mortar coated steel pipe shall be transported and handled as specified herein. Any pipe section that becomes damaged as a result of improper transporting, handling or stockpiling shall be repaired to the satisfaction of the Engineer. Where damaged areas are extensive or where, in the Engineer's opinion, field repairs are not practicable, the Engineer may order the Contractor to remove the damaged pipe section from the site of the work and replace it with a new section.

2. Coal Tar Enamel Coated Steel Pipe

Transporting and handling of enamel coated pipe shall conform with the requirements of AWWA Standard C-203. After enamel coated pipe has been delivered trench side, any section of pipe which, in the Engineer's opinion, indicates possible coating damage, shall be spark tested by the Contractor, in the presence of the Engineer, at the expense of the Contractor. Any damaged areas in the enamel coating shall be field-repaired using hot coal tar enamel or the section of pipe replaced as specified above.

3. Cement Mortar Coated Steel Pipe

Pipe shall be lifted by means of a padded fork lift or by belt slings in such a manner as to minimize bending of the pipe section use and prevent damage to the coating. When being transported, pipe shall be supported in a manner that will prevent distortion or damage to the lining or coating. When not being handled, pipe shall be stockpiled on timber cradles or properly prepared ground with all rock eliminated. Damaged pipe shall be repaired or replaced as specified above.

## **4.0 INSTALLATION OF PIPES**

### **4.1 General**

Unless otherwise provided, the Contractor shall furnish and install all pipes, specials, fittings, closure pieces, valves, supports, bolts, nuts, gaskets, jointing materials and all other appurtenances as shown and as required to provide a complete and workable installation. Where pipe support details are shown, the supports shall conform thereto and shall be placed as indicated; provided, that the support for all exposed piping shall be complete and adequate regardless of whether or not supporting devices are specifically shown. Concrete thrusts blocks, anchor

blocks or welded joints shall be provided at all junctions, changes in all direction exceeding 11-1/2 degrees or where otherwise shown. At all times when the work of installing pipe is not in progress, all openings into the pipe and the ends of the pipe in trenches or structures shall be kept tightly closed to prevent entrance of animals and foreign materials. The Contractor shall take all necessary precautions to prevent the pipe from floating due to water entering the trench from any source, shall assume full responsibility for any damage due to this cause and shall at his own expense restore and replace the pipe to its specified condition and grade if it is displaced due to floating. The Contractor shall maintain the inside of the pipe free from foreign materials and in a clean and sanitary condition until its acceptance by the Owner.

#### **4.2 Laying**

Trenches shall be in a reasonable dry condition when the pipe is laid. Necessary facilities including slings shall be provided for lowering and properly placing the pipe section in the trench without damage. The pipe sections shall be laid to the line and grade when shown and they shall be closely jointed to form a smooth flow line. Immediately before placing each section of pipe in final position for jointing, the bedding for the pipe shall be checked for firmness and uniformity of surface.

#### **4.3 Field-Welded Joints**

Field welding of pipe joints shall conform to the requirements of the "AWWA Standards for Field Welding of Steel Pipe Joints" (AWWA C-206). Prior to welding, such joints shall be inspected and approved by the Engineer / NorWD Representative before any protective coating is placed around the outside of the joint.

#### **4.4 Protective Coatings**

With pipe smaller than 450 mm (18 in.) in diameter, before the spigot is inserted into the bell, the bell shall be daubed with mortar containing one (1) part cement to three (3) parts sand. The spigot end then shall be forced to the bottom of the bell and excess mortar on the inside of the joint shall be swabbed out. With pipe 450 mm (18 in.) in diameter and larger, joints shall be pointed on the inside with mortar as specified for field joints in AWWA Standard C-205 after the backfill has been placed. After coated pipe sections have been joined, the coating shall be made continuous across the joints forming a coating equivalent to the factory-applied coating of adjacent pipe sections.

After the pipe sections on cement mortar coated pipe have been joined, but before backfilling has been completed, the outside annular space between pipe sections shall be completely filled with grout. The grout shall be poured in such a manner that all exposed portions of metal joints shall be completely protected with cement mortar. Grout shall consist of one (1) part cement to three (3) parts sand, by weight and shall be sufficiently fluid to permit it to be poured into the joint space. Exterior field joints shall be coated with cement mortar, retained by suitable forms, so as to bridge the joint. The mortar shall be compacted within the form to produce dense

coating without voids. The joint coating shall be kept moist until the backfill is placed.

#### **4.5 Butt-straps**

Where a butt-strap is used, both the interior and exterior surfaces of the butt-strap shall be given a coating equivalent to the factory-applied coating of the adjoining pipe sections. Mortar coating shall be reinforced with wire mesh. The mortar lining shall be reinforced with wire mesh where the exposed length of the butt-strap, as measured between the ends of the connected pipe section, exceeds 100 mm (4 in.). Butt-straps used as closure pieces shall be provided with hand holes for repair of the lining.

### **5.0 STEEL WELDING FITTINGS SHALL CONFORM TO ASTM A-234**

#### **5.1 Ends for Mechanical-Type Couplings**

Except as otherwise provided herein, where mechanical-type couplings are indicated, the ends of the pipe shall be banded with Type C collared ends using double fillet welds. Where pipe 300 mm (12 in.) and smaller is furnished in standard schedule thickness, and where the wall thickness equals or exceeds the coupling manufacturer's minimum wall thickness, the pipe ends may be grooved.

#### **5.2 Flanges**

Where the design pressure is 1.2 MPa (175 psi) or less, flanges shall conform to either AWWA C-207 Class D or E, or ANSI B16.5 1.0 MPa (300 psi) class. Flanges shall have flat or raised faces. Flanges shall be attached with bolt holes straddling the vertical axis of the pipe.

### **6.0 VALVES**

#### **6.1 General**

- a. The Contractor shall furnish and install all valves as specified herein and as shown on the Drawings. All valves shall be new and of current manufacture.
- b. Flanged valves may be plain faced with serrated gasket surface or raised. Flanges of valves for water working pressure of 1.2 MPa (175 psi) or less shall be faced and drilled to 125-lb American Standard dimensions; flanges of valves for water working pressures greater than 1.2 MPa (175 psi) shall be faced and drilled to 250-lb American Standard dimensions.
- c. Each valve body shall be tested under a test pressure equal to twice its design water working pressure.

- d. All valves shall be provided with an exterior protective coating in accordance with the provisions of Clause 14 - Painting and Coatings (*LWUA Standard Specifications for Water System Construction*).
- e. When the operating nut of a buried valve is located more than 1.5 metres (5 ft) below the ground surface, the Contractor shall provide and install in the valve box a stem extension. The bottom of the extension shall be securely fastened to the operating nut of the valve, and the top of the extension shall be centered in the valve box.
- f. The Contractor shall furnish a minimum of six (6) tee-handle valve keys of variable lengths sufficient to permit operation of all buried valves regardless of depth, by operators of average height working in normal position. Where the number of valves to be provided exceeds thirty (30) units, the Contractor shall provide one (1) valve key for every five (5) additional valves or a fraction thereof.
- g. Operating nut shall turn counter-clockwise to open.
- h. Shop drawings for all valves shall be furnished in accordance with Clause 18.0 - Shop Drawings of Section VI - Specifications.

## 6.2 Gate Valves

### a. Valves

This Clause applies to gate valves 50 mm (2 in.) through 300 mm (12 in.) in size. All valves shall conform with the "Standard for Resilient Seated Gate Valves" (AWWA C509). Gate valves where the pipeline design pressure is 1.0 MPa (150 psi) or less shall be designed for a minimum water working pressure of 1.0 MPa (150 psi) and shall be cast iron bodied, with resilient seats applied to the body or gate. Discs shall be cast iron with bronze disc rings, and the seat ring shall be bronze and replaceable. The valve shall be non-rising stem with a minimum of two "O" ring seals (at least one above the stem collar), or rising stem when shown on the Drawings. The valves shall have a 50 mm (2 in.) square operating nut with a cast arrow showing direction in which the nut is to be turned to open the valve. Valves shall be constructed to permit the replacement of the "O" rings above the stem collar under full working water pressure with the valves in the full open position. The valves shall be coated in accordance with Clause 14 - Painting and Coatings (*LWUA Standard Specifications for Water System Construction*).

### b. Testing Requirements

#### 1. Operation Test

Each valve shall be operated in the position for which it was designed to ensure free and perfect functioning of all parts in the intended manner. Any defects of workmanship shall be corrected and the test repeated until satisfactory performance is demonstrated.

## 2. Shell Test

A hydrostatic test pressure equal to twice the rated working pressure of the valve shall be applied to the body with the gate in the open position. The test shall show no leakage through the metal, flanged joints, or stem seals.

## 3. Seal Test

A test shall be made at rated working pressure to prove the sealing ability of each valve from both directions of flow. The test shall show no leakage through the metal, pressure-containing joints, or past the seat.

## 4. Hydrostatic Test

One prototype valve of each size and class of a manufacturer's design shall be hydrostatically tested with twice the specified rated pressure applied to one side of the gate and zero pressure on the other side. The test is to be made in each direction across the gate. Under this hydrostatic test, the manufacturer may make special provisions to prevent leakage past the seats. No part of the valve or gate shall be permanently deformed by the test.

## 5. Torque Test

A prototype of each size should be over torqued in the closed and open positions to demonstrate no distortion of the valve stem or damage to the resilient seat as evidenced by failure to seal at rated pressure. The applied torque shall be 250 ft-lb for 3 and 4 NRS valves, and 350 ft-lb for 6, 8, 10, and 12 NRS valves (1.0 ft-lb = 0.736 Newton-metre = 0.66 kg-m).

## 6. Leakage Test

Two prototype valves of each size chosen by the NorWD quality control inspector to represent the extremes of seat compression shall be fully opened and closed to a seal for 500 complete cycles with sufficient flow that the valve is at 200 psi pressure differential at the point of opening and closing. The valves shall be drop tight under rated pressure differential applied alternately to each side of the gate after completion of the tests.

## 7. Pressure Test

One prototype of each valve size shall be tested to 500 psi with the closure member in the open position. There shall be no rupture or cracking of the valve body, valve bonnet, or seal plate. Leakage at pressure-containing joints shall not be a cause for failure of the test.

### 6.3 Butterfly Valves

#### a. Valves

Butterfly valves shall conform with the "AWWA Standard for Rubber-Seated Butterfly Valves" (AWWA C504) subject to the following requirements:

Valves shall be of Class 150B and, unless otherwise shown, may either be short-bodied or long-bodied. Shaft seals shall be designed for use with standard split V-type packing or "O" ring seals. The valve ends shall be either flanged or of the wafer type except where otherwise shown on the Drawings.

#### b. Operators

Operators shall conform with the above-referenced AWWA Standard, subject to the following requirements: Valves shall be equipped with 50 mm (2 in.) square operating nuts or with hand wheel 600 mm (24 in.) maximum diameter as shown, and shall be provided with watertight gear housings. The valve manufacturer shall furnish a written certification stating that the operator torque has been computed and the operators have been sized to meet the full AWWA Class specified in Sub-clause (a) herein.

#### c. Testing Requirements

##### 1. Performance Tests

Each valve that has the operator mounted directly on the valve shall be shop-operated three times from the fully closed to the fully opened position, and the reverse, under a no-flow condition to demonstrate that the complete assembly is workable.

##### 2. Leakage Tests

Each valve shall be shop-tested for leaks in the closed position. The test shall be conducted with the body flanges in a horizontal plane. With the disc in the closed position, air pressure shall be supplied to the lower face of the disc for the full test duration as follows:

Class 25A and 25B	:	0.17 MPa (25 psi)
Class 75A and 75B	:	0.52 MPa (75 psi)
Class 150A and 150B	:	1 MPa (150 psi)

The upper surface of the valve disc shall be visible and shall be covered with a pool of water at 0 psi pressure. The length of test shall be at least five (5) minutes, and there shall be no indication of leakage past the valve disc (visible in the form of bubbles in the water pool on top of the disc) during the test period. As an alternative to this test procedure, Class 150A or 150B valves may be given a 150 psi hydrostatic test. During the test, the valves shall be drop tight.



### 3. Hydrostatic Test

All valve bodies shall be subjected to an internal hydrostatic pressure equivalent to two times the specified shut-off pressure. During the hydrostatic test, there shall be no leakage through the metal, the end joints or the shaft seal, nor shall any part be permanently deformed. The time duration of the hydrostatic test shall be sufficient to allow visual examination for leakage and shall be at least one (1) minute for valves 8 inches and smaller, three (3) minutes for valves 10 through 20 inches and ten (10) minutes for valves 24 inches and larger.

### 4. Proof-of-Design Tests

Upon request, the manufacturer shall furnish certified copies of the reports covering the tests. One prototype valve of each size and class of a manufacturer's design shall be hydrostatically tested with twice the specified shut-off pressure applied to one side of the disc and zero pressure on the other side. The test is to be made in each direction across the disc and, in the case of flanged valves, the valve body shall be bolted to a flanged test head. Under the hydrostatic test, the manufacturer may make special provisions to prevent leakage past the seats. No part of the valve or disc shall be permanently deformed by the test. It is the purpose of this Clause to provide evidence on the adequacy of each basic type offered by a manufacturer to perform under design pressures within the applicable rating for a sufficient number of operations simulating a full service life. The adequacy is to be proven by tests made on valves selected to represent each basic type of seat design of a size within each applicable group shown in the table below and in a pressure class or classes equal to or greater than the valves being purchased. The required number of cycles appears in the table below:

Test Cycles Required	
<u>Size Group (inches)</u>	<u>No. of Cycles</u>
3 – 20	10,000
28 – 42	5,000
48 – 72	1,000

Every cycle shall consist of applying the differential pressure to the disc in the closed position, then opening the valve (which will relieve the pressure) to the wide-open position and then closing the disc. The valve shall be drop tight under the rated pressure differential upon completion of the cycle test.

## 6.4 Air Release Valves

Air release valves up to and including 75 mm (3 in.) in diameter shall have threaded connections, except where otherwise shown on the drawings, and shall be designed for a water working pressure of 1.0 MPa (150 psi). The body shall be of high

strength cast iron and the float shall be of stainless steel. All internal parts, except the seat, shall be of stainless steel or bronze. The seat shall be of material insuring water tightness with a minimum of maintenance. The valve shall be designed to automatically permit the escape of accumulated air under pressure while the pipe is in operation. The valves shall be either direct or lever operating.

## **6.5 Miscellaneous Small Valves**

Valves 50 mm (2 in.) and smaller, unless otherwise shown, shall be all bronze or brass with threaded connections designed for a water working pressure not less than 1.0 MPa (150 psi). Material specifications for brass valves shall have a commercial designation of 85-5-5-5 in accordance with ASTM B584, UNS No. 83000.

Valves for service connections shall be ball valve type with lock wing.

## **7.0 FITTINGS**

### **7.1 Flanges**

Standard flanged cast iron pipe fittings shall conform with the requirements of the "American Standard for Cast-Iron Pipe Flanges and Flanged Fittings" (ANSI B16.1), Class 125.

### **7.2 SHORT BODY CAST IRON FITTINGS**

Short body cast iron fittings shall conform with the requirements of the "American Standard for Cast-Iron and Ductile Iron Fittings, 2 in. through 48 in., for Water and Other Liquids" (AWWA C-110) or "Cast Iron Pipes, Special Castings and Cast Iron Parts for Pressure Main Lines", ISO R13. Fittings shall have a wall thickness of not less than that of the pipe with which they are used and the ends shall have inside diameters suitable for making a watertight joint with the cast iron pipe furnished.

## **8.0 WARNING TAPE**

### **a. Material**

The Contractor shall be furnish for each pipe above or equal to 75 mm an Alu-foil tape (minimum width is 4 cm) with the mention "Attention Water Main."

### **b. Installation**

The warning tape shall be laid into the trench between two backfill layers at 30 cm above the pipe.

## **9.0 EXCAVATION**

### **9.1 Preparation:**

1. Advance written notice should be given to the government agencies concerned, affected driveways of households and other establishments for information.
2. Excavation permits, if necessary, should have been secured from the government agencies that have jurisdiction over the project.
3. Always refer to the detailed plan for the correct field location, alignment, trench and bedding specifications before mobilization and excavation begins.
4. Make sure that all the necessary bollards, barricades and warning devices or whatever is needed are properly placed to protect the safety of the construction crew and the public.
5. Alignment of pipeline trench should always be between the property and the existing pipelines or within three (3) meters away from the property line.
6. If the proposed location of the trench is below the asphalt or concrete pavement, concrete cutter should be used in breaking asphalt or concrete pavements.
7. Asphalt and concrete cutting and breaking should be implemented in advance prior to the schedule to the schedule of the excavation and pipe laying activities.
8. All asphalt and concrete debris should be hauled away immediately to avoid using them as backfill materials.
9. No trenching should be allowed to start and proceed without the required bollards, barricades and warning devices.
10. All pipelines, valves and fittings, construction materials, tools, equipment's, etc. must be prepared, ready and available. No Excavation for any section of the pipelines installation shall be performed until pipelines, valves and fittings, construction materials and all other materials necessary to complete the installation are on hand.

### **9.2 TRENCH EXCAVATION**

1. Unless otherwise shown or ordered, excavation for pipelines shall be open cut trenches. Trench should be straight, with vertical sides centered on the pipe centerline
2. Trench excavation should not extend too far ahead of pipe laying for safety reasons. The maximum amount of open trench permitted at any one time at one location shall be 300 meters, or the length necessary to accommodate the amount of pipe installed in a single day, whichever is greater.

3. Barricades and warning lights shall be provided and maintained for all trenches left open overnight, except at intersections and driveways in which case of heavy steel plates adequately braced bridges or other type of crossing capable of supporting vehicular traffic shall be furnished as directed by the Engineer. Or, do not leave open trenches overnight at all. An open trench presents a danger to the construction.
4. The trench width should be from 0.30 to 0.90 meter greater than the outside diameter of the pipe.
5. The trench walls may have to be "sloping" when the soil is not stable.
6. For curve alignments, the trench width should be greater than the usual to accommodate the permissible deflection of the joints.
7. Trench bottom must be uniform, free from humps, abrupt change of direction hard objects, large object /or sharp stones, and tree roots.
8. Trenches shall be over-excavated beyond the desired depth only when ordered by the Engineer such over excavation be to the depth ordered. The trench shall then be refilled to the grade of the bottom of the pipe with sand until the pipe is covered with the specified thickness and then with selected granular materials obtained from the excavation.
9. In unstable ground, during over-excavation, the trench walls may be shored or sloped.
10. Except where trees are shown on the drawings to be removed, trees shall be protected from injury during construction operations and no tree is to be removed without written permission or permit if necessary. Tree roots can be trimmed and cut if it is an obstruction only with the permission of the Engineer.
11. Water must be kept out of the trench during construction so that the pipe will not become contaminated. Dewatering pumps should be used in the trench if necessary, to remove any building up of water.

### **9.3 SAND BEDDING (IF REQUIRED BY THE ENGINEER)**

2. The trench bottom must be properly leveled and free from large and/or sharp stones and objects so that the full length of the pipe will have continuous, firm support.
2. When required by the Engineer, sand bedding should be spread over the trench bottom to the full width of the trench with the thickness of 150mm.
3. Compacted sand shall also serve as a backfill material to the both sides of the pipelines and 150mm. above the outside diameter of the pipe. Also refer to the "Trench Excavation detail".

## **10.0 PIPE HANDLING**

### **10.1 For uPVC Pipes**

1. If possible, pipe materials should be loaded/unloaded using some form of mechanical lifting equipment. Whatever method used should prevent abuse and damage to the pipe materials.
2. In handling the pipes, no hooks, chains, or similar metal devices should contact the pipe at any failure points.
3. In smaller sizes of pipes, it can be loaded / unloaded by two or more people carrying at both ends or with persons at the middle.
4. Pipes should never be dragged along the ground or road.
5. All pipes, fittings and gasket materials should be kept as clean as possible and be protected from any contamination.
6. Pipes should be unloaded as near to the trench as possible to where they are to be used, so as to avoid excessive handling.
7. The pipe should be laid on the side opposite the excavated material or equipment, or, if trench is not yet opened, opposite where these will be positioned.
8. Pipes should be secured against rolling into the trench and kept safe from traffic and heavy equipment.
9. The bell end of the pipe should be placed towards the direction of the work, as during the installation the spigot end will enter the bell end of the previously laid section.
10. Lifting equipment should be used to lower larger pipes; for which a webbing sling should be attached to the pipe.

### **10.2 Pipelaying For uPVC Pipes**

1. After the trench bottom has been prepared and the 150mm thickness of sand bedding or selected materials has been placed, the pipe may be set in place.
2. Pipes should be free from damaged. Any unsatisfactory sections should be rejected.
3. The inside of each pipe length should be clean. Any dirt, oil, grease, animals and other foreign materials should be removed.
4. Clean the bell of all dirt or foreign material that could interfere with the proper seating of the fixed gasket or integrated gasket.

5. Examine the interior of pipe for any soil or debris which, if found, shall be removed by brushing scrapping or rinsing.
6. Clear then apply approved lubricant to the tapered end of the pipe.
7. Align the pipe spigot and the taper end of the other pipe to the reference mark.
8. Align the spigot and bell, then push the spigot all the way into the bell until the reference mark is flush with the end of the bell. This mark should never exceed 9mm from the end of the bell after jointing.
9. When making field cuts, it is best to use pipe cutter to assure the uniformity of the cut, but a conventional wood saw or hacksaw may be used to cut the pipe.
10. Field cut end needs to be beveled. Use a steel pipe to bevel the pipe and be sure to copy the factory bevel angle of 15 degrees. Also, add a guide mark on each pipe joint end.
11. During the lowering of uPVC pipes, one man should supply pressure against the unjointed end of the string to insure that none of the pipe slip back from the seating.
12. After lowering examine the guide mark on each joint of the pipelines to ensure that it has not move more than 9mm from the original setting.

### **10.3 Pipelaying For Steel Pipes (Surface Painted/Cement Coated/ Cement Lined)**

1. Always check lining and coating for damage. Repair the large cracks and/or loose mortar in coating. Small cracks in the lining are less a concern as they will heal after introduction of water.
2. Look at pipe ends and body of pipe for damage that may have occurred during the transportation and handling. Badly damaged sections have to be discarded while others shall be repaired.
3. The interior of each pipe section shall be clean and free from foreign materials at all times especially during the pipe laying activity.
4. Pipes larger than 600mm shall assemble at the trench, pipes smaller than 600mm shall be assemble at the above the trench and shall be lowered using a chain hoist or by the appropriate mechanical equipment.
5. Welded joints are either lap joint or butt strap joint.
6. Lap joints and butt strap joints may be welded from the outside of the pipe or from the inside if the diameter is large enough.

7. The butt strap shall have a minimum plate thickness of 3.5 mm. provide a hand hole where the lining of the butt strap joint cannot be reach for welding by the crew or as instructed by the Engineer.
8. Inside joints of cement lined steel pipes shall be plastered with cement mortar.
9. For diameters smaller than 450mm, the shoulder of the bell is buttered with a stiff mortar containing 1 part cement and 3 parts sand prior to installing the next section of pipe.
10. Use a swabbing device, such as an inflated rubber ball wrapped in burlap, to wipe away the excess mortar, making a smooth, flush, inside joint. A wire is threaded through the pipe section to be laid and attached to the ball prior to joining the pipe. When the sections are joined, the spigot squeezes the mortar into position against the shoulder of the ball, and the swabbing device is pulled from the previously laid sections passing the joint.
11. For larger diameters than 450mm, the inside joint is hand pointed with the stiff mortar after the pipe is in place. The mortar shall contain 1 part cement and 2 parts sand, dry mixed and moistened with just sufficient water to permit caulking and troweling without crumbling.
12. The pipe shall not be put in service or be subjected into a hydraulic test until the mortar has cured a minimum of 24 hrs.
13. Exterior joint spaces are filled with a cement mortar grout consisting of 1 part cement to not more than 3 parts of sand mixed to a flowing consistency.
14. A diaper should be placed around the joint and fastened with metal strapping or similar material. The gout is poured into an opening at the top of the pipe. The grout poured down one side of the pipe will flow up the other; then the top of the pour can be covered with protective material.
15. Surface painted steel pipes shall be used in exposed environment such as eroded portion and bridge crossing, etc.
16. Outside joints of surface painted steel pipes shall be painted with galvanized iron primer and coated with Blue colored semi-gloss marine enamel paint as final paint.
17. Lower the pipe into the trench by using chain hoist or mechanical equipment if possible. In smaller diameter pipelines, pipes maybe lowered into the trench by two people using ropes, one rope looped around near each end of the pipe. Do not roll the pipes into the trench from the top.

18. Larger pipe sizes are best handled with appropriate equipment. The pipe is usually supported by a sling in the middle of the pipe length when lowered by a machine. The sling must be removed once the pipe is inside the trench.
19. Make sure that the entire length of the pipe section is in contact with the ground.
20. Pipe lengths should never be deflected in the joints to any degree than that recommended by the manufacturer.
21. Always check the inside of the pipe. Do not leave open ends of installed pipes. It should be plugged and secured to prevent the entry of animals, dirt, trench water and any other foreign materials

## **11.0 INTERCONNECTION**

1. No interconnection shall be done without the approval of the engineer, an interconnection permit shall be secured first.
2. Prepare all the necessary materials, fitting, tools, equipment, barricades, warning devices, etc.
3. Inspect the valves and fittings for conformance to shop drawings and materials.
4. Contractor must notify NorWD or the affected consumers in the area for low water supply or possible interruption of water supply.
5. Isolate the sections of the mainline by closing the nearest isolating valves if applicable
6. Open a hydrants /blow-off valves or tap to relieve line pressure.
7. Cut the interconnection portion of the pipe line. it is best to use pipe cutter, to assure uniformity of cut, but a conventional wood saw or hacksaw will suffice for uPVC pipes, for CLCCSP – Steel pipes the appropriate tools and equipment must be used.
8. Dewater the excavation.
9. Maneuver the fittings into the proper position after making sure that the pipe ends are properly cut.
10. Always check the alignment of all valves and fittings involved.
11. Make sure that the rubber gaskets re not damaged for uPVC pipes and for steel pipes alignment is important, clean and free from dust and other foreign materials.



12. Nut tightening should follow a definite sequence. One "round md round" and the other is "crisscross". Either should be satisfactory.
13. Inspect pipe flange for warping. If bolts are tightened against a warped flange, there is I danger of cracking the cast iron valve flange.
14. After all valves and flanges are joined and interconnected, subject it for a low pressure to check for leakage. Increase the pressure gradually.
15. If there are leaks at any joints, cut the Supply of water and repair it immediately.
16. Provide concrete trust blocks and anchors to prevent movement of fittings.
17. Let the concrete mixture dry and prepare the area for backfilling.

## **12.0 THRUST BLOCK AND ANCHOR**

Pipe thrust blocks shall be installed located on strategic locations in the pipe system as shown on plans and instructed by the engineer.

Pipe Trust Blocks - is a mass of concrete poured in place between the pipe fittings and undisturbed soil at the bottom or side of the pipe trench.

Pipe Thrust Anchors - is a mass of concrete with embedded steel strap rods to resist upward thrusts induced by pressure on pipes or fittings.

### **12.1 Installation for Thrust Blocks and Anchors shall Conform to the Standard Set by LWUA**

1. Non-structural concrete (2,000 psi) should be placed between the fitting and the undisturbed bearing soil.
2. The concrete should be kept behind the bell of the fitting it should not be allowed to run over against the pipe or into the joint.
3. The concrete should fill in completely around the fitting. The pipe or fitting should not be encased, as there should be allowance for slight movement due to temperature changes and pressure.
4. Thrust block are not needed at the welded flanged joints of steel pipes.

### **13.0 BACKFILLING AND COMPACTION**

1. Water, if present, must be removed first from the trench using a dewatering pump or other means before backfilling.
2. Backfill always follows pipe installation as closely as possible. This protects the pipe from falling sharp and big rocks, eliminates the possibility of the pipe getting lifted due to flooding of the open trench, and avoids the pipe shifting out of the line due to cave-ins.
3. All backfill materials for uPVC pipes should be done gently and thoroughly, Steel pipes shall be backfilled as shown on plans and as instructed by the engineer.
4. The first layer of the backfill must always be clean granular material such as sand. Suitable soil can be used if recommended by the engineer.
5. The pipe must be covered evenly for at least 150mm thick from the pipe's surface. Manually compact the sand firmly to avoid damage or movement of pipe for uPVC.
6. The succeeding layers of backfill must be selected soil materials of large and or sharp stones and lumps.
7. The remainder of the trench should be filled in layers, 100mm to 150mm thick, with each layer being carefully and thoroughly compacted before the next layer is placed.
8. Use a tamping bar or any other approved mechanical equipment during compaction.
9. If trenches are in the road right of way or where there will be a sidewalk, the compacted backfill must meet the compaction requirements of the agency concerned or DPWH.

### **14.0 SURFACE RESTORATION**

1. All damaged and disturbed area due to pipe laying activities must be restored to its original condition.
2. Damaged concrete/asphalt pavement restoration is strictly enforced upon the completion of the pipe laying and hydro testing activities.
3. All concrete pavement surfaces and all concrete base under an asphaltic mix surfaces to be restored shall be scored concrete cutting equipment into clean straight lines.

4. Clean the sides of the pavements removing foreign particles using clean tap water
5. The cases of damaged, adjacent pavements, the damaged area should be included in the surface restoration and inside the perimeter of the scored portion.
6. In the cases of damaged, removed or disturbed fences, post, street signs, surface structures, and other properties, whether through failure or deliberately to efficiently perform the repair works shall be replaced.
7. The prepared concrete mixture for the surface restoration should have a compressive strength of 3000 psi. A concrete mixture ratio of 1 part cement, 2 parts sand and 3 parts aggregate will produce a concrete mix of approximately 3000 psi.
8. The restored portion should have the same thickness or greater than the existing concrete/asphalt pavement.
9. When the concrete is slightly hardened, scrape it using a stick broom.
10. Secure the area using the barricades, warning devices and steel plates (if necessary) to protect the newly restored portion until the concrete reaches its maximum strength.

Barricades, warning devices and steel plates should be removed on the site three (3) to five (5) days, or as approved by the agency covering the area or DPWH.

## **15.0 PRESSURE AND LEAKAGE TESTING FOR UPVC**

1. Inspection before testing - Pipe section must be partially backfill 0.45 m over pipe, to secure from movement, leaving only the joints open for usual visual inspections. All pipe ends must be copped and restrained to prevent movement. Make provisions to relieve trapped air from high points and pipe ends.
2. Visual inspection of leakages - Prior to any testing, the pipe section must be cleaned by flushing with a minimum flushing velocity of 0.80 m/s(2.5 feet per second).
  - After filling apply a slight pressure of at least 20 psi and allow 48 hours for the line to settle and stabilize during the 48-hr period visually examine all exposed pipe joints, couplings, valves and fittings for possible leaks. Also during this period examine all thrust blocks especially at test ends for excessive movements due to thrust forces which developed.
3. Pressure and leakage testing/inspection - Refer to the applicable specification all procedures as given or follow the specifications below.

*"As per LWUA standards, the test shall consist of holding test pressure on each section of the line for a period of two (2) hours. The test pressure at the lowest point shall be 1.0 MPa (150 Psi) according to the class of pipe installed, Class 100 or Class 150. Pressure recorder or pressure logger shall also be provided at all ends of the section tested. The water necessary to maintain the pressure shall be measured using a meter or any other satisfactory means. The leakage shall be considered the amount of water entering the pipeline during the two (2) hr. test period"*

**Formula:** *AL (Allowable leakage) = 1.85 liters /mm (dia.) per  
[Length in km (day)]*

*"For all other types of pipes except cast iron or ductile pipe, the allowable leakage should not exceed 1.85 liters/mm of pipe diameter/km/24hrs"*

*"Must ensure that all newly installed closure pipes shall be tested and pass the leak test by subjecting the joints (of Closure pipes) to a pressure of 50 psi for the period of five minutes and visually checking for leakages"*

## **16.0 FLUSHING AND DISINFECTION**

1. Conduct flushing to make sure that the water main is clean before starting disinfection to remove any foreign materials that may interfere with the disinfection activity.
2. Flushing Should be done through a hydrant or blow-off.
3. Minimum flushing velocity is 0.8 r/s (2.5 &s) to attain proper flushing action, Take a record and include in the report on how much water must be used to flush different pipe sizes at residual pressure of 28 m (40 psi).
4. Introduce Chlorine Solution. Determine pipeline capacity to determine amount of chlorine needed.
5. A chlorine solution of not more than fifty milligrams per liter (50 mg/l) is pumped at the beginning of a valve section of pipeline until full. Determine chlorine solution with the aid of "Chlorine Residual Test Kit."
6. The preferred application point is usually at one end of the pipe section through a stop inserted on top of the laid pipe.
7. The high points of pipe section being disinfected should be properly vented.
8. At the opposite end of the pipe section, a Blow-off valve should be provided to bleed or drain water during the injection process.

### **16.1 Retention Period of Chlorine Solution**

1. The average retention or contact period for 50 mg/liter Chlorine solution is 24 hours.

2. All pipeline valves and appurtenances should be operated to ensure that they are also disinfected.
3. During the 24-hour contact period, chlorinated water should not be allowed to flow into the potable water distribution system.
4. After a contact period of 24 hours, samples should be taken along the entire length of the pipe line and tested for chlorine residual. Residual chlorine shall not be less than 25 mg/L; otherwise the treatment procedure shall be repeated until satisfactory results are obtained.
5. Never discharge highly chlorinated water to the surrounding area to avoid possible damage to properties and persons.

## 16.2 Draining and Final Flushing

1. Drain the Chlorine solution through the blow-off valve into a storm-sewer line.
2. Use clean water to flush the disinfected pipeline.
3. After flushing, the residual chlorine should be between 0.20 to 0.75 mg /l.

## 17.0 SUBMERSIBLE PUMP

### 17.1 General

The Contractor shall furnish and install submersible pump as shown on the drawings and as specified herein. The pump shall be of the low head high capacity type that should satisfy the operational requirements described herewith.

### 17.2 Operating Requirements

The pumps shall meet the following minimum operating requirements:

#### OPERATING CHARACTERISTICS

Number of units	2	unit
Service flow rate	190	m <sup>3</sup> /hour per unit
Service head	108	m
Power consumption at duty point	72.1	kW
Maximum power consumption	72.4	kW
Max. pump efficiency (Best efficiency point)	80.5	%
Rotation speed	3510	rpm

There shall no point within the operating range of the pump wherein the required kW exceeds the rated motor kW. In addition to the above requirements, the design point shall be located within the best efficiency range of the pump. Efficiency range shall be within the  $\pm 5\%$  of the best efficiency point (0.05 x BEP).

### 17.3 Construction Characteristics

#### CONSTRUCTION CHARACTERISTICS

Delivery diameter	G5
Maximum overall diameter	203 mm
Type of impeller	Mixed flow
Number of stages	5
Motor seal	Mechanical
Type of installation	Horizontal
Moment of inertia	22992 Kgm <sup>2</sup>

#### WEIGHTS

Pump Weight	83 Kg
Weight of Submersible Motor	235 Kg
Weight of Electric Pump	318 Kg

#### ELECTRIC MOTOR CHARACTERISTICS

Nominal Power	75 kW
Rated Frequency	60 Hz
Rated Voltage	460 V
Nominal Speed	3510 rpm
Rated Current	125.9 A
Number of Poles	2
Service Factor	1.15

#### PUMP MATERIALS

Diffuser Unit	Cast Iron
Suction Casing	Cast Iron
Impeller	Cast Iron
Pump Shaft	Stainless Steel
Coupling	Stainless Steel
Pump Shaft Bearing Bush	Stainless Steel/rubber
Valve Casing	Cast Iron
Conical Valve	Stainless Steel
Strainer	Stainless Steel
Wear Ring	Stainless Steel/rubber
Defender Corrosion Protection	must be indicated in product brochure
Cable Guard	Stainless Steel
Nut	Stainless Steel
Stud	Stainless Steel
Screw	Stainless Steel
Bolts and Nuts	Stainless Steel

#### MOTOR MATERIALS

Shaft	Stainless Steel
Sand Guard	Rubber
Rotor	Electrical Steel
Stator	Electrical Steel

Stator Shell	Stainless Steel
Winding	Green Wire
Lower Bracket	Cast Iron
Mechanical Seal	Silicon carbide/silicon carbide
Bearing	Bronze
Thrust-bearing	Stainless Steel/synthetic
Thrust-bearing foot slip	Cast Iron
Diaphragm	Rubber
Diaphragm Cover	Cast Iron
Shaft Sleeve	Chrome plated steel
Motor Bracket	Cast Iron
Bolts	Stainless Steel

- a. All equipment furnished and installed shall be brand new and non-obsolete (at most three years ex-stock), unused, and guaranteed from defects in materials, design and/or workmanship. Importation papers of ex-stock equipment shall be submitted. No equipment or material shall be delivered for installation on site prior to the return of acceptable shop drawings submitted by the Supplier in accordance with Clause F. Shop Drawings and Catalogue Data of the Technical Specifications. The Supplier shall submit together with the shop drawings, a certification of the availability of spare parts and service locally in case of system breakdown for a period of five (5) years.
- b. The in-line booster pump and motor shall be horizontally installed a steel shroud and submersible in nature. The equipment must have installed a DEFENDER smart device as a standard feature to protect the electric pump and motor from electrochemical corrosion and galvanic currents, passivating the steel so as to create a further safety barrier against corrosion.

The Bidder shall submit the Manufacturer's Standard Brochure indicating the DEFENDER Corrosion Protection System as a standard feature.

- c. The motor shall be of squirrel cage, submersible induction type, encapsulated and rewindable type. The motor shall be designed for continuous duty operation and shall have a minimum service factor of 1.15. The motor shall be water filled and should incorporate a mechanical seal to restrict foreign matter from entering the motor. The thrust bearings shall be of ample capacity to carry the weight of all rotating parts plus the hydraulic thrust and shall be an integral part of the driver. It shall be equipped with expansion diaphragm to compensate for filing water expansion/contraction due to temperature changes. It shall be fitted with a permanent non-corrosive nameplate on which all standard motor data shall be stamped or engraved in English/Metric.
- d. Manufacturer should have proven track record on the fabrication and manufacturing of Pumps and Motors for a minimum period of 25 years. The Manufacturer should likewise follow a Quality Management Assurance procedure audited by a reputable third-party institution such as ISO and other International organization on the place of manufacturer.

The Bidder shall provide Manufacturer's Certificate of Registration to Quality Management System – ISO 9001:2015 to ensure compliance. Such document should be authenticated by Philippine Consul or the Office of the Local Chamber of Commerce within the manufacture's country of origin.

## **17.4 Electrical Components**

### **WIRES AND CABLES**

- a. All wire and cables shall be stranded copper, annealed, soft drawn, of 98% conductivity, insulated for 600 V working voltage, and with type "THW" or "THWN" insulation unless otherwise noted on the Drawings. Insulation shall bare the manufacturer's name and trademarked, type, volt-ampere rating and size of the conductor.
- b. Cable for submersible pump operation shall be oil and water resistant. Cable shall have a minimum of two insulation jackets. The inner jacket shall be of rubber or elasticized rubber material while the outer jacket shall be of neoprene, PE or PB material. The outer jacket shall be bare the manufacturers name and trademark, insulation type and application, volt and ampere rating and size of the conductor. Cable shall be uncut and un-spliced from the motor pigtail to the junction shop or terminal for the motor starter. It shall be mixed in placed with straps of acceptable materials for such application. Cable termination to motor pigtail shall be by means of heavy duty splicing kit or its equivalent. Splicing paste shall have a minimum expiration period of one (1) year.

### **CIRCUIT BREAKERS**

- a. Circuit breakers shall be molded case type, manually operated, shall have a trip free operating mechanism of the quick-make, quick-break type, shall have an earth leakage tripping/ground fault protective device unless otherwise specified. The circuit breaker shall be of automatic trip type with combination thermal and instantaneous magnetic trip units. Circuit breakers in combination with motor starters shall be of the industrial type with instantaneous magnetic trip, earth leakage/ground fault protective device and provided with standard operating handle mounted on the panel.

The thermal-magnetic time delayed over current protection and instantaneous short circuit protection shall operate a common trip bar which will open all poles in case of overload or short circuit current in any one pole.

The Earth Leakage Tripping Device/Ground Fault Sensor shall operate and interrupt the circuit if the leakage current exceeds its rated sensitivity. Each leakage tripping device shall eliminate erroneous operations due to rush current produced at the time of starting the motor.



Circuit breaker shall be trip indicating, with tripped position of breaker handle midway between “ON” and “OFF” positions.

### **PANEL METERS**

- a. Ammeter – the unit shall be quadratic panel type with slide-in-dial and shall have minimum dimension of 70mm x 70mm. Scale range shall be required for the pumping station load current at system voltage adopted; with an accuracy of plus or minus 2% of full scale or better. The unit shall be provided with a 3-position switch connected to phase R, S, and T, and three (3) current transformers of suitable rating each phase.
- b. Voltmeter – the unit shall be quadratic panel type with slide-in-dial and shall have minimum dimension of 70mm x 70mm. scale ranges shall be required for the system voltage adopted at 60 hertz, with an accuracy of plus or minus 2% of full scale or better. The unit shall be provided with a 3-position selector switch connected across RS, RT, and ST.

### **HANDLED OPERATING MECHANISM**

Operating handle for the main circuit breaker shall be designed with the operating handle fitted with the panel board of the control equipment. IT shall be used for operating the door and affecting the “ON\_TRIP\_OFF” operational of the breaker. It shall be designed such that the door cannot be opened when the breaker is at the “ON” position shall be provide with a door locking mechanism. A release screw shall be provided to permit the interlock to be canceled if it is necessary to open the door with breaker at the “ON” position. Dimension shall be as recommended by the Contractor.

## **18.0 SHOP DRAWINGS AND CATALOG DATA**

When required, the Contractor shall submit for approval seven (7) copies of the shop drawings of materials and equipment it intends to supply, as indicated in the drawings and specifications.

Shop drawings shall provide sufficient information to evaluate the suitability and compliance of the proposed equipment and control components with the plans and specifications.

Catalog data shall also be submitted to supplement the shop drawings. Catalog cuts, bulletins, brochures or the like, or photocopies of applicable pages thereof shall be submitted where drawings for certain items are not required to be submitted.

## **19.0 AS BUILT DRAWINGS**

Before the acceptance of the work, Contractor shall furnish at his own expense and submit to Norzagaray Water District Engineer as built drawings indicating in all

details the actual construction or as built conditions of the work in this contract, As built plans shall be, Two (2) sets duly signed and the soft-copy in CAD file.

## *Section VII. Drawings*

<b>Item No.</b>	<b>Title</b>	<b>Sheet No.</b>
1.	General Notes, Legend, Keyplan, Drawing Index & Vicinity Map	1
2.	Plan A, Profile A, Vicinity Map A & Road Section A	2
3.	Plan B, Profile B, Vicinity Map B & Road Section B	3
4.	Plan C, Profile C, Vicinity Map C & Road Section C	4
5.	Plan D, Profile D, Vicinity Map D & Road Section D	5
6.	Plan E, Profile E, Vicinity Map E & Road Section E	6
7.	Plan F, Profile F, Vicinity Map F & Road Section F	7
8.	Plan G, Profile G, Vicinity Map G & Road Section G	8
9.	Plan H, Profile H, Vicinity Map H & Road Section H	9
10.	Plan I, Profile I, Vicinity Map I & Road Section I	10
11.	Plan J, Profile J, Vicinity Map J & Road Section J	11
12.	Pipelaying Data Per Sheet & Trench Detail	12
13.	Air Relief Valve, Butterfly Valve, Gate Valve	13
14.	Booster Pump Vault (Structural Detail) Interconnection	14-16
15.	Valve Vault (Structural Detail) Interconnection	17
16.	Booster Pump Vault (Structural Detail) Interconnection	18-20
17.	Valve Vault (Structural Detail) Interconnection	21-22
18.	Motor Control Center	23-25

## *Section VIII. Bill of Quantities*

## *Bill of Quantities*

WORK ITEM	UNIT	QTY	UNIT PRICE (PhP)	TOTAL PRICE (PhP)
<p><b>IV. UNIT BID ITEMS FOR PIPELINES AND RELATED CIVIL WORKS</b></p> <p>NOTE: Quantities Estimated are for the purposes of comparing bids. Payment will be based on actual quantities furnished, installed or constructed.</p>				
<p><b>IA. PIPELINES</b> - Furnish and install pipes complete including joints, fittings, and warning/detection tapes, perform excavation of any type of soil excluding rock/boulders/hard limestone with pipe cover of not less than 1.0meters, measured to existing ground surface, sump pumping, pipe supports, thrust blocks, backfilling using suitable materials from the trench, disposal of surplus materials where directed, compaction and hydro testing in accordance with Specifications and Drawings. The cost shall include provision and maintaining enough safety barricades, bollards, warning signs/lights and steel plates to cover open trenches when required and in accordance with the Plans and Technical Specifications.</p> <p>Note 1: Quantity = length in meters, <b>excluding</b> length of valves and assemblies under Items B</p> <p>Note 2: Thrust block is not required for welded steel pipes.</p> <p>Note3: If below-ground laying is not suitable to actual field conditions, above-ground pipe installation shall be used.</p> <p>Note 4: All other interconnections not included in Lump Sum Bid Items for Interconnection shall be included under unit bid items for pipelines.</p>				
<p><b>IA.1 Transmission/Distribution Pipelines - uPVC Pipes Series 8 (class 150 or 150 psi normal working pressure) machine-installed metal reinforced integrated epdm gasket seal.</b></p>				
4.	400 mm (16") diameter uPVC pipes	LM	3,252	
<p><b>IA.2 Disinfect all proposed pipelines as specified</b></p>				
1.	400 mm (16") diameter uPVC pipes	LM	3,252	
<p><b>ST-IA Sub-total for Pipelines</b></p>				
<p><b>Signature of Bidder:</b> _____ <b>Date:</b> _____</p>				

WORK ITEM		UNIT	QTY	UNIT PRICE (PhP)	TOTAL PRICE (PhP)
<b>IB. VALVES</b> – Furnish and install gate or butterfly or pressure reducing valves complete with fittings on proposed pipelines with valve box cover, concrete pads and perform all necessary earthworks, backfill, compaction and disposal of excess materials in accordance with the Plans & Specifications. <i>Note 1: Quantity = number of valves</i>					
<b>IB.1 Gate or Butterfly Valves with flanges or combination flanges</b> (Refer to details as shown in the Drawings)					
1.	400 mm Butterfly valves	set	2		
2.	250 mm Gate valves	set	1		
<b>IB.2 Air Release Valve with flanges</b>					
1.	75 mm	Set	7		
<b>IB.3 Blow-off Valve</b>					
1.	150 mm	Set	6		
<b>ST-IB Sub Total for Gate Valves, Air Release Valves, and Blow-off Valves</b>					
<b>IC. BRIDGE CROSSING</b> – Furnish all materials, labor, tools, and equipment necessary to construct all pipe crossings of the proposed pipelines complete including installation of pipes, fittings, valves (if needed), thrust blocks, abutments, piers, coffering, and all other works including testing and disinfecting as specified and shown on the Drawings. Refer to the Drawings for limit of Lump Sum Bid.					
<b>IC.1</b>	Bridge Crossing (400 mm dia. Steel Pipe)	LS	1		
<b>ST-IC Sub Total for Bridge Crossing</b>					
<b>Signature of Bidder:</b>			<b>Date:</b>		

WORK ITEM		UNIT	QTY	UNIT PRICE (PhP)	TOTAL PRICE (PhP)
<p><b>ID. DEMOLITION AND RESTORATION</b> - Furnish labor tools and equipment necessary to demolish pavement (roads, sidewalk and driveways) and construct and/or restore pavement and/or structures including the hauling and disposal of discard materials to approved dumpsite acceptable to the Engineer. The cost of cutting/sawing the pavement as well as supply and preparation of the base course when required shall be included in the unit bid price.</p> <p>Note: Payment will be based on the volume of concrete pavement restored regardless of the thickness of pavement(s) demolished. Computation of volume of restoration shall also consider the width in excess of the maximum allowable trench width. Thickness of base course and or sub-base shall not be included in the measurement.</p>					
<b>ID.1</b>	Demolition	m <sup>3</sup>	38		
<b>ID.2</b>	Restoration	m <sup>3</sup>	38		
<b>ST-ID Sub Total for Demolition and Restoration</b>					
<b>Signature of Bidder:</b>		<b>Date:</b>			



<b>SUMMARY FOR PART I - PRICES FOR PIPELINES AND RELATED CIVIL WORKS</b>			
			<b>TOTAL PRICE (Pesos)</b>
<b>IA</b>	<b>PIPELINES</b>		
<b>IB</b>	<b>VALVES</b>		
<b>IC</b>	<b>BRIDGE CROSSING</b>		
<b>ID</b>	<b>DEMOLITION AND RESTORATION</b>		
	<b>TOTAL PART I CARRIED FORWARD TO BID PRICE SUMMARY</b>		
<p><b>Signature of Bidder:</b> _____ <b>Date:</b> _____</p>			

<b>Pay Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Qty.</b>	<b>Unit Price (Pesos)</b>	<b>Total Amount (Pesos)</b>
<b>PART II – LUMP SUM BID ITEMS FOR ELECTRO-MECHANICAL WORKS</b>					
<b>PUMPING FACILITIES – Furnish, install, test and commission electro-mechanical equipment such as submersible pump, controls, electric motor set and accessories and all appurtenances as specified and shown on the drawings.</b>					
Note: Quantities estimated are for the purpose of comparing bids. Payments will be based on actual quantities furnished, installed or constructed.					
<b>IIA</b>	<b>Submersible Pump Set – 100 Hp, High Efficiency</b>	<b>LS</b>	<b>2</b>		
<b>ST-IIA Sub Total for Pumping Facilities</b>					

<b>SUMMARY FOR PART II – LUMP SUM BID PRICE ITEMS FOR ELECTRO-MECHANICAL WORKS</b>			
			<b>TOTAL PRICE (Pesos)</b>
<b>IIA</b>	<b>PUMPING FACILITIES</b>		
	<b>TOTAL PART III CARRIED FORWARD TO BID PRICE SUMMARY</b>		
<b>Signature of Bidder:</b>		<b>Date:</b>	

WORK ITEM		QTY	UNIT or LUMP SUM	TOTAL PRICE (PhP)
<p><b>PART III. SPECIAL ITEMS</b>– The bidder shall complete the following forms by inserting the quantity and price amounts (in figures) for each in the space provided. The amount shall represent the true breakdown of the lump sum bid price indicated below.</p> <p><b>Note:</b> Bid cost for this item shall be for the period of <b>fourteen (14) to accommodate any suspension period/time extension and/or contract closing period.</b></p>				
<p><b>IIIA GENERAL REQUIREMENTS - CONTRACTOR’S MOBILIZATION, DEMOBILIZATION, PROJECT ORGANIZATION, TEMPORARY FACILITIES, PERMITS, FEE, GUARANTEES, BONDS, ETC.</b></p>				
IIIA.1	Mobilization and Demobilization	1	LS	
IIIA.2	Temporary Site Facilities Project Organization and Office Maintenance	14	months	
IIIA.3	Permits, Fees, Guarantees, Bonds, Insurances, etc.	1	LS	
IIIA.4	Occupational Safety and Health Program	1	LS	
IIIA.5	Environmental and Social Measures	1	LS	
<p><b>ST-IIIA Sub Total for General Requirements, Contractor’s Temporary Site Facilities, Project Organization, Resource Movement, Etc.</b></p>				
<b>IIIB</b>	<b>PROJECT ENGINEER’S OFFICE INCLUDING OFFICE SUPPLIES AND EQUIPMENT</b>			
IIIB.1	Project Engineer’s Office	14	months	
IIIB.2	Office Supplies and Equipment (see Appendix A)	1	LS	
<p><b>ST-IIIB Sub Total for Project Engineer’s Office, Office Supplies and Equipment</b></p>				
<p><b>Signature of Bidder:</b></p>		<p><b>Date:</b></p>		

WORK ITEM		QTY	UNIT or LUMP SUM	TOTAL PRICE (PhP)
<b>IIIC PROJECT BILLBOARDS: PROVIDE AND INSTALL FIVE (5) PROJECT SIGNS AND ONE (1) COA SIGN BOARD</b>				
IIIC.1	Project Signs	5 sets		
IIIC.2	COA Sign Board	1 set		
<b>ST-IIIC Sub Total for Project Billboards: Provide and Install Five (5) Project Signs And One (1) COA Sign Board</b>				
<b>Signature of Bidder:</b>		<b>Date:</b>		

SUMMARY FOR PART III – SPECIAL ITEMS			
			TOTAL PRICE (Pesos)
<b>IIIA</b>	<b>GENERAL REQUIREMENTS, CONTRACTOR’S TEMPORARY SITE FACILITIES, PROJECT ORGANIZATION, RESOURCE MOVEMENT, , ETC.</b>		
<b>IIIB</b>	<b>PROJECT ENGINEER’S OFFICE, ETC.</b>		
<b>IIIC</b>	<b>PROJECT BILLBOARDS:  PROVIDE AND INSTALL FIVE (5) PROJECT SIGNS AND ONE (1) COA SIGN BOARD</b>		
	<b>TOTAL PART III CARRIED FORWARD TO BID PRICE SUMMARY</b>		
<b>Signature of Bidder:</b>		<b>Date:</b>	

### TOTAL BID PRICE SUMMARY

	WORK ITEM	TOTAL PRICE (PHP)
<b>PART I</b>	<b>PIPELINES AND RELATED CIVIL WORKS</b>	
<b>PART II</b>	<b>ELECTRO-MECHANICAL WORKS</b>	
<b>PART III</b>	<b>SPECIAL ITEMS</b>	
<b>IV. TOTAL OF PART I TO III</b>		
<b>TOTAL BID PRICE (I + III)</b>		
<b>In words:</b>		
_____		
_____		
_____ (_____)		

**Signature of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

### BREAKDOWN OF PRICES

The Bidder shall completely fill up the Bidder's Breakdown of the Unit Price and Lump Sum Bids herein below provided by inserting the amount in figures for each item in the space provided. The Breakdown shall be submitted together with and shall form part of the Bid Form. The amounts shall represent a true breakdown of the bid prices of the Unit Price and Lump Sum Bids shown in the Bid Form in Philippine Peso. These amounts will be used in preparing monthly estimates. All breakdown should be balanced and consistent with the bid amount in Section VIII – Bill of Quantities. An UNBALANCED BREAKDOWN WILL NOT BE ACCEPTABLE. The total amount indicated in the form below for each Unit Price and Lump Sum Bid Items must equal the bid price shown in the Bid Form.

#### UNIT PRICE BID ITEMS

#### L. PIPELINES AND RELATED CIVIL WORKS

##### IA. PIPELINES

The bidder shall complete the following form by inserting the price amounts (in figures) for supply and installation of pipes up to hydrotesting. Disinfection of pipes shall be paid as a separate pay item.

Bid Item	Unit Price (per LM) Materials			Unit Price Installation (per LM)			Total Unit Price
	a/ Pipes	a/ Fittings	Others	Excavation	Laying/ Jointing	Backfilling, Compaction, Hydrotesting	
<b>Transmission/Distribution Line (uPVC Pipes with Integrated Fixed Seal, Series 8)</b>							
400mm Ø							
<b>Transmission/Distribution Pipelines</b>							
400mm Ø							

Note: Others include detection tapes, thrust blocks, warning lights and steel plates, etc. Laying cost includes local transportation cost to the site. For steel or metal pipes, no detection tapes are required.

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

The bidder shall complete the following form by inserting the price amounts (in figures) for the supply of materials and installation (**per unit cost**).

### IB.1 GATE/BUTTERFLY VALVES

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE SUPPLY a/ (3)	UNIT PRICE INSTALLATION (4)	BID ITEM TOTAL UNIT PRICE (5)
400 mm Ø	2pcs			
250mm Ø	1 pc			

Note : a/ include fittings & other expenses such as taxes, clearance and handling up to the construction site.

### IB.2 AIR RELEASE FLANGES

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE SUPPLY a/ (3)	UNIT PRICE INSTALLATION (4)	BID ITEM TOTAL UNIT PRICE (5)
75 mm Ø	7pcs			

Note : a/ include fittings & other expenses such as taxes, clearance and handling up to the construction site.

### IB.3 BLOW-OFF VALVES

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE SUPPLY a/ (3)	UNIT PRICE INSTALLATION (4)	BID ITEM TOTAL UNIT PRICE (5)
150 mm Ø	6pcs			

Note : a/ include fittings & other expenses such as taxes, clearance and handling up to the construction site.

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**IC. BRIDGE CROSSING**

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE SUPPLY a/ (3)	UNIT PRICE INSTALLATION (4)	BID ITEM TOTAL UNIT PRICE (5)
400 mm Ø Steel pipe	LS			

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_



**ID. DEMOLITION AND RESTORATION****ID.1 PAVEMENT DEMOLITION**

BID ITEM (1)	QTY (Nos.) (2)	UNIT PRICE LABOR (3)	UNIT PRICE EQUIPMENT (4)	BID ITEM TOTAL UNIT PRICE (5)
Pavement Demolition				
Restoration				

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## II. ELECTRO-MECHANICAL EQUIPMENT

For the Pumping Facilities, the bidder shall complete the following form by inserting the quantity and price amount (in figures) for each item, in the space provided. The amount shall represent the true breakdown of the bid price for lump sum shown under Part II of the bid form. Items not shown in the breakdown hereunder, but shown on the drawings shall be specified and added by the bidder, items not applicable shall be deleted.

Description	Quantity	Unit Installed Cost	Total Amount
Submersible Pump with Cathodic Protection, 100HP	2 units		
Valves and Accessories <ol style="list-style-type: none"> <li>1. Cooling Shroud 0.40m Ø X 2.75M long with Stabilizer (2 units)</li> <li>2. 200mm Ø Butterfly Valve (4 units)</li> <li>3. 200mm Ø Rubber Coupling (4 units)</li> <li>4. 100mm Ø Pressure Gauge (2 units)</li> <li>5. Pressure Transducer (2 units)</li> <li>6. Submersible Cable (20m)</li> <li>7. 250mm Ø Steel Pipe (1 pc)</li> <li>8. 400mm Ø x 250mm Ø Tee (2 pcs)</li> <li>9. 250mm Ø Butterfly Valve (2 pcs)</li> <li>10. 250mm Ø x 200mm Ø Reducer (2 pcs)</li> <li>11. 25 mm Ø Air Release Valve (1 pc)</li> </ol>	1 lot		
Motor Control, VFD, soft starter Variable Frequency Drive 100HP 460Vac 3-Phase, 60Hz	1 lot		
Electrical  12. Control Panel Component <ol style="list-style-type: none"> <li>4.1 Feeder Line (100mm<sup>2</sup>) Estimates 30 mts (1 set)</li> <li>4.2 Service Entrance Main Breaker 600A (1 set)</li> <li>4.3 Manual Transfer Switch 500A (1 set)</li> <li>4.4 Junction Box (cable Tray) (1 lot)</li> <li>4.5 Power Cable (60mm<sup>2</sup>) Estimate 40 mts (2 sets)</li> <li>4.6 Conduits (PVC 90mm) Estimate 30 mts (2 sets)</li> </ol>	1 lot		

<p>4.7 Conduits Accessories (elbows, adaptor, solvent) (2 sets)                  4.8 Conduits (FLT 90mm) (2 sets)                  4.9 Conduits Accessories (FLT adaptor) (2 sets)</p> <p><b>13. Control Panel Component</b></p> <p>2.1 Control Panel (1200L x 1000W x 500W) (1 lot)                  Includes Variable Frequency Drive 100HP 460Vac 3-Phase, 60Hz. Complete with circuit breaker, magnetic contactor with start/stop push buttons, pilot lights, liquid level control relay with electrodes, overload relay, under/over voltage relay, lightning arrester, with phase failure and phase imbalance relay, ammeter, voltmeter, and HOA selector switch mounted in enclosure</p> <p>2.2 Control Panel (1000L x 1000W x 400W) (1 lot)                  Includes Softstarter 100HP 460Vac 3-Phase, 60Hz. Complete with circuit breaker, magnetic contactor with start/stop push buttons, pilot lights, liquid level control relay with electrodes, overload relay, under/over voltage relay, lightning arrester, with phase failure and phase imbalance relay, ammeter, voltmeter, and HOA selector switch mounted in enclosure</p>			
<p>Concrete Vault</p>	<p>1 lot</p>		
<p><b>Signature and Official Stamp of Bidder:</b> _____ <b>Date:</b> _____</p>			

**III. SPECIAL ITEMS****IIIA Contractor’s Mobilization, Demobilization, Project Organization, Temporary Facilities, Permits, Fee, Guarantees, Bonds, etc.**

No.	Description	Quantity/ Unit	Unit Cost	Total Amount
1.	Mobilization/Demobilization Movement	LS		
2.	Temporary Site Facilities, including bunk houses, storage, utilities and maintenance	14 mos		
3.	Project Organization, Equipment	LS		
4.	Office Equipment, Supplies, Furnitures, Consumables, etc.	LS		
5.	Permits, Fees, Bonds, Guarantees, Warrantees and Insurances	LS		
6.	Occupational Safety and Health Program	LS		
7.	Environmental and Social Measures	LS		
<b>IIIA</b>	<b>SUB-TOTAL IIIA</b>			

**IIIB Provide and Maintain Project Engineer’s Office**

No.	Description	Quantity/ Unit	Unit Cost	Total Amount
1.	Provide and Maintain Project Engineer’s Office. All monthly utility bills, cable, internet connection/wi-fi shall be included in this bid item.	14 mos		
2.	Provide furniture, computers, office equipment, supplies, printer ink, consumables, etc. for the duration of the contract. See Appendix A for specific requirements.	LS		
<b>IIIB</b>	<b>SUB-TOTAL IIIB</b>			
<b>Signature and Official Stamp of Bidder:</b> _____ <b>Date:</b> _____				

**III.C Project Billboards: Provide, Install, and Maintain Project and COA Sign Boards**

	Description	Quantity/ Unit	Unit Installed Cost	Total Amount
1.	Project Signs	5 sets		
2.	COA Sign Board	1 set		
<b>III.C</b>	<b>SUB-TOTAL FOR III.C</b>			

**APPENDIX A**

Supply the following office furniture, equipment, computers and office supplies.

Item	Description	Specification	Qty	Unit
1	Desktop computer set w/ computer table and chair	Latest Model, core i9 1 TB GB Hard Drive (min.), 8 GB RAM, AVR, OS – Windows 10 w/ latest Microsoft Office Software, AutoCad, latest anti-virus and Wi-fi ready as approved and accepted by the Engineer	1	set
2	Printer	Three-in-one, minimum (printer, copier & scanner) latest model as approved/accepted by the Engineer.	1	unit
3	Uninterrupted Power Supply (UPS)	Latest model as approved by the Engineer	1	unit
4	Laptop	Latest Model, 1 TeraByte Hard Drive, 8 GB RAM, OS – Windows 10 with latest Microsoft Office Software, AutoCad, latest anti-virus and Wi-fi ready as approved and accepted by the Engineer	1	unit

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

5	Flash Drive/USB	64 GB Capacity	2	pcs
6	Steel Filing Cabinet	Four (4) Drawers	1	pc
7	Office Table	Executive Table as approved by the Engineer	3	pcs
8	Office Chairs	Heavy duty as approved by the Engineer	3	pcs
9	Conference Table and Chairs	8-seater	1	set
10	Refrigerator	6 cu.ft. (min.)	1	unit
11	Aircon	1 Hp capacity (min)	2	units
12	Water Dispenser	Standard (hot and cold)	1	unit
13	Stand Fan	Heavy Duty (adjustable)	2	units
14	Gas Stove w/ Gas Tank	2 Burner	1	set
14	Beds with complete beddings, pillows and blankets	Semi double bed as approved by the Engineer	3	sets
13	Kitchen wares	Complete set as approved by the Engineer	1	lot

The Field Engineer's Office shall be 60 sq.m. (minimum) floor area with living room (will serve as office space), two (2) bedrooms, bathroom and kitchen. All utilities, such as rental, water, power, telephone and internet connection among others shall be borne by the Contractor and to be included in its Bid.

Office Consumables to be supplied by the Contractor for the duration of the Contract:

8. Bond Papers (A4, long and short sizes)
9. Calculators (2 pcs)
10. Ball Pens (black, blue and red)
11. Pencil
12. Folders and Brown Envelopes
13. Printer Ink (black and color)
14. Other Office Consumables, as required by the Engineer

**Signature and Official Stamp of Bidder:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## *Section IX. Bidding Forms*

## TABLE OF CONTENTS

Bid Form.....	9-2
Form of Contract Agreement.....	9-4
Omnibus Sworn Statement .....	9-6
Bid Securing Declaration .....	9-9
List of all Ongoing Government and Private Construction Contracts including awarded but not yet started .....	9-11
Statement of Single Largest Completed Government and Private Construction Contract which is similar in nature .....	9-12
Statement of Availability of Key Personnel and Equipment .....	9-13
Credit Line Certificate.....	9-14
Contractors Profile .....	9-15
Construction Schedule and S-Curve .....	9-17
Manpower Utilization Schedule .....	9-18
Outline Narrative Description of Construction Methods .....	9-19
Bio-data of Key Personnel.....	9-20
Qualification of Key Personnel to be Assigned to the Contract.....	9-21
List of Equipment, Owned or Leased and/or under Purchase Agreements, Pledged to the Proposed Contract .....	9-22
Equipment Utilization Schedule .....	9-23
Affidavit of Site Inspection .....	9-24
Cash Flow by Quarter and Payment Schedule .....	9-25
After Sales Services .....	9-26
Materials and Equipment Details.....	9-27
Performance Security.....	9-29



## Bid Form

---

Date: \_\_\_\_\_

IFB<sup>2</sup> N<sup>o</sup>: WDDSP-NorWD-OCB-CW07a

To: NORZAGARAY WATER DISTRICT  
Address: 1639 Pedro dela Merced Street  
Barangay Poblacion, Norzagaray  
Bulacan

We, the undersigned, declare that:

- (a) We have examined and have no reservation to the Bidding Documents, including Addenda, for the Contract – Norzagaray Water Supply System Improvement Project;
- (b) We offer to execute the Works for this Contract in accordance with the Bid and Bid Data Sheet, General and Special Conditions of Contract accompanying this Bid;

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

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

- (c) Our Bid shall be valid for a period of one hundred twenty (120) calendar days from the date fixed for the Bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (d) If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract;
- (e) Our firm, including any subcontractors or suppliers for any part of the Contract, have nationalities from the following eligible countries: *[insert information]*;
- (f) We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;
- (g) Our firm, its affiliates or subsidiaries, including any subcontractors or suppliers for any part of the Contract, has not been declared ineligible by the Funding Source;
- (h) We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and

---

<sup>2</sup> If ADB, JICA and WB funded projects, use IFB.

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

Name: \_\_\_\_\_

In the capacity of: \_\_\_\_\_

Signed: \_\_\_\_\_

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

Date: \_\_\_\_\_

## Form of Contract Agreement

---

THIS AGREEMENT, made this *[insert date]* day of *[insert month]*, *[insert year]* between Norzagaray Water District, 1639 Pedro dela Merced Street, Barangay Poblacion Norzagaray, Bulacan (hereinafter called the “Entity”) and *[name and address of Contractor]* (hereinafter called the “Contractor”).

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

### NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

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

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

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

Signed, sealed, delivered by \_\_\_\_\_ the \_\_\_\_\_ (for the Entity)

Signed, sealed, delivered by \_\_\_\_\_ the \_\_\_\_\_ (for the Contractor).

Binding Signature of Procuring Entity

\_\_\_\_\_

Binding Signature of Contractor

\_\_\_\_\_

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

## Omnibus Sworn Statement

---

REPUBLIC OF THE PHILIPPINES )  
CITY/MUNICIPALITY OF \_\_\_\_\_ ) S.S.

### AFFIDAVIT

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

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

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

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

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

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

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

3. *[Name of Bidder]* is not “blacklisted” or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board;
4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
5. *[Name of Bidder]* is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

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

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

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

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

7. [Name of Bidder] complies with existing labor laws and standards; and
8. [Name of Bidder] is aware of and has undertaken the following responsibilities as a Bidder:
- a) Carefully examine all of the Bidding Documents;
  - b) Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract;
  - c) Made an estimate of the facilities available and needed for the contract to be bid, if any; and
  - d) Inquire or secure Supplemental/Bid Bulletin(s) issued for the [Name of the Project].
9. [Name of Bidder] did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_ day of \_\_\_, 20\_\_ at \_\_\_\_\_, Philippines.

\_\_\_\_\_  
Bidder's Representative/Authorized Signatory

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

Witness my hand and seal this \_\_\_\_ day of *[month]* *[year]*.

**NAME OF NOTARY PUBLIC**

Serial No. of Commission \_\_\_\_\_

Notary Public for \_\_\_\_\_ until \_\_\_\_\_

Roll of Attorneys No. \_\_\_\_\_

PTR No. \_\_\_\_\_ *[date issued]*, *[place issued]*

IBP No. \_\_\_\_\_ *[date issued]*, *[place issued]*

Doc. No. \_\_\_\_\_

Page No. \_\_\_\_\_

Book No. \_\_\_\_\_

Series of \_\_\_\_\_

## Bid-Securing Declaration

**(REPUBLIC OF THE PHILIPPINES)**

**CITY OF \_\_\_\_\_ ) S.S.**

**X-----X**

**Invitation to Bid** *[Insert reference number]*

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

I/We, the undersigned, declare that:

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



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

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

Affiant

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

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

**NAME OF NOTARY PUBLIC**

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

**NOT APPLICABLE**



**NORZAGARAY WATER DISTRICT**

Name of the Contract:

Location of the Contract:

**Statement Of Single Largest Completed Government And Private Construction Contract Which Are Similar In Nature**

Business Name: \_\_\_\_\_

Business Address: \_\_\_\_\_

Name of Contract	1. Owner Name 2. Address 3. Telephone Nos.	Nature of Work	Contractors Role  Description	%	1. Amount at Award 2. Amount at Completion 3. Duration	1.Date Awarded 2. Date of Effectivity 3. Date Completed
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Government

Private

Note: This statement shall be supported with:

1. Contract
2. CPES Rating Sheets and/or Certificate of Completion
3. Certificate of Acceptance

Submitted by: \_\_\_\_\_

Printed Name and Signature

Designation: \_\_\_\_\_

Date: \_\_\_\_\_

## NORZAGARAY WATER DISTRICT

Name of the Contract:

Location of the Contract:

## Statement of Availability of Key Personnel and Equipment

(Date of Issuance)Name of the Head of the Procuring EntityPosition of the Head of the Procuring Entity(Name of Procuring Entity)(Address of Procuring Entity)

Attention : The Chairman  
Bids and Awards Committee

Dear Sir / Madame:

In compliance with the requirements of the (Name of the Procuring Entity) BAC for the bidding of the (Name of the Contract), we certify that (Name of the Bidder) has in its employ key personnel, such as project managers, project engineers, materials engineers and foremen, who may be engaged for the construction of the said contract.

Further, we likewise certify the availability of equipment that (Name of the Bidder) owns, has under lease, and/or has under purchase agreements, that may be used for the construction contracts.

Very truly yours,

(Name of Representative)(Position)(Name of Bidder)

NORZAGARAY WATER DISTRICT

Name of the Contract :  
Location of the Contract :

**CREDIT LINE CERTIFICATE**

Date: \_\_\_\_\_

Name of the Head of the Procuring Entity  
Name of the Procuring Entity  
Address of the Procuring Entity

CONTRACT NAME : \_\_\_\_\_  
COMPANY/FIRM : \_\_\_\_\_  
ADDRESS : \_\_\_\_\_  
BANK/FINANCING INSTITUTION : \_\_\_\_\_  
ADDRESS : \_\_\_\_\_  
AMOUNT : \_\_\_\_\_

This is to certify that the above Bank/Financing Institution with business address indicated above, commits to provide the Contractor, if awarded the above-mentioned Contract, a credit line in the amount specified above which shall be exclusively used to finance the performance of the above-mentioned Contract, subject to our terms, conditions and requirements.

The credit line shall be available within fifteen (15) calendar days after receipt by the Contractor of the Notice of Award and such line of credit shall be maintained until the project is completed by the Contractor.

This Certification is being issued in favor of said Contractor in connection with the bidding requirement of (Name of the Procuring Entity) for the above-mentioned Contract. We are aware that any false statements issued by us make us liable for perjury.

Name and Signature of Authorized  
Financing Institution Officer : \_\_\_\_\_  
Official Designation : \_\_\_\_\_

Concurred By:

Name & Signature of Contractor's

NORZAGARAY WATER DISTRICT

Name of the Contract :  
 Location of the Contract ;

**CONTRACTOR'S PROFILE****Date:****Name of Firm/Company:****Contractor ID:**General Information**Address:****Telephone Number:****Fax Number:****E-mail Address:****Cable Address:****Telex Number:**Legal AspectPCAB LicenseInformation**Type of Firm:****Head Office Location:****License First Issue****Date:****License Number:****Validity Period:** From To**Principal Classification:****Category:****Other Classifications:****Registration Date:****Registration Number:****Validity Period:** From ToTax Account No.Foreign Contractor**Nationality:****Philippine Address:****Telephone Number:****Fax Number:****E-mail Address:****Cable Address:****Telex Number:****Percent of Filipino Ownership:**Person Managing Affairs of the Firm**Name:****Designation:****Telephone Number:**Authorized Liaison Officer**Name:****Designation:****Telephone Number:**Authorized Liaison Officer**Name:****Designation:****Telephone Number:**

**Projects**

**Kinds of Projects**

**Respective Size Ranges**

Building and Industrial Plant  
 Dam, Reservoir and Tunneling  
 Irrigation and Flood Control  
 Park-Playground or Recreational Work  
 Port, Harbor and Offshore Engineering  
 Road, Highway Pavement Railways, Airport, Horizontal Structures, Bridges  
 Sewerage and Sewage System  
 Water Supply  
 Water Treatment Plant and System

**Financial**

**Aspect**

<b>Record Year</b>	<b>Total Assets</b>	<b>Current Assets</b>	<b>Total Liabilities</b>	<b>Current Liabilities</b>	<b>Total Present Net Worth</b>	<b>Current Net Worth</b>
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**Completed Projects**

<b>Contract ID</b>	<b>Name of Contract</b>	<b>Owner</b>	<b>Participation Percentage</b>	<b>Contract Date Started</b>	<b>Contract Date Completed</b>	<b>Major Categories of Work</b>	<b>Dimension</b>	<b>Total As Built Cost Per Major Work Category</b>
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**Ongoing Projects**

<b>Contract ID</b>	<b>Name of Contract</b>	<b>Owner</b>	<b>Participation Percentage</b>	<b>Contract Date Started</b>	<b>Contract Date Completed</b>	<b>% WA<sup>3</sup></b>	<b>% TE<sup>4</sup></b>	<b>Major Categories of Work</b>	<b>Dimension</b>	<b>Total As Built Cost Per Major Work Category</b>
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NORZAGARAY WATER DISTRICT

<sup>3</sup> WA = Work Accomplished

<sup>4</sup> TE = Time Elapsed







NORZAGARAY WATER DISTRICT

Name of the Contract :

Location of the Contract :

**OUTLINE**  
**NARRATIVE DESCRIPTION**  
**OF**  
**CONSTRUCTION METHODS**

**1.0 INTRODUCTION**

Refer to Bidding, etc.

**2.0 BRIEF DESCRIPTION OF CONTRACT WORKS**

State general features of contract works. Use tables as necessary.

**3.0 CONSTRUCTION METHODS AND PROCEDURES**

3.1 Methodology or General Approach

State general approach in construction in terms of use of equipment-intensive or labor-based methods, any special techniques, methods or procedures to ensure completion on time and quality of construction financing the project, etc.

3.2 Program of Work

CPM, Progress Bar Schedule and Development Schedules submitted.

3.3 Financial Program

Cash flow schedules, provision for working capital, schedule of receipts, etc.



NORZAGARAY WATER DISTRICT

Name of the Contract  
 Location of the Contract

**Qualification of Key Personnel Proposed to be Assigned to the Contract**

Business Name : \_\_\_\_\_  
 Business Address : \_\_\_\_\_  
 \_\_\_\_\_

	Project Manager / Engineer	Materials Engineer	Foreman	Construction Safety and Health Personnel	Other positions deemed required by the Applicant for this project
1 Name					
2 Address					
3 Date of Birth					
4 Employed Since					
5 Experience					
6 Previous Employment					
7 Education					
8 PRC License					

Minimum Requirements : Project Manager / Engineer  
 : Materials Engineer  
 : Foreman  
 : Foreman

Note : Attached individual resume and PRC License of the (professional) personnel.

Submitted by : \_\_\_\_\_  
 (Printed Name & Signature)  
 Designation : \_\_\_\_\_  
 Date : \_\_\_\_\_

NORZAGARAY WATER DISTRICT

Name of the Contract :

Location of the Contract :

**List of Equipment, Owned or Leased and/or under Purchase Agreements, Pledged to the Proposed Contract**

Business Name : \_\_\_\_\_

Business Address : \_\_\_\_\_

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

List of minimum equipment required for the project:

Submitted by : \_\_\_\_\_  
 (Printed Name & Signature)

Designation : \_\_\_\_\_

Date : \_\_\_\_\_



NORZAGARAY WATER DISTRICT  
Name of the Contract  
Location of the Contract

**AFFIDAVIT OF SITE INSPECTION**

I,           (Representative of the Bidder)          , of legal age,           (civil status)          , Filipino and residing at           (Address of the Representative)          , under oath, hereby depose and say:

1. That I am the           (Position in the Bidder)           of the           (Name of the Bidder)          , with office at           (Address of the Bidder)          ;
2. That I have inspected the site for           (Name of the Contract)          , located at           (location of the Contract)          ;
3. That I am making this statement as part of the requirement for the Technical Proposal of the           (Name of the Bidder)           for           (Name of the Contract)          .

IN FAITH WHEREOF, I hereby affix my signature this            day of           , 20           at           , Philippines.

\_\_\_\_\_  
AFFIANT

SUBSCRIBED AND SWORN TO before me this           , day of            2003, affiant exhibiting to me his/her Community Tax Certificate No.            issued on            at           , Philippines.

\_\_\_\_\_  
(Notary Public)

Until	_____
PTR No.	_____
Date	_____
Place	_____
TIN	_____

Doc. No. \_\_\_\_\_  
Page No. \_\_\_\_\_  
Book No. \_\_\_\_\_  
Series of \_\_\_\_\_

NORZAGARAY WATER DISTRICT

Name of the Contract :

Location of the Contract :

Contract Name : \_\_\_\_\_

Location : \_\_\_\_\_

**CASH FLOW BY QUARTER AND PAYMENT SCHEDULE**

PARTICULAR	% WT.	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER
ACCOMPLISHMENT					
CASH FLOW					
CUMULATIVE ACCOMPLISHMENT					
CUMULATIVE CASH FLOW					

Submitted by:

Name of the Representative of the BidderPositionName of the Bidder

Date: \_\_\_\_\_



## AFTER SALES SERVICES

The bidder shall add additional numbered pages if necessary for listing additional items.

The bidder shall indicate the facilities he can offer after sales services (after the end of the guarantee period) for the supply of replacement components and skilled maintenance services for the following equipment:

Pipes, valves, fittings and appurtenances:

Gate/Butterfly Valves

Pumps:

Motors

Others :

Signature and Official Stamp of Bidder: \_\_\_\_\_

\_\_\_\_\_

Date : \_\_\_\_\_

### MATERIALS AND EQUIPMENT DETAILS

The Contractor shall provide the following information to be submitted together with the bid. If not included in the contract, disregard the item.

1. Pipelines and Appurtenances

ITEM	MATERIALS TYPE	SUPPLIER/ MANUFACTURER
PIPES		
400 mm dia, joints, fittings	_____	_____
Metal Pipes	_____	_____
400 mm dia, joints, fittings		
Valves & Assemblies		
400 mm	_____	_____
250 mm	_____	_____
Butterfly Valves		
350 mm	_____	_____
300 mm		
Air Release Valve		
75 mm		
Blow-off Valve		
150 mm		

2. Electro-Mechanical Equipment

The information required under this Schedule must be complete. If identical items of equipment are proposed at more than one location, then these locations should be clearly stated at the head of the equipment description. The information required in respect to each item of equipment are as follows:

PART I – MECHANICAL EQUIPMENT

**SUPPLIER/  
MANUFACTURER**

- M.1 Pumps
  - a. Model
  - b. Type
  - c. Q, Rated discharge capacity
  - d. TDH, rated total dynamic head

- e. NPSHR, net positive suction head required at rated condition
- f. Efficiency, at rated conditions
- g. Shut off Head & RPM, rotative speed
- h. Test Certificates (Hydraulic Institute of Standards)

CERTIFIED TEST CURVES

- i. Material of Construction
  - Pump Bowl
  - Impeller
  - Diffuser Valves
  - Shaft
  - Seals
  - Bearings
- j. Driver, close coupled or belt/chain drive
  - Electric Motor
    - Voltage
    - Phase No.
    - Frequency
    - Insulation
    - Enclosure
    - Speed, RPM
    - Rated Hp
  - Engine Drive, close coupled or belt/chain drive
    - No. of Cylinders
    - Gas or diesel
    - Speed RPM at rated condition
    - Kind of starter
    - Rated Hp

Note: Drive Hp shall be non-overloading anywhere on the certified hydraulic curve.

- k. Quality Assurance – ISO-9001 Certification, assurance written under quality assurance program.

Signature and Official Stamp of Bidder: \_\_\_\_\_

\_\_\_\_\_

Date : \_\_\_\_\_

## Performance Security

..... Bank's name, and address of issuing branch or office .....

**Beneficiary:** ..... Name and address of the employer .....

**Date:** .....

**Performance Guarantee No.:** .....

We have been informed that . . . . . *name of the contractor*. . . . . (hereinafter called "the Contractor") has entered into Contract No. . . . . *reference number of the contract*. . . . . dated . . . . . with you, for the execution of . . . . . *name of contract and brief description of plant and services*. . . . . (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Contractor, we . . . . . *name of the bank*. . . . . hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of . . . . . *name of the currency and amount in words*<sup>5</sup>. . . . . (*amount in figures*. . . . .) such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire no later than the earlier of

(a) 18 months after our receipt of

- (i) a copy of the Completion Certificate; or
- (ii) a registered letter from the Contractor, attaching a copy of the notice to the project manager that the Facilities are ready for commissioning, and stating that 14 days have elapsed from receipt of such notice (or 7 days have elapsed if the notice was a repeated notice) and the project manager has failed to issue a Completion Certificate or inform the Contractor in writing of any defects or deficiencies; or
- (iii) a registered letter from the Contractor stating that no Completion Certificate has been issued but the Employer is making use of the Facilities; or

(b) the \_\_\_\_ day of \_\_\_\_\_, 2\_\_\_\_.

---

<sup>5</sup> The guarantor shall insert an amount representing the percentage of the contract price specified in the contract and denominated either in the currency(ies) of the contract or a freely convertible currency acceptable to the employer.

Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458 (or ICC Publication No. 758 as applicable), except that subparagraph (ii) of Sub-Article 20(a) is hereby excluded.<sup>6</sup>

.....  
*Signature(s) and seal of bank (where appropriate)*

*If the institution issuing the performance security is located outside the country of the employer, it shall have a correspondent financial institution located in the country of the employer to make it enforceable.*

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<sup>6</sup> Or the same or similar to this clause specified in the Uniform Rules for Demand Guarantees, ICC Publication No. 758, where applicable.

# **Annexes**

**Annex 1 Initial Environmental Examination**

**Annex 2 Gender Action Plan**

**Annex 3 Due Diligence Report for Resettlement**

**Annex 4 Construction Guidelines for Project Implementation during the period of  
Public Health Emergency**

