

PHILIPPINE BIDDING DOCUMENTS

Procurement of INFRASTRUCTURE PROJECTS

Government of the Republic of the Philippines

**“Design and Build of 500 Cu. M. Ground Reservoir with
Booster (1+1) and Pump Station and Other
Appurtenances at Brgy.Naguilayan, Binmaley,
Pangasinan”**

ITB: 2021-02-001

**Sixth Edition
July 2020**

TABLE OF CONTENTS

Glossary of Terms, Abbreviations, and Acronyms	3
Section I. Invitation to Bid.....	6
Section II. Instructions to Bidders	9
1. Scope of Bid.....	10
2. Funding Information	10
3. Bidding Requirements.....	10
4. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices	10
5. Eligible Bidders.....	10
6. Origin of Associated Goods	11
7. Subcontracts	11
8. Pre-Bid Conference.....	11
9. Clarification and Amendment of Bidding Documents.....	11
10. Documents Comprising the Bid: Eligibility and Technical Components	11
11. Documents Comprising the Bid: Financial Component	12
12. Alternative Bids	12
13. Bid Prices	13
14. Bid and Payment Currencies.....	13
15. Bid Security.....	13
16. Sealing and Marking of Bids.....	13
17. Deadline for Submission of Bids	13
18. Opening and Preliminary Examination of Bids	13
19. Detailed Evaluation and Comparison of Bids	14
20. Post Qualification.....	14
21. Signing of the Contract	14
Section III. Bid Data Sheet	15
Section IV. General Conditions of Contract.....	20
1. Scope of Contract.....	21
2. Sectional Completion of Works	21
3. Possession of Site	21
4. The Contractor's Obligations.....	21
5. Performance Security	22
6. Site Investigation Reports	22

7.	Warranty.....	22
8.	Liability of the Contractor.....	22
9.	Termination for Other Causes.....	22
10.	Dayworks	23
11.	Program of Work.....	23
12.	Instructions, Inspections and Audits	23
13.	Advance Payment.....	23
14.	Progress Payments	23
15.	Operating and Maintenance Manuals.....	24
Section V. Special Conditions of Contract.....		25
Section VI. Specifications		27
Section VII. Drawings.....		50
Section VIII. Bill of Quantities		51
Section IX. Checklist of Technical and Financial Documents		54

Glossary of Terms, Abbreviations, and Acronyms

ABC – Approved Budget for the Contract.

ARCC – Allowable Range of Contract Cost.

BAC – Bids and Awards Committee.

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

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

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

BIR – Bureau of Internal Revenue.

BSP – Bangko Sentral ng Pilipinas.

CDA – Cooperative Development Authority.

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

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

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

CPI – Consumer Price Index.

DOLE – Department of Labor and Employment.

DTI – Department of Trade and Industry.

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

GFI – Government Financial Institution.

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

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

GOP – Government of the Philippines.

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

LGUs – Local Government Units.

NFCC – Net Financial Contracting Capacity.

NGA – National Government Agency.

PCAB – Philippine Contractors Accreditation Board.

PhilGEPS - Philippine Government Electronic Procurement System.

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

PSA – Philippine Statistics Authority.

SEC – Securities and Exchange Commission.

SLCC – Single Largest Completed Contract.

UN – United Nations.

Section I.

Invitation to Bid



BINMALEY WATER DISTRICT

Luna St., Binmaley, Pangasinan

E-mail address: biwad_79@yahoo.com

Telefax: (075)540-0054; Tel.Nos: (075)540-0057 to 58

Invitation to Bid for “Design and Build of 500 Cu. M. Ground Reservoir with Booster (1+1) and Pump Station and Other Appurtenances at Brgy. Naguilayan, Binmaley, Pangasinan”

1. The *Binmaley Water District*, through the *Corporate Budget for the Year 2021* intends to apply the sum of ***Fourteen Million Pesos (P14,000,000.00)*** being the Approved Budget for the Contract (ABC) to payments under the contract for ***Design and Build of 500 Cu. M. Ground Reservoir with Booster (1+1) and Pump Station and Other Appurtenances at Brgy. Naguilayan, Binmaley, Pangasinan, with Project Identification Number ITB: 2021-02-001.*** Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The *Binmaley Water District* now invites bids for the above Procurement Project. Completion of the Works is required ***One Hundred Eighty (180) calendar days from receipt of 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 Section II (Instructions to Bidders).
3. Bidding will be conducted through open competitive bidding procedures using non-discretionary “*pass/fail*” criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.
4. Interested bidders may obtain further information from *Binmaley Water District* and inspect the Bidding Documents at the address given below from ***8:00 AM to 5:00 PM, Mondays to Fridays except Holidays.***
5. A complete set of Bidding Documents may be acquired by interested bidders on ***February 10, 2021 to March 22, 2021*** from the given address and website/s below and ***upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of Twenty Five Thousand Pesos (P25,000.00).*** The Procuring Entity shall allow the bidder to present its proof of payment for the fees in person.
6. The *Binmaley Water District* will hold a Pre-Bid Conference on ***March 09, 2021, 10:00 AM*** at ***Binmaley Water District, Luna St. Poblacion, Binmaley, Pangasinan,*** which shall be open to prospective bidders.

7. Bids must be duly received by the BAC Secretariat through manual submission at the ***Old Administration Building, Caloocan Sur, Binmaley, Pangasinan*** on or before ***March 22, 2021, 10:00 A.M.*** Late bids shall not be accepted.
8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 15.
9. Bid opening shall be on ***March 22, 2021, 10:00 A.M. at the Old Administration Building, Caloocan Sur, Binmaley, Pangasinan.*** Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
10. The ***Binmaley Water District*** reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
11. For further information, please refer to:

Mary Virginia A. Agustin
BAC-Secretariat
Binmaley Water District
Luna St. Poblacion, Binmaley, Pangasinan
E-mail Address: biwad_79@yahoo.com
Contact No: (075) 540-0054/540-0057 to 58

12. You may visit **<https://www.binmaleywaterdistrict.gov.ph>** for downloading of Bidding Documents.

Date of Issue: February 10, 2021

JACQUELINE F. TERRADO
BAC-Chairperson

Section II.

Instructions to Bidders

1. Scope of Bid

The Procuring Entity, **Binmaley Water District** invites Bids for the **Design and Build of 500 Cu. M. Ground Reservoir with Booster (1+1) and Pump Station and Other Appurtenances at Brgy. Naguilayan, Binmaley, Pangasinan, with Project Identification Number ITB: 2021-02-001.**

The Procurement Project (referred to herein as “Project”) is for the construction of Works, as described in Section VI (Specifications).

2. Funding Information

2.1. The GOP through the source of funding as indicated below for **CY 2021** in the amount of **Fourteen Million Pesos (P14,000,000.00).**

2.2. The source of funding is the Corporate Operating Budget.

3. Bidding Requirements

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manual and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof.

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or invitation to bid by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have inspected the site, determined the general characteristics of the contracted Works and the conditions for this Project, such as the location and the nature of the work; (b) climatic conditions; (c) transportation facilities; (c) nature and condition of the terrain, geological conditions at the site communication facilities, requirements, location and availability of construction aggregates and other materials, labor, water, electric power and access roads; and (d) other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

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

The Procuring Entity, as well as the Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex “I” of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

5. Eligible Bidders

- 5.1. Only Bids or Bidders found to be legally, technically, and financially capable will be evaluated.
- 5.2. The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the PSA's CPI, except under conditions provided for in Section 23.4.2.4 of the 2016 revised IRR of RA No. 9184.

A contract is considered to be "similar" to the contract to be bid if it has the major categories of work stated in the **BDS**.

- 5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

6. Origin of Associated Goods

There is no restriction on the origin of Goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN.

7. Subcontracts

- 7.1. The Bidder may subcontract portions of the Project to the extent allowed by the Procuring Entity as stated herein, but in no case more than fifty percent (50%) of the Project.

The Procuring Entity has prescribed that: Subcontracting is not allowed.

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address as indicated in paragraph 6 of the **IB**.

9. Clarification and Amendment of Bidding Documents

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the **IB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

10. Documents Comprising the Bid: Eligibility and Technical Components

- 10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.
- 10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.
- 10.3. A valid PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
- 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.
- 10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

11. Documents Comprising the Bid: Financial Component

- 11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.
- 11.2. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.3. For Foreign-funded procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

12. Alternative Bids

Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic technical design as indicated in the drawings and specifications. Unless there is a value engineering clause in the **BDS**, alternative Bids shall not be accepted.

13. Bid Prices

All bid prices for the given scope of work in the Project as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as determined by the NEDA and approved by the GPPB pursuant to the revised Guidelines for Contract Price Escalation guidelines.

14. Bid and Payment Currencies

14.1. Bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.

14.2. *Payment of the contract price shall be made in:* Philippine Pesos.

15. Bid Security

15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.

15.2. The Bid and bid security shall be valid until **July 20, 2021**. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

Each Bidder shall submit one copy of the first and second components of its Bid.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

If the Procuring Entity allows the submission of bids through online submission to the given website or any other electronic means, the Bidder shall submit an electronic copy of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

17. Deadline for Submission of Bids

The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph 7 of the **IB**.

18. Opening and Preliminary Examination of Bids

- 18.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

- 18.2. The preliminary examination of Bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

19. Detailed Evaluation and Comparison of Bids

- 19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*" using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of 2016 revised IRR of RA No. 9184.
- 19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 16 shall be submitted for each contract (lot) separately.
- 19.3. In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

20. Post Qualification

Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS), and other appropriate licenses and permits required by law and stated in the **BDS**.

21. Signing of the Contract

The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.

Section III.

Bid Data Sheet

Bid Data Sheet

ITB Clause																														
5.2	For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be: <i>Design and Build of Ground Reservoir Works.</i>																													
7.1	Subcontracting is not allowed.																													
10.3	<i>No further instructions.</i>																													
10.4	The key personnel must meet the required minimum years of experience set below: <table><tr><th><u>Key Personnel</u></th><th><u>General Experience</u></th><th><u>Relevant Experience</u></th></tr><tr><td>1. Licensed Civil Engineer</td><td>Project Engineer</td><td>10 years Waterworks/Building Construction</td></tr><tr><td>2. Licensed Civil Engineer</td><td>Quality Control and Materials Engineer (Accredited by DPWH)</td><td>5 years Waterworks/Building Construction</td></tr><tr><td>3. Structural Engineer</td><td>Structural Designer</td><td>5 years Waterworks/Building Construction</td></tr><tr><td>4. Architect</td><td>Architectural Designer</td><td>5 years Waterworks/Building Construction</td></tr><tr><td>5. Sanitary Engineer</td><td>Project Sanitary Engineer</td><td>5 years Waterworks/Building Construction</td></tr><tr><td>6. Electrical Engineer</td><td>Project Electrical Engineer</td><td>5 years Waterworks/Building Construction</td></tr><tr><td>7. Civil Engineer/ Professional</td><td>Safety and Health Personnel (Accredited by DOLE)</td><td>2 years Waterworks/Building Construction</td></tr><tr><td>8. General Foreman</td><td>College Level</td><td>5 years Waterworks/Building Construction</td></tr></table>			<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>	1. Licensed Civil Engineer	Project Engineer	10 years Waterworks/Building Construction	2. Licensed Civil Engineer	Quality Control and Materials Engineer (Accredited by DPWH)	5 years Waterworks/Building Construction	3. Structural Engineer	Structural Designer	5 years Waterworks/Building Construction	4. Architect	Architectural Designer	5 years Waterworks/Building Construction	5. Sanitary Engineer	Project Sanitary Engineer	5 years Waterworks/Building Construction	6. Electrical Engineer	Project Electrical Engineer	5 years Waterworks/Building Construction	7. Civil Engineer/ Professional	Safety and Health Personnel (Accredited by DOLE)	2 years Waterworks/Building Construction	8. General Foreman	College Level	5 years Waterworks/Building Construction
<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>																												
1. Licensed Civil Engineer	Project Engineer	10 years Waterworks/Building Construction																												
2. Licensed Civil Engineer	Quality Control and Materials Engineer (Accredited by DPWH)	5 years Waterworks/Building Construction																												
3. Structural Engineer	Structural Designer	5 years Waterworks/Building Construction																												
4. Architect	Architectural Designer	5 years Waterworks/Building Construction																												
5. Sanitary Engineer	Project Sanitary Engineer	5 years Waterworks/Building Construction																												
6. Electrical Engineer	Project Electrical Engineer	5 years Waterworks/Building Construction																												
7. Civil Engineer/ Professional	Safety and Health Personnel (Accredited by DOLE)	2 years Waterworks/Building Construction																												
8. General Foreman	College Level	5 years Waterworks/Building Construction																												
10.5	The minimum major equipment requirements are the following: <table><tr><th><u>Equipment</u></th><th><u>Capacity</u></th><th><u>Number of Units</u></th></tr><tr><td>1. Backhoe with breaker</td><td>0.30/1cu.m.</td><td>1</td></tr><tr><td>2. Mini Dump Truck</td><td>14 metric tons</td><td>1</td></tr><tr><td>3. Welding Generator</td><td>-</td><td>2</td></tr><tr><td>4. Service Vehicle</td><td>4</td><td>2</td></tr><tr><td>5. Pay Loader</td><td></td><td>1</td></tr></table>			<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>	1. Backhoe with breaker	0.30/1cu.m.	1	2. Mini Dump Truck	14 metric tons	1	3. Welding Generator	-	2	4. Service Vehicle	4	2	5. Pay Loader		1									
<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>																												
1. Backhoe with breaker	0.30/1cu.m.	1																												
2. Mini Dump Truck	14 metric tons	1																												
3. Welding Generator	-	2																												
4. Service Vehicle	4	2																												
5. Pay Loader		1																												

	6. Dewatering Pump - 2 7. Oxygen/Acetylene Cutting Outfit and Tanks - 2 8. Electric Welding Machine - 4 9. Fabricated Steel Erection Boom - 1 10. One Bagger Concrete Mixer - 2 11. Water Truck 3 cu.m. 1 12. Tower Light with Rope Light - 1 13. Boom Truck - 1 14. Chain Block 5 tonner 4 15. Compactor - 2 16. Concrete Vibrator - 2
12	Value Engineering clause allowed part of technical proposal.
15.1	<p>The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:</p> <p>a. The amount of not less than <i>two percent (2%) of ABC</i> or Two Hundred Eighty Thousand Pesos (Php280,000.00) if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit;</p> <p>b. The amount of not less than <i>five percent (5%) of ABC</i> or Seven Hundred Thousand Pesos (Php700,000.00) if bid security is in Surety Bond.</p>
19.2	Partial bids are not allowed.
20	Environmental Compliance Certificate, Certification that the project site is not within a geohazard zone.
21	<p>Additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity, such as construction schedule and S-curve, manpower schedule, construction methods, equipment utilization schedule, construction safety and health program approved by the DOLE, and other acceptable tools of project scheduling.</p> <p>Additional Contract Documents:</p> <p>The eligibility requirements for Design and Build Infrastructure Projects shall comply with the applicable provisions of Section 23-24 of 2016 Revised IRR of RA9184.</p> <p>A modified set of requirements integration eligibility documents and criteria for infrastructure projects and consulting services shall be adopted as follows pursuant to Section 9 of Annex "G" of the 2016 Revised IRR of RA9184.</p> <p>i. Class "A" Documents (Legal, Technical and Financial Documents) and Class "B" Documents.</p>

	<p>The prospective bidder shall submit all the required Class “A” and Class “B” documents for infrastructure projects and the following:</p> <ul style="list-style-type: none"> a) Relevant statements of all on-going, completed, awarded but not yet started design/ design and build related contracts, curriculum vitae of key staff, partners or principal officers, and; b) Valid licenses issued by the Professional Regulatory Commission (PRC) for design professionals in accordance with the provisions under Section 24.1 (a)(iv) of this IRR. <p>ii. Eligibility Criteria</p> <ul style="list-style-type: none"> a) The eligibility of design and build contractors shall be based on the legal, technical and financial requirements abovementioned. In the technical requirements, the design and build contractor (as solo or in joint venture/consortia) should be able to comply with the experience requirement under the IRR of RA 9184, where one of the parties (in a joint venture/consortia) should have at least one similar project, both in design and construction, with at least 50% of the cost of the ABC. b) If the bidder has no experience in design and build project on its own, it may enter into partnerships or joint venture with design or engineering firms for the design portion of the contract. c) The relevant provisions under Section 23.5.214 of the Revised IRR of RA 9184 on eligibility requirements shall be observed, with the following exceptions: <p>Joint ventures/consortia among Filipino contractors and consultants or among Filipino contractors and foreign consultants shall be allowed subject to pertinent laws and the relevant provisions of the IRR of RA 9184. The joint venture/consortia shall be jointly and severally responsible for the obligations and the civil liabilities arising from the design and build contract; Provided, however, that Filipino ownership or interest thereof shall be at least seventy five percent (75%); Provided further, that joint ventures/consortia in which Filipino ownership or interest is less than seventy five percent (75%) may be eligible where the structures to be built require the application of techniques and/or technologies which are not adequately possessed by Filipinos and that Filipino ownership or interest shall not be less than twenty five percent (25%); Provided, finally, that when the design regulated by law, all those who will actually perform the services shall be Filipino citizens and services in which the joint venture wishes to engage involve the practice of professions, registered professionals authorized by the appropriate regulatory body to practice those professions and allied professions and where foreign designers are required, the foreign designer must be authorized by the appropriate Philippine Government professional regulatory body to engage in the practice of those professions and allied</p>
--	--

	<p>professions.</p> <p>In the submission of bids, the first envelope (Technical Proposal) shall contain all the required documents for infrastructure projects under Section 25.2(b) of the IRR of RA 9184 and the following additional documents pursuant to Section 10 of Annex “G” of the 2016 Revised IRR of RA 9184.</p> <ul style="list-style-type: none"> i. Preliminary Conceptual Design Plans in accordance with the degree of details specified by the procuring entity; 9refer to TOR) ii. Design and Construction Methods; iii. List of design and construction personnel, to be assigned to the contract to be bid, with their complete qualification and experience data; and, iv. Value engineering analysis of design and construction method.
--	---

Section IV.

General Conditions of Contract

1. Scope of Contract

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

2. Sectional Completion of Works

If sectional completion is specified in the **Special Conditions of Contract (SCC)**, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date shall apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

3. Possession of Site

3.1 The Procuring Entity shall give possession of all or parts of the Site to the Contractor based on the schedule of delivery indicated in the **SCC**, which corresponds to the execution of the Works. If the Contractor suffers delay or incurs cost from failure on the part of the Procuring Entity to give possession in accordance with the terms of this clause, the Procuring Entity's Representative shall give the Contractor a Contract Time Extension and certify such sum as fair to cover the cost incurred, which sum shall be paid by Procuring Entity.

3.2 If possession of a portion is not given by the above date, the Procuring Entity will be deemed to have delayed the start of the relevant activities. The resulting adjustments in contract time to address such delay may be addressed through contract extension provided under Annex "E" of the 2016 revised IRR of RA No. 9184.

4. The Contractor's Obligations

The Contractor shall employ the key personnel named in the Schedule of Key Personnel indicating their designation, in accordance with **ITB** Clause 10.3 and specified in the **BDS**, to carry out the supervision of the Works.

The Procuring Entity will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are equal to or better than those of the personnel listed in the Schedule.

5. Performance Security

- 5.1. Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR.
- 5.2. The Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to RA No. 3688 against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

6. Site Investigation Reports

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

7. Warranty

- 7.1. In case the Contractor fails to undertake the repair works under Section 62.2.2 of the 2016 revised IRR, the Procuring Entity shall forfeit its performance security, subject its property(ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding. All payables of the GOP in his favor shall be offset to recover the costs.
- 7.2. The warranty against Structural Defects/Failures, except that occasioned-on force majeure, shall cover the period from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity. Specific duration of the warranty is found in the **SCC**.

8. Liability of the Contractor

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

If the Contractor is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

9. Termination for Other Causes

Contract termination shall be initiated in case it is determined *prima facie* by the Procuring Entity that the Contractor has engaged, before, or during the implementation of the contract, in unlawful deeds and behaviors relative to contract acquisition and implementation, such as, but not limited to corrupt, fraudulent, collusive, coercive, and obstructive practices as stated in **ITB** Clause 4.

10. Dayworks

Subject to the guidelines on Variation Order in Annex “E” of the 2016 revised IRR of RA No. 9184, and if applicable as indicated in the **SCC**, the Dayworks rates in the Contractor’s Bid shall be used for small additional amounts of work only when the Procuring Entity’s Representative has given written instructions in advance for additional work to be paid for in that way.

11. Program of Work

11.1. The Contractor shall submit to the Procuring Entity’s Representative for approval the said Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works. The submissions of the Program of Work are indicated in the **SCC**.

11.2. The Contractor shall submit to the Procuring Entity’s Representative for approval an updated Program of Work at intervals no longer than the period stated in the **SCC**. If the Contractor does not submit an updated Program of Work within this period, the Procuring Entity’s Representative may withhold the amount stated in the **SCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.

12. Instructions, Inspections and Audits

The Contractor shall permit the GOP or the Procuring Entity to inspect the Contractor’s accounts and records relating to the performance of the Contractor and to have them audited by auditors of the GOP or the Procuring Entity, as may be required.

13. Advance Payment

The Procuring Entity shall, upon a written request of the Contractor which shall be submitted as a Contract document, make an advance payment to the Contractor in an amount not exceeding fifteen percent (15%) of the total contract price, to be made in lump sum, or at the most two installments according to a schedule specified in the **SCC**, subject to the requirements in Annex “E” of the 2016 revised IRR of RA No. 9184.

14. Progress Payments

The Contractor may submit a request for payment for Work accomplished. Such requests for payment shall be verified and certified by the Procuring Entity’s Representative/Project Engineer. Except as otherwise stipulated in the **SCC**, materials and equipment delivered on the site but not completely put in place shall not be included for payment.

15. Operating and Maintenance Manuals

- 15.1. If required, the Contractor will provide “as built” Drawings and/or operating and maintenance manuals as specified in the **SCC**.
- 15.2. If the Contractor does not provide the Drawings and/or manuals by the dates stated above, or they do not receive the Procuring Entity’s Representative’s approval, the Procuring Entity’s Representative may withhold the amount stated in the **SCC** from payments due to the Contractor.

Section V.

Special Conditions of Contract

Special Conditions of Contract

GCC Clause	
2	The intended Completion Date is One Hundred Eighty (180) calendar days which will commence within seven calendar days from the date of Notice to Proceed.
4.1	The Procuring Entity shall give possession of all parts of the site to the contractor after a pre-construction meeting between authorized representatives of the Procuring Entity and the Contractor.
6	The site investigation reports are: <ol style="list-style-type: none"> 1. Affidavit of Site Inspection 2. Soil Investigation Report
7.2	<i>In case of permanent structures, such as buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures: Fifteen (15) years.</i>
10	No dayworks are applicable to the contract.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within <u>10 days</u> of delivery of the Notice of Award.
11.2	The amount to be withheld for late submission of an updated Program of Work is Php 20,000.00.
13	The amount of the advance payment <i>shall not exceed 15% of the total contract price and schedule of payment.</i>
14	<i>No further instructions.</i>
15.1	The date by which operating and maintenance manuals are required is before the issuance of Certificate of Completion. The date by which “as built” drawings are required is before the issuance of Certificate of Completion.
15.2	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required is Php100,000.00

Section VI.

Specifications

TERMS OF REFERENCE

I. BACKGROUND

A study was undertaken to identify several projects to hasten the social and economic growth of within the service area of Binmaley Water District. Included in its list of priorities is to improve the waterworks system to have a stable and sufficient potable water supply. Due to increase of projected population and economic growth within the service area of Binmaley Water District, the average daily water demand also increases. The concessionaires' feedback of shortage of water supply and low pressure, especially during peak hours and summer season, is intended to resolve by Binmaley Water District to improve its service.

Included in the study are the physical design parameters of Construction of 500 cu.m. Ground Reservoir with Booster (1+1) and Pump Station and Other Appurtenances at Brgy. Naguilayan, Binmaley, Pangasinan in order to solve the shortage of water supply and low pressure. The project is also self-liquidating and a veritable source of additional revenue to the Binmaley Water District.

It was found on the study that the project was viable and consequently, the Board of Directors of Binmaley Water District passed the Corporate Budget and the Annual Procurement Plan (APP) which includes the Construction of 500 cu.m. Ground Reservoir with Booster (1+1) and Pump Station and Other Appurtenances at Brgy. Naguilayan, Binmaley, Pangasinan in the amount of **Fourteen Million Pesos (P 14,000,000.00)**.

Due to urgency and time constraint to put up the 500 cu.m. Ground Reservoir with Booster (1+1) and Pump Station and Other Appurtenances per aforementioned reasons, it was decided that the Detailed Architectural and Engineering Designs of the structure (based on the basic needs and design concepts of the Binmaley Water District) shall be included in the overall bidding process on the ground that Binmaley Water District does not have professional structural engineers, architect and other technical professionals who can prepare the detailed engineering design and related technical documents.

It is within the foregoing perspectives that this **TERMS OF REFERENCE (TOR)** for the "Design and Build of 500 cu.m. Ground Reservoir with Booster (1+1) and Pump Station and Other Appurtenances at Brgy. Naguilayan, Binmaley, Pangasinan" is issued to qualified bidders.

Design and Build Projects. This refers to infrastructure projects where the Binmaley Water District awards a single contract for the architectural/engineering design and construction to a single firm, partnership, corporation, joint venture or consortium in accordance with the Annex "G" of the 2016 Revised Implementing Rules and Regulations of R.A. 9184 known as "Government Procurement Reforms Acts".

II. LEGAL BASIS

1. The Board of Directors of Binmaley Water District approved the project included in the 2021 Corporate Budget of Binmaley Water District.

2. The Project is included in the Project Procurement Management Plan (PPMP) and in the Annual Procurement Plan (APP) of Binmaley Water District.
3. The Binmaley Water District General Manager approved BAC Resolution No. 06, series 2021, dated January 25, 2021 which indicates Competitive Public Bidding as mode of procurement for the Design and Build Scheme under Annex “G” of the 2016 Revised IRR of R.A. 9184 for the implementation of the above-mentioned project.
4. A Competitive Public Bidding for the "Design and Build of 500 cu.m. Ground Reservoir with Booster (1+1) and Pump Station and Other Appurtenances at Brgy. Naguilayan, Binmaley, Pangasinan" includes the preparation of the entire Detailed Architectural and Engineering Designs (Design and Build Scheme) in accordance with the 2016 Implementing Rules and Regulations of RA 9184, otherwise known as Government Procurement Reform Act”. In particular, Annex “G” - **Guidelines for the Procurement and Implementation of Contracts for Design and Build Infrastructure Projects** has been adopted considering the urgency of its implementation, economy in terms of time, expenses in bidding process, and as a way of overcoming the limited expert manpower services and technical resources of Binmaley Water District, all proposals shall not exceed **Php14,000,000.00.**

III. GENERAL SCOPE OF WORKS

Performance Specifications and Parameters. The required performance specifications and criteria and its means of measurement is based on the operating outputs and in accordance with appropriate design and construction standards, legal and technical obligations, and any other relevant government commitments as required by existing laws and regulations. It shall not be drawn up to favour a particular solution, design and construction method.

1. The project covers the "Design and Build of 500 cu.m. Ground Reservoir with Booster (1+1) and Pump Station and Other Appurtenances at Brgy. Naguilayan, Binmaley, Pangasinan" with a project description of Glass-Line-to-Steel/Glass-Fused-to-Steel bolted Sectional tank, including foundation, tank cover, tank structure and other appurtenances.
2. With respect to the site and space planning were governed by the standards, rules and regulations on the design of Binmaley Water District and other concerned agencies.

Construction of the Ground Reservoir and other structures, the design and specifications shall conform to the standards set by:

- Department of Public Works and Highways (DPWH) standards
- Local Water Utilities Administration (LWUA) standards
- American Water Works Association (AWWA)
- National Structural Code of the Philippines
- Electrical Engineering Law (RA 7920)
- Mechanical Engineering Law (RA 5336),
- Plumbing Code (RA 1378, 1993-1994 Revisions),
- Environmental Impact Statement as defined by the DENR
- Engineering Standards and

- Other laws and regulations covering environmental concerns and local ordinances and regulations.
3. The bidder shall have utilized Specialized Technical Staffs for the Pre-Detailed Design and Detailed Design portion of the contract or enters into partnerships or joint venture supported by a Memorandum of Agreement (MOA) with design, engineering or architectural firm with minimum number of professionals as shown below:

<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>
1. Licensed Civil Engineer	Project Engineer	10 years Waterworks/Building Construction
2. Licensed Civil Engineer	Quality Control and Materials Engineer (Accredited by DPWH)	5 years Waterworks/Building Construction
3. Structural Engineer	Structural Designer	5 years Waterworks/Building Construction
4. Architect	Architectural Designer	5 years Waterworks/Building Construction
5. Sanitary Engineer	Project Sanitary Engineer	5 years Waterworks/Building Construction
6. Electrical Engineer	Project Electrical Engineer	5 years Waterworks/Building Construction
7. Civil Engineer/ Professional	Safety and Health Personnel (Accredited by DOLE)	2 years Waterworks/Building Construction
8. General Foreman	College Level	5 years Waterworks/Building Construction

The Bidder is required to prioritize the hiring of locally-based architects, engineers, and draftsmen especially if such have had experience and training in waterworks projects and design.

4. Technical Reports and sanitary engineering including actual test or site investigations shall be required.
5. A complete set of architectural, engineering drawings, structural plans and other working plans shall be drawn in appropriate scales indicating all necessary details in order that the structures can be set out and constructed in accordance with guidelines and standards shall be furnished by the bidder.
6. The bidder shall include in his proposal the cost of the proposed "Design and Build of 500 cu.m. Ground Reservoir with Booster (1+1) and Pump Station and Other Appurtenances at Brgy. Naguilayan, Binmaley, Pangasinan" including the Detailed Architectural and Engineering Designs and other related research, surveys, and technical studies and test or site investigation required, to come out with the design.

7. The Lowest Calculated and Responsive Bidder shall enter into a contract with the Binmaley Water District that shall be in the nature of a Design and Build Scheme of the project.
8. The winning bidder shall then proceed with the "Design and Build of 500 cu.m. Ground Reservoir with Booster (1+1) and Pump Station and Other Appurtenances at Brgy. Naguilayan, Binmaley, Pangasinan" under the terms and conditions set forth herein.
9. Upon Project Completion and Final Acceptance in accordance with the terms and conditions set forth herein, the Contractor shall turnover the completed project to the Binmaley Water District for proper disposition.

IV. DETAILED SCOPE OF WORKS

A. PRE-PLANNING PHASE

Preliminary Investigations. These shall include, among others, information on soil, geotechnical, hydrologic, hydraulic, seismic, traffic, and environmental conditions that shall be used to define project design criteria, to set the basis for any changed conditions and establish preliminary project cost estimates.

The bidder, by submitting his bid, represents that:

1. He has thoroughly read/examined carefully understands fully all the bid documents and his bid will be in accordance therewith.
2. His bid is based upon the conditions and requirements of the bid documents without exception.
3. He has visited and inspected the Site of Works and its surroundings and satisfied himself as to all matters pertaining to the project, including the location and the nature of the work; climatic conditions; the nature and condition of the terrain: geological conditions at the site; transportation and communication facilities; the requirement and the availability of materials, labor, water, electric power and roads; the locations and extent of aggregate sources, and other factors that may affect the cost, duration and execution of the work; that he has determined the general characteristics of the project and the conditions indicated above.
4. He has acquainted and familiarized himself with all conditions, local or otherwise, affecting the carrying out of the contract work and has arrived at an estimate of the facilities available and the facilities needed for the project.
5. He is aware that Binmaley Water District shall not assume any responsibility regarding erroneous interpretations out of any data furnished by the Municipal Government.
6. He has familiarized himself with all laws, decrees, and regulations of the Municipal Government, Provincial Government and National Government where the project is located which affect or apply to the operations and activities of the contractor.

7. He is aware that the construction period of the project shall be 180 calendar days reckoned from the receipt of the **Notice to Proceed**.

B. PLANNING /ENGINEERING DESIGN PHASE

1. Surveys and Site Investigation

- i. Preliminary Survey and Mapping. These shall determine boundaries and provide stationing along control lines to establish feature and design criteria location, and identify existing and future right-of-way limits and construction easements associated with the Binmaley Water District's conceptual design.
- ii. The bidder is expected to conduct actual site survey of the project area to identify preliminarily, metes and bounds of the proposed buildings. In the process, he shall be able to familiarize himself with site and nearby occupancy. It is also expected that the bidder shall familiarize himself with existing relevant materials and literature available in the Binmaley Water District, to enable him to come up with an intelligent proposal.
- iii. In the conduct of structural surveys, the following parameters need to be considered;
 - (1) Man-made structures

SUBMITTAL/S: Structure Map

2. The bidder is also expected to conduct studies and research work as follows:

- a. Soil and Foundation Investigation Report required for planning and engineering design.

If needed for the planning, analysis and design of the project, the bidder is expected to conduct site investigation sufficient to determine the bearing capacity and other data of the soil foundation which is necessary for the overall structural analysis and design of the building, in order to ensure the safety of the structure.

- b. Determine existing and proposed infrastructure, facilities, utilities, etc., which may have bearing on the planning and design exercises;

SUBMITTAL/S: Soil and Foundation Investigation Report

- c. Utility Locations. The procuring entity shall provide information on existing utilities in and around the project's area.

The bidders shall identify/locate the existing utilities at the site, namely:

- ii. Electrical Power Supply (underground and overhead)
- iii. Water Supply
- iv. Sewer and Storm Drainage
- v. Telephone Lines (underground and overhead)

SUBMITTAL/S: Utility Map

d. Environmental Impact Study

Upon award, the bidder shall prepare an Environmental Impact Assessment (EIA) in order for the Provincial Government to secure an Environmental Compliance Certificate (ECC) from the Environmental Management Bureau (EMB) of the Department of Environment and Natural Resources.

3. Proposed Site Development Plan

- 3.1. Maximize the output of the planning exercise to have a waterwork footprint that has more useable areas within the design standards.
- 3.2. The structure will be positioned in accordance with the conceptual location and site development plan of the Binmaley Water District.
- 3.3. The site development plan shall take into consideration but shall not be limited to the following planning parameters;
 - a. Adequate areas for support facilities such as bunkhouses for workers, temporary latrines, materials warehousing, equipment/motor pools, etc. shall be provided and shall be rationalized in terms of relative location and area.
 - b. Power supply requirements shall be supplied by the local power utility through the initiative of the contractor.
 - c. Water supply shall be supplied by the Binmaley Water District.
 - d. The local telephone company shall supply communication facilities.

SUBMITTAL/S: Site Development Plan.

MINIMUM TANK SPECIFICATION

Proposed "Construction of 500 cu.m. Ground Reservoir with Booster (1+1) and Pump Station and Other Appurtenances"

1. GENERAL

1.1 Scope of Work

- 1.1.1 Supply and erect Glass-Line-to-Steel/Glass-Fused-to-Steel bolted Sectional tank, including foundation, tank cover, tank structure and appurtenances as described herein.

- 1.1.2 All labor, materials, plant, equipment and tools, as required for the construction of storage tank shall be included.

1.2 Qualifications of Tank Supplier

- 1.2.1 The Bidder shall offer new tank structures as supplied from a Manufacturer specializing in the design, fabrication and erection of factory applied Glass-Line-to-Steel/Glass-Fused-to-Steel bolted sectional tank systems. The Manufacturer shall own and operate its own production plant, fabricate and glass coat the tank sheets at one location so as to provide full quality control responsibility over product.
- 1.2.2 The Manufacturer should have proven track record on fabrication and manufacture of Glass-Line-to-Steel/Glass-Fused-to-Steel bolted sectional tank and should follow Quality Assurance procedure audited by a reputable third party institution such as ISO and other International organization on the place of manufacturer.

1.3 Submittal Drawings

- 1.3.1 Construction shall be governed by the Owner's plans and specifications showing general dimensions and construction details, after approval by the Engineer of submittal drawings prepared by the Manufacturer.
- 1.3.2 Submittal drawings shall show as a minimum:-
1. Dimensions, color, description of materials and other pertinent information.
 2. Joint and foundation attachment details.
 3. Tank assembly (general arrangement drawing) with positions of appurtenances.
 4. Details of appurtenances
 5. Roof details.
- 1.3.3 The Bidder is required to furnish, for the review and approval by the Engineer, two sets of construction drawings for all work not shown in complete detail on the bidding drawings.
- 1.3.4 When approved, one set of drawings will be returned to the Bidder marked "APPROVED FOR CONSTRUCTION" and these drawings will then govern the scope of work detailed thereon. The approval by the Engineer of the tank supplier's drawings shall be on approval relating only to their general conformity with the bidding drawings and specifications and shall not

guarantee detailed dimensions and quantities, which remains the Bidder's responsibility.

2. DESIGN CRITERIA

2.1 Design Standards

- 2.1.1 The tank plate/sheet materials, design, fabrication and erection of the sectional tank shall conform to standard ISO 28765:2016 'Vitreous and porcelain enamels Design of bolted steel tanks for the storage or treatment of water or municipal or industrial effluent and sludges'.
- 2.1.2 Structures are to be engineered with a predicted minimum 35-year design life in accordance with the requirements of ISO 15686 Parts 1, 2 & 3 and incorporate the relevant international design standards giving consideration to the design loads specified in Section 2.3.

2.2 Tank Size and Capacity

Tank Net Water Capacity:	500 cubic meters
Nominal Diameter:	12.01 meters
Height:	4.0 meters
Gross Capacity:	528 cubic meters

2.3 Design Load (*to be based on the soil investigation report*)

Roof Live Load:
Wind Speed:
Allowable Soil Bearing Capacity
Seismic Zone:
Specific Gravity of Tank Contents:

2.4 Tank Accessories

- 2.4.1 One (1) 800mm Diameter Mild Steel Galvanized finished Low-level Tank Wall Access Manway
- 2.4.2 Two (2) Hot dip Galvanized Iron Vertical Outer Ladder and Inner Ladder
- 2.4.3 Two (2) 150mm Diameter Air Vent

2.4.4 Four (4) Hot Dip Galvanized Wall Flange Connection (Inlet 150mm/6", Outlet 200mm/8", Drain 200mm/8", and Overflow 200mm/8",)

- *These are all flange type.*

2.5 Roofing Materials and System

2.5.1 Trough Deck Roof

2.5.1.1 The roof shall comprised of profiled mill finish rib type Zinalume roof sheets, hot dip galvanized mild steel support structure, 600mm roof inspection hatch, 500NB GRP fresh air roof vents as required with insect mesh screening and all necessary fixing and sealant.

3. MATERIALS

3.1 Plates and Sheets

3.1.1 Plates and sheets used in the construction of the tank shell, optional floor and roofs, shall comply with the minimum standards of ISO 28765:2016 Section 9.2. Such sheets shall be produced by a hot rolling process and shall be sourced from reputable International steel mills.

3.1.2 Tank Sheet-Steel sheets be High Strength Structural Plate conforming to or shall be at least equal to hot-rolled quality with minimum tensile strength if 480Mpa and yield strength of 420Mpa. Minimum thickness shall be 2mm.

3.1.3 Raw materials delivered to the Manufacturer's plant shall be tested/ inspected to ensure compliance with the Manufacturer's requirements for strength.

3.1.4 Test Certificates issued and conducted by third party reputable international organization shall be available for the Engineers inspection if required.

3.2 Horizontal Wind Stiffeners

3.2.1 As part of the scope of supply, the top stiffener shall be flat, horizontal, continuous surface at tank rim level.

3.2.2 Wind stiffeners shall be steel, hot dip galvanized, rolled steel angle bar.

3.3 Bolt Fasteners

3.3.1 Bolts used in tank lap joints shall conform to BS 3692 and shall be ½"-13 UNC-2A rolled thread with hot dip galvanized coating.

- 3.3.2 All bolts for tank shell and Glass-Fused-to-Steel roof shall be installed such that the head portion is located inside the tank and the washer and nut are on the exterior.
- 3.3.3 All lap joint bolts shall be properly selected such that threaded portions will not be excessively exposed in the “shear plane” between tank sheets. Also, bolt lengths shall be selected to achieve a neat and uniform appearance. The torque values shall not be exceeded during tank construction.
- 3.3.4 All lap joint bolts shall be designed to prevent rotation during tightening.

3.4 Bolt Head Encapsulation

- 3.4.1 All tank shell and Glass-Fused-to-Steel roof structure bolts shall have UV resistant polypropylene encapsulation of the bolt head and be certified to meet Regulation 31 or NSF Standard 61 for indirect additives.
- 3.4.2 All other bolts shall be hot dip galvanized conforming to BS 3692 and shall be ½” -13 UNC-2A rolled thread with hot dip galvanized coating.

3.5 Sealant

- 3.5.1 The sealant shall be used to seal lap joints, bolt connections and sheet edges. The sealant shall cure to a rubber-like consistency and have excellent adhesion to the glass coating, have low shrinkage, and be suitable for interior and exterior exposure.
- 3.5.2 The sealant shall be a one component moisture cured polyurethane compound.
- 3.5.3 Where required, the sealant shall be suitable for contact with potable water and meet Regulation 31 or NSF Standard 61 where specified.
- 3.5.4 EPDM or Neoprene gaskets and tape type sealer shall not be used other than for shell manway door/hatch.

4. GLASS COATING

In cases where both inside and outside surfaces of the sheet are in contact with the stored liquid both surfaces shall be treated as the inside surface for purposes of this specification.

4.1 Coating Standard

- 4.1.1 The tank coating shall meet the quality requirements of ISO 28765:2016 and should conform to NSF Standards.

4.2 Surface Preparation

- 4.2.1 Sheets shall be grit-blasted to a silvery grey finish on both sides to remove mill scale and surface oxidation.
- 4.2.2 Grit blasting shall be performed to the equivalent of SA2½ or SSPC-SP10.
- 4.2.3 The surface anchor pattern shall be in the range of 20µm to 100µm with a target value of 60µm.

4.3 Cleaning

- 4.3.1 Immediately after fabrication and grit blasting and prior to application of the coating materials, all sheets shall be thoroughly cleaned by an alkali wash.
- 4.3.2 Following the alkali wash all sheets shall be rinsed in hot water containing a nitrite based rust inhibitor.
- 4.3.3 The rust inhibition process shall be followed by heat drying to ensure the sheets are clean and dry ready to be coated.

4.4 Coating

- 4.4.1 All sheets shall receive a coat of catalytic nickel oxide based pre-coat to both sides. The pre-coat application weight is controlled and measured and sheets that do not meet the required specification, in accordance with the Manufacturer's specified parameters, shall be rejected at this point.
- 4.4.2 After inspection the sheets shall be fired through the furnace at approximately 850°C in accordance with the Manufacturer's procedures.
- 4.4.3 The firing process shall form a composite glass surface having general acid/alkali resistance to solutions in the range pH 3 to pH 9, subject to temperature and chemical composition.
- 4.4.4 Tank inside sheet color shall be as specified by the Manufacturer. Tank external color shall be Blue (20-C-40).
- 4.4.5 Sample tests shall be carried out by the Manufacturer to ensure that enamel materials meet the physical properties and chemical resistance characteristics as published in the Manufacturer's product Quality Standard. The Manufacturer shall provide published product Quality Standards detailing the International Standards used for testing.

4.5 Inspection

- 4.5.1 Inspection procedures shall be carried out within the Manufacturer's plant under ISO 9001:2015 Quality Management System.
- 4.5.2 Finished sheet shall be inspected for coating thickness using an approved instrument for a measurement range of 0-500µm.

- 4.5.3 The instrument shall have a valid calibration record and shall be regularly checked against Manufacturer's approved calibration standard.
- 4.5.4 The thickness of the glass on the inside surface of every sheet shall be maintained in the range from 200-360 μm .
- 4.5.5 The thickness of the glass on the outside surface of every sheet shall be maintained in the range 150-360 μm .
- 4.5.6 Sheets having a glass thickness outside of these ranges shall be rejected.
- 4.5.7 The outside surface of all sheets shall be inspected visually under good daylight (or equivalent lighting) for defects in the glass coating.
- 4.5.8 Any sheets having visible defects larger than 1mm shall be rejected. Any sheet having more than three visible defects per m^2 of the total sheet area shall be rejected.
- 4.5.9 Any visible defects on the outside surface of accepted sheets shall be repaired using repair material approved by the Manufacturer for this purpose and applied according to the repair materials Manufacturer's instructions.
- 4.5.10 The inside sheet surface shall be inspected using a high voltage tester approved by the Manufacturer for this purpose and used in accordance with Test A of EN 1430.
- 4.5.11 Inspection shall be carried out on every sheet and any sheet having any discontinuity shall be rejected.
- 4.5.12 No factory touch-ups or repairs shall be permitted on any inside surface discontinuity found during inspection.
- 4.5.13 The tester shall have an accuracy of $\pm 1\%$ such that the voltage at the test probe and test voltage of 700volts shall be used. The tester shall have a valid calibration record.
- 4.5.14 Only finished sheets with zero glass continuity defects on the inside surfaces shall be released for packing.
- 4.5.15 An owner's representative may be present during these inspection procedures at their own cost.

4.6 Packing

- 4.6.1 All finished sheets shall be handled within the manufacturing plant using magnetic or suction pads.
- 4.6.2 All approved sheets shall be protected from damage prior to packing for shipment.

- 4.6.3 All sheets shall be packed with a suitable membrane between the sheets.
- 4.6.4 Individual stacks of sheets shall be wrapped in a specified heavy duty plastic and steel banded to special pallets built to the radius of the tank sheets where necessary. This procedure eliminates contact movement of finished sheets during shipment.
- 4.6.5 Transportation of finished products shall be by dedicated hauler.

5. ERECTION

- 5.1 Field erection of the Glass-Fused-to-Steel, bolted steel tank shall be in accordance with the procedures outlined in the Manufacturer's Construction Guide.
- 5.2 Field erection shall conform to Occupational Safety Standard for erection and should be undertaken by a qualified tank erector certified by the tank manufacturer.
- 5.3 Leveling and circularity of the first ring of sheets shall be required. The maximum level differential within the ring shall not exceed 2mm, nor exceed 1mm within any 3m length.
- 5.4 Particular care shall be taken in handling and bolting of the tank sheets and members to avoid abrasion of the coating system. All surface areas may be visually inspected by the Engineer during construction and prior to liquid tests.

6. APPURTENANCES

The ancillary items of equipment should be installed. They may include, but are not restricted to the following items:

6.1 Vertical Ladder

6.2 Inside Tank Ladder

- 6.2.1 An internal ladder shall be installed below the roof hatch and shall be fabricated in stainless steel or FRP/GRP materials.

6.3 Shall Access Manway

- 6.3.1 One hot dip galvanized circular manway having an opening size of 800mm diameter shall be provided in the middle of the tank sheet clear of any vertical and horizontal bolt seams. The manway shall include a reinforcing frame and cover plate with hinged support for cover removal. The manway cover plate shall be sealed with an approved gasket system.

6.4 Inlet and Outlet Connections

- 6.4.1 All hot dip galvanized inlet, outlet and overflow connections shall conform to the sizes specified on the submittal drawings and shall be located so as to avoid vertical and horizontal bolt seams. Positions shall be agreed between the Engineer and the Authorized Tank Distributor.
- 6.4.2 Connection sizes shall be as follows unless otherwise changed on site modification:
- | | |
|--------------------|----------------|
| a. Inlet flange | 150mm diameter |
| b. Outlet flange | 200mm diameter |
| c. Overflow flange | 200mm diameter |
| d. Drain pipe | 200mm diameter |
- 6.4.3 Where connections are shown to pass through tank sheets, these shall be pre-cut by tank Manufacturer during manufacture.
- 6.4.4 When necessary openings may be field located, saw cut, (acetylene torch cutting, grinding or welding is not permitted) and shall utilize an interior and exterior flange assembly.
- 6.4.5 Polyurethane sealant shall be applied on any cut sheet edges or bolt connections.

7. FIELD TESTING

7.1 Leak Test

- 7.1.1 Following completion of erection, low voltage electrical testing and cleaning of the tank, (and making due allowance for full curing of the sealants) the structure shall be tested for liquid tightness by filling to its overflow elevation for a 24 hour period.
- 7.1.2 Any leaks disclosed by this testing shall be corrected by the erector in accordance with the Manufacturer's recommendations.
- 7.1.3 Water required for testing shall be furnished by the owner at the time of tank erection completion at no charge to the Authorized Tank Distributor. Disposal of test water shall be the responsibility of the Owner.
- 7.1.4 Labour and equipment necessary for tank testing shall be included in the price of the tank. Upon satisfactory completion of the 24 hours hydraulic leak test the Engineer shall sign the Manufacturer's Certificate of Satisfaction issued by the Authorized Tank Distributor.

8. CONCRETE SLAB

- 8.1 The tank shall be constructed of reinforced concrete. Fill under the floor/footing shall be compacted and tested to a minimum of 95% of proctor for this purpose.
- 8.2 Reinforced concrete floors shall include an embedded factory coated glass-fused to steel starter sheet ring to accommodate future expansion with minimum of 5" embedment depth per the manufacturer's design and accordance with AWWA D103.
- 8.3 The tank foundation and floor slab with embedded starter sheet shall be constructed by the tank supplier using manufacturer trained personnel regularly engaged in this type of tank construction.
- 8.4 There shall be one percent (1%) slope of the finished flooring from the side of the tank to the location wherein the sump and drain pipe will be installed.
- 8.5 Leveling of the starter ring shall be required and the maximum differential elevation within the ring shall not exceed one-sixteenth (1/16) inch within any ten (10) feet of length. Any leveling plate assembly consisting of two anchor rods and a slotted plate shall be used to secure the starter ring, prior to encasement in concrete.
- 8.6 Two water stop seals made of a butyl rubber elastomer special for this application shall be placed on the inside surface of the starter ring below the concrete floor line. One bentonite impregnated water seal shall be placed below the butyl rubber seal. These materials shall be installed as specified by the tank manufacturer.

9. CONCRETE FOUNDATION (Tanks supported on concrete slabs)

- 9.1 The tank foundation shall be designed by the contractor to safely sustain the structure and its dead and live loads. The weight of the foundation plus the weight of the soil directly above the foundation shall be sufficient to resist the maximum net uplift occurring with the tank empty and the specified wind load blowing in a direction causing the greatest net uplift on the foundation. The size of the foundation shall be such that the allowable soil bearing capacity is not exceeded when the following load combinations of loads are applied.
- dead weight of the foundation
 - dead weight of all permanent construction and fittings including roof
 - proper proportion of the dead weight of the structure
 - proper proportion of the water load (weight of all liquid when tank is filled to top capacity level)
 - proper proportion of the wind load
 - proper proportion of earthquake load
- 9.2 Tank footing design shall be based on an assumed soil bearing capacity of ____psf for the purpose of this bidding. Actual soil bearing capacity of the tank site should be verified by the winning bidder utilizing the expertise and recommendation of a licensed Structural Engineer.

9.3 All designs shall be based on the latest edition of the National Structural Code of the Philippines and shall conform to the 1997 Uniform Building Code requirements. The floor slab thickness shall be a minimum of 100mm (4 inches).

10. TANK OPERATION

10.1 Combination of “Fill and Draw” and “Float” System

10.1.1 Minimum Discharge Pressure – 45 psi

10.1.2 Volumetric Flow Rate (Q) - 100 cu.m./hr.

11. DISINFECTION

11.1 Polyurethane Sealants

11.1.1 Disinfection shall not take place until the polyurethane joint sealant is fully cured (10 to 12 days @ 21°C 50% Relative Humidity).

11.1.2 The tank shall be disinfected for use by chlorination in accordance with Method 3 of ANSI/AWWA C-652-11 (Method 3) as amended by the Manufacturer.

12. INSPECTION AND MAINTENANCE

12.1 Inspections and Maintenance should be in accordance with the Manufacturer’s Inspection and Maintenance manual.

Technical Documents in Compliance to Specifications:

- 1.1. Manufacturer’s **Distributorship Contract Agreement.**
- 1.2. **ISO 9001:2015 Certificate** as required by section 1.2.2.
- 1.3. **Certificate of Conformity to ISO 28765:2008-** Vitreous and Porcelain Enamels Design of Bolted Steel Tank for plate and sheet materials, design and Fabrication of the sectional tank as required by Section 2.1.1 authenticated by Philippine Consul or the Office of the Local Chamber of Commerce within the manufacturer’s country of origin.
- 1.4. **Statement of minimum Design Life** and minimum expected service life of the tank as required by section 2.1.1 authenticated by Philippine Consul or the Office of the Local Chamber of Commerce within the manufacturer’s country of origin.
- 1.5. **NSF Certificate** authenticated by Philippine Consul or the Office of the Local Chamber of Commerce within the manufacturer’s country of origin.

- 1.6. **Certificate of Conformity to Straight Seam Connection** and should submit details of lap connection. Such Certificate of Conformity should be authenticated by the Tank Manufacturer.
- 1.7. Complete Manufacturer's **Original Products and Technical Brochures** officially published Authenticated by Manufacturer.
- 1.8. Manufacturer's **Product Quality Standards including flow chart fabrication** detailing International Standards used for Manufacturing and Sheet Coating Procedure and Process authenticated by Philippine Consul or the Office of the Local Chamber of Commerce within the manufacturer's country of origin.
- 1.9. **Tank Erection and Construction Guide** issued by Tank Manufacturer.
- 1.10. Valid and Current **Certification of Conformity and Competence** as a Skilled and Specialized Tank Erector from Tank Manufacturer authenticated by Philippine Consul or the Office of the Local Chamber of Commerce within the manufacturer's country of origin.
- 1.11. Bidder should submit **Certification of Conformity from the Sealant Manufacturer** that the sealant to be use for the tank comply with the requirement of ANSI/AWWA C-652-11 and resistant 50ppm Chlorine concentration during disinfection.
- 1.12. Valid Local Water Utilities Administration (LWUA) Accreditation Certificate of the proposed Glass- Fused- to- Steel Bolted Water tank.

Representative's Consent. In the event the Procuring Entity's Representative determines that such proposed deviations do not ensure substantially equal or higher quality, the Contractor shall comply with the standards specified in the documents.

INSTALLATION OF ELECTROMECHANICAL EQUIPMENT AND BOOSTER PUMP ASSEMBLY

A. Booster Pump System

1. Two (2) Units Booster Pump 20HP (Grundfos or its approved equivalent)
2. Two (2) Assy Variable Frequency Drive (VFD), 3 phase, 230 volts, 60 hz, housed in explosion proof NEMA enclosure (Grundfos or its approved equivalent)

B. 150mm Ø Discharge line complete with all accessories such as Gate Valves, Flowmeter, Sleeve Type Coupling, Check Valves, etc.

1. Gate Valves, Check Valves, Butterfly Valves-AVK or approved equivalent
2. Sleeve Type Coupling-Concord Metals, Philippine Valve or approved equivalent
3. Flexible Rubber Coupling- AVK or approved equivalent
4. Flowmeter- MEHCO or approved equivalent

INSTALLATION OF ONE (1) THREE (3) -PHASE DISTRIBUTION LINE

A. Three (3) units 25KVA Transformer

CONSTRUCTION OF PUMP HOUSE, SITE DEVELOPMENT AND PERIMETER FENCE

A. 3m x 8m Pump House (Conservatively Finished) with:

1. Steel Trusses
 2. Rib type roofing
 3. Ceramic floor tiles
 4. Wooden Door Panel
 5. Aluminum Awning Windows and Aluminum Fixed Windows
 6. Fiber Cement Ceiling
 7. Painted Wall Finish
 8. Installed 1 unit 1HP Aircon at the Control Room
 9. Comfort Room (*1.5 x2 meters*) *for personal use*
- All civil works must be compliant with the National Building Code of the Philippines.

B. Perimeter Fence

1. 6" CHB Wall Tooled Joint Finish
2. Wire mesh on 50mm GI Pipe Frame (Sched. 40)

C. Site Development and Landscape

SUBMITTAL/S:

- a. Architectural Plans
- b. Structural Plans
- c. Sanitary Plans
- d. Electrical Plans
- e. Perspective Plan
- f. Drainage Layout Plan
- g. Water Supply Plan (Pump Station and other Appurtenances)

Narrative Technical Specifications

- a. Structural Technical Specifications
- b. Electrical Technical Specifications
- c. Sanitary Technical Specifications

Design Analysis/Calculations

- a. Structural Design

- b. Sanitary Design
- c. Electrical Design

C. PROJECT COST ESTIMATES INCLUDES THE QUANTITIES AND COST CALCULATIONS

The bidders shall submit the quantities and cost of the different types of works to be carried out in accordance with DPWH Department Order No. 197 series of 2016 dated October 7, 2016. In particular, the quantities and cost of each work item shall be calculated and a bill of quantities shall be prepared.

The bidders shall draw up a unit price analysis for each of the main paywork items.

The unit price of each of the main work pay items shall include:

The unit price of each of the main work pay items shall include:

I. Cost of the Preliminary and Detailed Architectural and Engineering Design – at least 3% of the Project Cost in accordance NEDA guidelines

II. Construction Cost of the Project;

A. The **Direct Cost** are the following:

A.1. **Cost of Materials** to be used in doing the work item called for, which shall include the following:

A.1.1 Cost of source, including processing, crushing, stockpiling, loading, royalties, local taxes, construction and/or maintenance of haul roads, etc.

A.1.2 Expenses for hauling to project site.

A.1.3 Handling expenses

A.1.4 Storage

A.1.5 Allowance for waste and/or losses, not to exceed 5% of materials requirement.

A.2. **Cost of Labor:**

A.2.1 Salaries and wages as authorized by the Department of Labor and Employment

A.2.2 Fringe benefits, such as vacation and sick leaves, benefits under the workmen's Compensation Act GSIS and SSS contribution, allowances, 13th month pay, bonuses etc.

A.3 **Equipment Expenses:**

A.3.1 Rental of equipment which shall be based on the prevailing "Associated Construction Equipment Lessors, Inc." (ACEL) rental rates approved for use by the DPWH (Presently it is the 2014 ACEL Rates). Rental rates of equipment not indicated in the ACEL booklet shall be taken from the rental rates prepared by the Bureau of Equipment. For simplicity in computation, the operated rental rates are preferred over the bare rental rates as the former includes operator's wages, fringe benefits, fuel, oil, lubricants and equipment maintenance. The make, model and capacity of the equipment should be indicated in the detailed unit cost analysis.

A.3.2 Mobilization and demobilization, shall be treated as a separate pay item. It shall be computed based on the equipment requirements of the project stipulated in the proposal and contract booklet. In no case shall mobilization and demobilization exceed 1% of the Estimated Direct Cost (EDC) of the civil works items.

B. The **Indirect Cost** shall consist of the following:

B.1 **Overhead Expenses** - ranges from 7 - 11% of the EDC, which includes the following:

B.1.1 Engineering and Administrative Supervision.

B.1.2 Transportation allowances.

B.1.3 Office Expenses, e.g., for office equipment and supplies, power and water consumption, communication and maintenance.

B.1.4 Premium on Contractor's All Risk Insurance (CARL).

B.1.5 Financing Cost.

- (a) Premium on Bid Security
- (b) Premium on Performance Security
- (c) Premium on Surety for Advance Payment
- (d) Premium on Warranty Bond (one year)

B.2 **Contingencies** - ranges from 0.5 - 3% of the EDC. These include expenses for meetings, coordination with other stakeholders, billboards (excluding Project Billboard which is a pay item under the General requirements), stages during ground breaking & inauguration ceremonies and other unforeseen events.

B.3 **Miscellaneous Expenses** - ranges from 0.5 - 1% of the EDC. These include laboratory tests for quality control and plan preparation.

B.4 **Contractor's Profit Margin** – shall be 8% of EDC: for projects above Php5Million and 10% for projects Php5Million and below.

B.5 **VAT Component** - shall be 5% of the sum of the EDC, OCM and Profit.

B.6 The following items shall not be subjected to OCM and Profit mark-up:

B.6.1 Mobilization and demobilization

B.6.2 Provision of Service Vehicle

B.7 The following non-civil works items shall not be subjected to OCM mark-up:

B.7.1 Field/Laboratory Office & Living Quarters (Rental Basis)

B.7.2 Furnishing of Furniture, Laboratory Equipment, Survey Equipment and Consumables

B.7.3 Assistance to the Engineers

B. 7.4 Photographs

B.7.5 Health and Safety

B.7.6 Traffic Management

B.7.7 Environmental Compliance

B.7.8 Communication Equipment, etc.

NOTE: For the percentage to be used for Nos. B.1, B.2 and B.3, see OCM (Overhead, Contingencies and Miscellaneous) column in the tabulation below.

ESTIMATED DIRECT COST (EDC)	INDIRECT COST % FOR OCM AND PROFIT		TOTAL INDIRECT COST % FOR OCM AND PROFIT
	OCM (% OF EDC)	PROFIT (% OF EDC)	
Up to P5 Million	15	10	25
Above P5M up to P50M	12	8	20
Above P50M up to P150M	10	8	18
Above P150M	8	8	16

D. CONTRACT DOCUMENTATION PHASE

The Contract documentation phase shall be governed by R.A. 9184 “Government Procurement Reforms Act and its Revised Implementing Rules and Regulations and Provisions in the Bid Documents.

E. CONSTRUCTION PHASE

1. Permits and Clearances

The Contractor shall defray all expenses necessary and incidental to secure the Environmental Clearance Certificate (ECC) and other permits as may be required for the construction.

2. Temporary Structures & Facilities

The contractor shall provide and maintain the following:

- a. Temporary office and/or quarters for the contractor's project team personnel with water, light, telephone and toilet facilities.
- b. Temporary bunkhouse/quarters for the contractor's workforce complete with toilet and bath facilities.

3. Mobilization

The contractor shall mobilize all the required project team personnel, equipment, tools and manpower with the required skills and insufficient number as may be necessary for his efficient undertaking of the project.

4. Construction Proper

The contractor shall prosecute all the works under the contract in strict accord with standard engineering methodology and procedures and shall be responsible for maintaining cleanliness and orderliness in the project area throughout the duration of the contract.

5. Electrification

The contractor shall pay to the local power utility the cost of providing the additional electrical distribution facilities for the project.

6. Material Testing

All material testing shall be conducted by the accredited testing laboratories.

7. As-built plans

The contractor shall cause the preparation and submission of as-built plans duly signed and sealed by all concerned parties involved in the construction..

V. BIDDING MECHANICS AND IMPLEMENTATION PHASE:

Bidding Mechanics and the Implementation Phase shall be governed by the R.A. 9184 "Government Procurement Reforms Acts" and its Revised Implementing Rules and Regulations as well as Bid Documents.

Section VII.

Drawings

*Drawings to be provided by the bidder as the project states “**Design and Build of 500 Cu. M. Ground Reservoir with Booster (1+1) and Pump Station and Other Appurtenances.**” Drawings/designs will be evaluated by the Design and Build Committee together with the Technical Working Group to verify if the requirements and specifications for the reservoir will be complied.*

Section VIII.

Bill of Quantities

Bill of Quantities

Name of Project: **Design And Build of 500 Cu. M. Ground Reservoir with Booster and Pump Station and Other Appurtenances at Brgy. Naguilayan, Binmaley, Pangasinan**

Owner: **Binmaley Water District**

Contractor: _____

Contractor's Address: _____

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT COST	TOTAL COST
I	MOBILIZATION/DEMobilIZATION OF PERSONNEL AND EQUIPMENT TO JOBSITE, PROVISION FOR CONSTRUCTION SAFETY, HEALTH HAZARDS, UTILITIES (ELECTRICITY, WATER, ETC.), TEMPORARY SITE FACILITIES AND OTHER GENERAL REQUIREMENTS	lot	1.00		
				SUBTOTAL I =	
II	DESIGN PREPARATION FOR ELECTRO-MECHANICAL COMPONENT AND GROUND RESERVOIR WITH SOIL INVESTIGATION AND HYDRAULIC ANALYSIS OF THE SYSTEM	lot	1.00		
				SUBTOTAL II =	
III.	ELECTRO-MECHANICAL EQUIPMENT AND PUMPHOUSE				
III.1	Construction of Pump House and Booster Station	lot	1.00		
III.2	One (1) Assembly Booster System	lot	1.00		
III.3	150 mm Ø Discharge Line (complete with all accessories such as Gate Valves, Flowmeter, Sleeve Type Cupling, Check Valve, etc.)	lot	1.00		
				SUBTOTAL III =	
IV.	INSTALLATION OF ONE (1) THREE (3) -PHASE DISTRIBUTION LINE- 3 units 25KVA Transformer	lot	1.00		

				SUBTOTAL IV =	
V.	500 CU. M. GROUND RESERVOIR				
V.1	Earthworks (Site Clearing, Excavation and Backfill) and Reinforced Concrete Foundation	lot	1.00		
V.2	Ground Reservoir (500 cu.m. capacity with 150mm Ø Piping and Valves Facilities)	lot	1.00		
V.3	Misc. Metal Works (Circular Stairs, Railings and Water Level Indicator), Painting Works and other Misc. Works	lot	1.00		
V.4	Site Development and Perimeter Fence	lot	1.00		
				SUBTOTAL V =	
VI.	TESTING, COMMISSIONING, START-UP OPERATION AND DEMOBILIZATION OF PERSONNEL AND EQUIPMENT FROM THE JOBSITE	LS	1.00		
				SUBTOTAL VI=	
				TOTAL COST=	

AMOUNT IN WORDS: _____

Submitted by:

(NAME OF AUTHORIZED REPRESENTATIVE)

(DESIGNATION)

(COMPANY)

Section IX.

Checklist of Technical and Financial Documents

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class “A” Documents

Legal Documents

- ☐ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);
or
- ☐ (b) Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document;
and
- ☐ (c) Mayor’s or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas;
and
- ☐ (e) Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).

Technical Documents

- ☐ (f) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
- ☐ (g) Statement of the bidder’s Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules;
and
- ☐ (h) Philippine Contractors Accreditation Board (PCAB) License;
or
Special PCAB License in case of Joint Ventures;
and registration for the type and cost of the contract to be bid; **and**
- ☐ (i) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;
or
Original copy of Notarized Bid Securing Declaration; **and**
- ☐ (j) Project Requirements, which shall include the following:
 - ☐ a. Organizational chart for the contract to be bid;
 - ☐ b. List of contractor’s key personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data;
 - ☐ c. List of contractor’s major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**
- ☐ (k) Original duly signed Omnibus Sworn Statement (OSS);

and if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

- ☐ (l) The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; **and**
- ☐ (m) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

Class "B" Documents

- ☐ (n) If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence;
or
duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

II. FINANCIAL COMPONENT ENVELOPE

- ☐ (o) Original of duly signed and accomplished Financial Bid Form; **and**

Other documentary requirements under RA No. 9184

- ☐ (p) Original of duly signed Bid Prices in the Bill of Quantities; **and**
- ☐ (q) Duly accomplished Detailed Estimates Form, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; **and**
- ☐ (r) Cash Flow by Quarter.

