



VICTORIAS CITY WATER DISTRICT

Quirino St., Victorias City Negros Occidental
Telefax: (034) 399-3554, Tel.No. (034) 399-2865
Website: victoriacitywd.gov.ph
Email: victoriacitywd@yahoo.com.ph

**“DESIGN AND BUILD CONTRACT”
FOR THE
DESIGN AND CONSTRUCTION OF
200 CU.M. STEEL-BOLTED-GLASS-FUSED
GROUND RESERVOIR
FOR
VICTORIAS CITY WATER DISTRICT**

**BRGY. XIII - VILLA VICTORIAS
VICTORIAS CITY, NEGROS OCCIDENTAL**

***PROVISION OF WATER SUPPLY TO NHA PERMANENT HOUSING
PROGRAM IN YOLANDA AFFECTED AREAS***

**Sixth Edition
April 2021**

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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



VICTORIAS CITY WATER DISTRICT

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Telefax: (034) 399-3554, Tel.No. (034) 399-2865
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Invitation to Bid for the

“DESIGN AND BUILD CONTRACT” FOR THE

DESIGN AND CONSTRUCTION OF 200 CU.M. STEEL-BOLTED-GLASS-FUSED GROUND RESERVOIR FOR VICTORIAS CITY WATER DISTRICT

*(Provision of Water Supply to NHA Permanent Housing Program
in Yolanda Affected Areas)*

1. The **VICTORIAS CITY WATER DISTRICT (VCWD)**, through the *RA No. 10633 (FY 2014 GAA) and R.A. No. 10717 (FY 2017 GAA)* to finance the water supply needs of NHA Permanent Resettlement Areas in Yolanda Affected Water Districts and Municipalities from the Government of the Republic of the Philippines intends to apply the sum of **Three Million Pesos (₱ 3,000,000.00)** being the Approved Budget for the Contract (ABC) to payments under the contract for ***Design and Build Contract for the Construction Of 200 cu.m. Steel-Bolted-Glass-Fused Ground Reservoir for Victorias City Water District [VCWD-2021-006]***. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The **VCWD** now invites bids for the above Procurement Project. Completion of the Works is required ***Ninety (90) Calendar Days***. 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 **BAC Secretariat, VCWD, Quirino St., Victorias City, Negros Occidental** and inspect the Bidding Documents at the address given below from **9:00 A.M. – 4:00 P.M.**
5. A complete set of Bidding Documents may be acquired by interested bidders on **April 15, 2021 until May 21, 2021** from given address and website 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 ***Five Thousand Pesos Only (₱5,000.00)***. The Procuring Entity shall allow the bidder to present its proof of payment for the fees by facsimile, or through electronic means.

6. The **VCWD** will hold a Pre-Bid Conferenceⁱ on **April 26, 2021** at **2:00 P.M.** at the BAC Conference Room, VCWD, Quirino St., Victorias City, Negros Occidental, and/or through videoconferencing/webcasting *via Zoom*, which shall be open to prospective bidders.
7. Bids must be duly received by the BAC Secretariat on or before 1:30 P.M. on **May 21, 2021**:
 - (i) manual submission at the office address as indicated below; and
 - (ii) online or electronic submission as indicated below.

Note: 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 16.
9. Bid opening shall be on 2:00 P.M. on **May 21, 2021** at the given address below. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
10. The complete schedule of activities is listed, as follows:

Activities	Schedule
1. Advertisement	April 15, 2021 - May 21, 2021
2. Issuance of the Bidding Documents	April 15, 2021 until 1:00 P.M. of May 21, 2021
3. Pre-Bid Conference	April 26, 2021 at 2:00 P.M.
4. Deadline for the Pre-qualification and Submission of Bids	May 21, 2021 at 1:30 P.M.
5. Opening of Bids	May 21, 2021 at 2:00 P.M.
6. Evaluation of Bids	May 24, 2021
7. Post-qualification of Bids	June 3, 2021

11. The **VCWD** 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.
12. For further information, please refer to:

Bids and Awards Committee Secretariat
VICTORIAS CITY WATER DISTRICT
 Quirino St., Victorias City, Negros Occidental
 Telephone No. (034) 399-2865 Telefax No. (034) 399-354
 Email address: **victoriacitywd@yahoo.com.ph**

13. You may visit the following websites:

For downloading of Bidding Documents:

- <https://notices.philgeps.gov.ph/>
- <https://victoriacitywd.gov.ph/>

LINO CORNELIO CECILIO T. BASCUG
Bids and Awards Committee
Chairperson

Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, **Victorias City Water District** invites Bids for the ***“Design and Build Contract” for the Design and Construction of 200 cu.m. Steel-Bolted-Glass-Fused Ground Reservoir for Victorias City Water District***, with Project Identification Number **VCWD-2021-006**.

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 *RA No. 10633 (FY 2014 GAA) and R.A. No. 10717 (FY 2017 GAA)* in the amount of *Twenty-three Million One Hundred Forty-Five Thousand Eight Hundred Thirty-One Pesos (₱ 23,145,831.00)*.

2.2. The source of funding is NGA, the General Appropriations Act or Special Appropriations.

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 of 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 allowed. The portions of Project and the maximum percentage allowed to be subcontracted are indicated in the **BDS**, which shall not exceed fifty percent (50%) of the contracted Works.

- 7.1. The Bidder must submit together with its Bid the documentary requirements of the subcontractor(s) complying with the eligibility criteria stated in **ITB** Clause 5 in accordance with Section 23.4 of the 2016 revised IRR of RA No. 9184 pursuant to Section 23.1 thereof.
- 7.2. The Supplier may identify its subcontractor during the contract implementation stage. Subcontractors identified during the bidding may be changed during the implementation of this Contract. Subcontractors must submit the documentary requirements under Section 23.1 of the 2016 revised IRR of RA No. 9184 and comply with the eligibility criteria specified in **ITB** Clause 5 to the implementing or end-user unit.

- 7.3. Subcontracting of any portion of the Project does not relieve the Contractor of any liability or obligation under the Contract. The Supplier will be responsible for the acts, defaults, and negligence of any subcontractor, its agents, servants, or workmen as fully as if these were the Contractor's own acts, defaults, or negligence, or those of its agents, servants, or workmen.

8. 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 *Victorias City Water District, Quirino St., Victorias City, Negros Occidental* and/or through videoconferencing/webcasting} 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. Preliminary Conceptual Design Plans in accordance with the degree of details specified by the procuring entity; as stated in the **BDS** and Section VII of the Bidding Documents.
- 10.5. Conformity with the performance specifications, as stated in the **BDS** and Section VII of the Bidding Documents.

- 10.6. A List of Design and Construction Personnel, (e.g., Structural Engineer, Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data/curriculum vitae and valid licenses issued by the Professional Regulatory Commission (PRC) for design professionals shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.
- 10.7. 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 tradable 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 **September 18, 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 as specified in the **BDS**.

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 <u>“design and build contract” for water supply facilities and related works.</u>
7.1	Subcontracting is allowed for the <u>design portion</u> of the “Design and Build” contract. The Designer/Engineering Firm should have at least designed a similar project equivalent to 50% of the cost of ABC.
10.3	<p>PCAB CONTRACTOR’S LICENSE</p> <p>LICENSE PARTICULARS: Principal Classification: General Engineering Other Classification: Water Supply Category (Minimum Requirement): D</p> <p>REGISTRATION PARTICULARS: Kind of Project: Reservoir Respective Size Range: SMALL B</p>
10.4	<p>The Bidder shall submit Preliminary Conceptual Design Plans for the Glass Fused to Steel Bolted Tank (<i>both hard print and electronic/soft copy</i>) the degree of details as provided herein:</p> <ol style="list-style-type: none"> a. Site Development Plan with Vicinity Map (also reflect the existing structures, pipe layout, drainage layout, access roads other necessary information) b. Fully Rendered Exterior Perspective at least 2 views showing inlet/outlet and overflow valve box (colored) c. Tank Details <ol style="list-style-type: none"> 1. Tank Layout w/ Dimensions 2. Tank profiles along inlet/outlet line and along drainage/overflow line 3. Inlet and outlet pipe details (fill and draw operation) 4. Valve Box Details 5. Under drain (for foundation) and sump pit details 6. Access Doors/Manways and Hatch details including Roof/Air Ventilation 7. Water Level Indicator System Details including water level relay (ultrasonic and mechanical water level indicator) 8. Miscellaneous Details 9. Cathodic Protection Details d. Foundation Details w/ Dimensions e. Site Drainage, Pipelaying and Road Details
10.5	<p>The bidder shall submit the following documents to conform with the performance specifications, as stated in Sections VII of the Bidding Documents:</p> <ol style="list-style-type: none"> 1. Complete Manufacturer’s Technical Brochures. 2. Manufacturer’s Certificate of Distributorship. 3. ISO Certification.

	<p>4. NSF-61 Certification, certified true copy by the tank manufacturer (tank).</p> <p>5. NSF-61 Certification, certified true copy by the sealant manufacturer (sealant).</p> <p>6. Certificate issued by the Tank Manufacturer that the bidder's personnel/installer is qualified to install, commission and test the product.</p> <p>7. Brochure describing glass-fused-to-steel coatings, certified true copy by the tank manufacturer.</p>																																																															
10.6	<p>The key personnel must meet the required minimum years of experience set below:</p> <p style="text-align: center;">Minimum Contractor's Team Composition/Manpower Network</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>DESIGN TEAM</u></th> <th style="text-align: center;">Number</th> <th style="text-align: center;">Years of Experience</th> </tr> </thead> <tbody> <tr> <td>Project Manager</td> <td style="text-align: center;">1</td> <td style="text-align: center;">3</td> </tr> <tr> <td>Project Design Engineer (Civil/Structural)</td> <td style="text-align: center;">1</td> <td style="text-align: center;">3</td> </tr> <tr> <td>Project Engineer (Electro/Mechanical)</td> <td style="text-align: center;">1</td> <td style="text-align: center;">3</td> </tr> <tr> <td>Engineering Assistant/Draftsman</td> <td style="text-align: center;">1</td> <td style="text-align: center;">3</td> </tr> <tr> <td colspan="3"> <u>CONSTRUCTION TEAM</u></td> </tr> <tr> <td>Project Engineer</td> <td style="text-align: center;">1</td> <td style="text-align: center;">3</td> </tr> <tr> <td>Project Engineer (Civil Works)</td> <td style="text-align: center;">1</td> <td style="text-align: center;">3</td> </tr> <tr> <td>Project Engineer (Electro/Mechanical)</td> <td style="text-align: center;">1</td> <td style="text-align: center;">3</td> </tr> <tr> <td>Materials Engineer</td> <td style="text-align: center;">1</td> <td style="text-align: center;">3</td> </tr> <tr> <td>Environment, Health and Safety Officer</td> <td style="text-align: center;">1</td> <td style="text-align: center;">3</td> </tr> </tbody> </table> <p>Note: List of contractor's personnel <u>shall be submitted under oath and notarized.</u></p>	<u>DESIGN TEAM</u>	Number	Years of Experience	Project Manager	1	3	Project Design Engineer (Civil/Structural)	1	3	Project Engineer (Electro/Mechanical)	1	3	Engineering Assistant/Draftsman	1	3	 <u>CONSTRUCTION TEAM</u>			Project Engineer	1	3	Project Engineer (Civil Works)	1	3	Project Engineer (Electro/Mechanical)	1	3	Materials Engineer	1	3	Environment, Health and Safety Officer	1	3																														
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12	No further instructions.
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> <ul style="list-style-type: none"> a. The amount of not less than ₱ 60,000.00 (2% of ABC), if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; b. The amount of not less than ₱ 150,000.00 (5% of ABC), if bid security is in Surety Bond.
19.2	Partial bid is not allowed. The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.
20	<p>Only tax returns filed, and taxes paid through the Electronic Filing and Payments System (EFPS) shall be accepted.</p> <p><i>NOTE: The latest income and business tax returns are those within the last six months preceding the date of bid submission.</i></p>
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>The following additional contract documents relevant to the Project are required:</p> <ol style="list-style-type: none"> 1. <i>Construction Schedule and S-curve</i> 2. <i>Manpower Schedule</i> 3. <i>Equipment Utilization Schedule</i> 4. <i>Construction Safety and Health Program approved by the Department of Labor and Employment</i> 5. <i>PERT/CPM</i>

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

4.1. 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.

4.2. 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 Twenty Days (120) Calendar Days upon receipt of the formal Notice to Proceed.
4.1	The Procuring Entity shall give possession of all parts of the Site to the Contractor upon issuance of NTP.
6	None.
7.2	Five (5) years.
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>Fourteen (14) 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 <u>15% of the Contract Price/Amount.</u>
13	The amount of the advance payment is fifteen percent (15%) of contract price, recoupment of which shall be deducted from the Contractor's monthly billing (amount of advance payment multiply by % work accomplished).
14	Materials and equipment delivered on the site but not completely put in place shall be included for payment.
15.1	The "as built" drawings, and operating and maintenance manuals shall be submitted within thirty (30) days after the issuance of the Certificate of Final Acceptance/Project Completion.
15.2	Final Progress Payment will be withheld for failing to produce "as built" drawings and/or operating and maintenance manual.

Section VI. Specifications

TERMS OF REFERENCE (TOR)

Procurement and Implementation of the
Infrastructure Project for the
**DESIGN AND BUILD CONTRACT FOR THE DESIGN AND
CONSTRUCTION OF 200 CUBIC METERS STEEL-BOLTED-GLASS-
FUSED GROUND RESERVOIR
FOR
VICTORIAS CITY WATER DISTRICT**

I. BACKGROUND

The *Victorias City Water District* (VCWD) is seeking a suitable qualified candidate or firm to carry out the contract for the “DESIGN AND BUILD CONTRACT FOR THE DESIGN AND CONSTRUCTION OF 200 CUBIC METERS STEEL-BOLTED GLASS-FUSED GROUND RESERVOIR FOR VICTORIAS CITY WATER DISTRICT” utilizing the most appropriate method and technology.

The contractual arrangement to be used for this project is Design-and-Build Scheme (DBS). VCWD intends to apply the sum of *Three Million Pesos (₱ 3,000,000.00)* being the Approved Budget for the Contract (ABC) with an intended completion duration of One Hundred Twenty (120) Calendar Days upon receipt of the Notice to Proceed.

II. METHODOLOGY

- (a) Implement the project taking into consideration the communities and their landscape, and achieve enhanced environmental performance and comprehensive environmental compliance.
- (b) Stimulate the local economy by maximizing local business participation in implementing the project.
- (c) Maximize use of minority or local business enterprises.
- (d) Gender perspective
- (e) Engage communities and stakeholders to proactively participate in the project from planning stage up to implementation/construction stage.
- (f) Develop and implement an effective Quality Program.
- (g) Achieve swift commencement and timely completion of the project.
- (h) Provide cost-effective solutions and cost-containment methodologies
- (i) Increase Work Zone safety with engineering improvements and enhanced awareness through public information
- (j) Minimize life-cycle cost of the project.
- (k) Any additional project goals will be included in the Special Provisions.

Main Responsibilities of the Contractor - The Contractor shall be responsible for furnishing all labor, material, plant, equipment, services and support facilities for the following:

- (a) Design and Construction of structures in the Project components including utility relocations.
- (b) Project construction management including Health and Safety Measures as stated in Department of Public Works (DPWH) Order No.39 “Revised Construction Guidelines for the Implementation of Infrastructure Projects during the COVID-19 Public Health Crisis”.
- (c) Project-related Public Information activities.
- (d) Coordination with Project stakeholders, other contractors, and utility owners.
- (e) Design Quality of temporary structures.
- (f) Construction Quality and Workmanship.
- (g) Environmental permitting, resource agency consultations, mitigation and compliance monitoring.
- (h) Additional environmental investigations, documentations, and monitoring associated with or resulting from Contractor’s actions.
- (i) Maintenance and protection of traffic and access to properties (both temporary and permanent access).
- (j) Project safety and security.
- (k) Preliminary Engineering (PE), such as surveys and geotechnical investigations.
- (l) Harmful and hazardous materials remediation (design and construction)
- (m) Drainage and erosion control.
- (n) Construction waste disposal and handling.
- (o) Acquisition of required clearances, licenses, construction easements, and permits for the construction work, work sites, and storage areas, on or off site.
- (p) Ancillary Work, such as access roads, driveways, temporary fencing, relocation of drainage, work sites, and temporary works.
- (q) Location, acquisition, permits, and transportation for material.
- (r) Coordination and relocation of utilities and municipal drainage facilities (when required).
- (s) Site clearance and restoration.

- (t) Administration of the project during the contract period.
- (u) Implementation and administration of LWUA/Victorias City WD policy for construction work, as applicable. The Contractor will be required to plan, implement, and maintain a Quality Plan for the Work. The quality plan will detail how the Contractor will establish and operate its quality program management structure, independent from design and construction production, and document its procedures pertaining to all aspects of the work listed below. The quality plan will be established and maintained by the Contractor such that it provides an agency-auditable system that assures the Contractor complies with all contract requirements pertaining to the general areas of the construction work.

MINIMUM TEAM COMPOSITION / MANPOWER NETWORK:

DESIGN TEAM	Number	Years of Experience
Project Manager	1	3
Project Design Engineer (Civil/Structural)	1	3
Project Engineer (Electro/Mechanical)	1	3
Engineering Assistant/Draftsman	1	3

CONSTRUCTION TEAM	Number	Years of Experience
Project Manager	1	3
Project Engineer (Civil works)	1	3
Project Engineer (Electro/Mechanical)	1	3
Materials Engineer	1	3
Environment, Health and Safety Officer	1	3

III. PROJECT DESCRIPTION

This Project is a “*Design and Build*” Scheme contract and is a fixed lump sum cost and changes or variation orders will only be allowed if the changes in the design and construction requirements were not anticipated in the preparation of contract documents prior to contract signing and approval. The following guidelines shall govern in the approval for changes or variation orders for work items under the DBS (Ref. Annex” G” of the revised 2016 IRR of R.A. 9184):

This Design and Build Contract includes submission of site investigation reports, preparation of structural computation/analysis, preparation of detailed construction drawings/plans and submission of As-Built Plans. Contract Implementation for the Design and Build Scheme:

Contract Implementation for the Design and Build Scheme:

As a rule, contract implementation guidelines for the procurement of infrastructure projects shall comply with Annex “E” of the IRR of RA 9184, *as amended*. The following provisions shall supplement the procedures specified in Annex “E”.

1. No works shall commence unless the contractor has submitted the required documentary requirements and the procuring entity has given written approval. Work execution shall be in accordance with reviewed and approved documents.
2. The contractor shall be responsible for obtaining all necessary information as to risks, contingencies which may affect the works and shall prepare and submit all necessary documents specified by the procuring entity to meet all regulatory approvals as specified in the contract documents.
3. The contractor shall submit a detailed program of work within fourteen (14) calendar days after issuance of the Notice to Proceed (NTP) for approval by the procuring entity that shall include, among others:
 - a. The order in which it intends to carry out the work including anticipated timing for each stage of design/detailed engineering and construction;
 - b. Periods for review of specific outputs and any other submissions and approvals;
 - c. Sequence of timing for inspections and tests as specified in the contract documents;
 - d. General description of the design and construction methods to be adopted;
 - e. Number and names of personnel to be assigned for each stage of the work;
 - f. List of equipment required on site for each major stage of the work;
 - g. Description of the quality control system to be utilized for the project.
4. Any errors, omissions, inconsistencies, inadequacies or failure submitted by the contractor that do not comply with the requirements shall be rectified, resubmitted and reviewed at the contractor’s cost. If the Contractor wishes to modify any design or documents which has been previously submitted, reviewed and approved, the contractor shall notify the procuring entity within a reasonable period of time and shall shoulder the cost of such changes.
5. As a rule, changes in **design and construction requirements** shall be limited only to those that have not been anticipated in the contract documents prior to contract signing and approval. The following guidelines shall govern approval for change or variation orders:
 - a. Change Orders resulting from design errors, omissions or non-conformance with the parameters and the contract documents by the contractor shall be implemented by the contractor at no additional cost to the procuring entity.

- b. Provided that contractor suffers delay and/or incur costs due to changes or errors in the procuring entity's performance specifications and parameters, he shall be entitled to either one of the following:
 - i. an extension of time for any such delays under Section 10 of Annex "E"; or
 - ii. payment for such costs as specified in the contract documents, provided, the cumulative amount of the variation order does not exceed ten percent (10%) of the original contract price.
6. The contract documents shall include the manner and schedule of payment specifying the estimated contract amount and instalments in which the contract price will be paid.
7. The contractor shall be entitled to advance payment subject to the provisions of Section 4 of Annex "E".
8. The procuring entity shall define the quality control procedures for the design and construction in accordance with agency guidelines and shall issue the proper certificates of acceptance for sections of the works or the whole of the works as provided for in the contract documents.
9. The contractor shall provide all necessary equipment, personnel, instruments, documents and others to carry out specified tests.
10. All **design and builds projects** shall have a minimum Defects Liability Period of one (1) year after contract completion or as provided for in the contract documents. This is without prejudice, however, to the liabilities imposed upon the engineer/architect who drew up the plans and specification for a building sanctioned under Section 1723 of the New Civil Code of the Philippines.
11. The contractor shall be held liable for design and structural defects and/or failure of the completed project within the warranty periods specified in Section 62.2.3.2 of the IRR.

The project shall cover the detailed design, supply and construction of a 200 cubic meter usable capacity steel-bolted-glass-fused modular water tank pursuant to the contract drawings, technical specifications and Terms of Reference enclosed herein.

The Facility will be located within Brgy. XIII – Villa Victorias NHA Yolanda Resettlement Site. Infrastructure components are intended to interconnect all existing deepwells (Pumping Station 8, 9 & 10) to the resettlement site's distribution system has been partially completed which also includes provision of pumping facilities for the three existing deepwells (refer to contract drawings and technical specifications).

The facility will be located at Pumping Station 8, Villa Victoria Site 1. Provision for interconnection and by-pass connection to the existing deepwell and to resettlement site's distribution system have been carried out wherein the proposed steel-bolted glass-fused ground reservoir will operate in Floating-on-the-Line Scheme.

The acquisition and payment of all building and excavation permits, ECC, clearances and all other permit necessary in the project implementation shall be the responsibility of the contractor. The VCWD shall provide all assistance whenever necessary.

IV. CONCEPTUAL DESIGN / SPECIFICATIONS / PARAMETERS / OTHER REQUIREMENTS

A. SCOPE

1. Contractor shall conduct soil investigation to determine the soil bearing capacity of the site as guide in the design of the reservoir.
2. Tank footing design shall be based on the soil bearing capacity in which no case shall the specified bearing pressure exceed the soil bearing capacity that would cause intolerable settlements and impair the structural integrity of the tank.
3. Contractor shall prepare and submit Structural/Design Analysis of the reservoir. All designs shall be based on the latest edition of the National Structural Code of the Philippines.
4. The tank shell shall be made of glass fused to steel plate with glass fused to steel floors and appropriate concrete foundation.
5. The ground reservoir shall have the following features:
 - a. Manhole/Access Hatch Way w/ cover & lockable hatch
 - b. Inlet and Outlet pipes including controlling valves
 - c. Overflow and Drain pipes including valves
 - d. Underdrain system (for foundation), if necessary.
 - e. Air Vents
 - f. Mechanical Water Level Indicator (Aluminum)
 - g. Access Ladders (Inside & Outside).
 - Roof Openings/Holes including furnishing and installation of vertical stainless-steel ladder (Inside).
 - Galvanized Steel Staircase along tank wall with railing and platform (Outside)
 - h. 200mm Float Valve & Accessories.
 - i. Manufacturer's Nameplate shall list the tank serial number, tank diameter and height, and maximum design capacity. the nameplate shall be affixed to the tank exterior sidewall location approximately 2 meters from the grade elevation. the manufacturer's logo shall not be very large that it would appear like an advertisement.
 - j. Concrete Valve Boxes
6. Standard Requirement for the Steel Ground Reservoir
 - a. Tank shell shall be glass fused to steel plate
 - b. Glass Fused to Steel Floors
 - c. Designed to store "Clean & Potable" Water
 - d. Should be durable, long life
 - e. Stable Construction
 - f. Non-Leakage
 - g. Easy Assembly

B. DESIGN CRITERIA AND PARAMETERS:

1. Standard Design Codes and References

The following standard codes and references shall be used where applicable.

a) American Concrete Institute (ACI) Standards

ACI 318	-	Building code requirements for reinforced concrete structures
ACI 315	-	Manual of standard practice for details and detailing of concrete reinforcement
ACI 350	-	Environmental Engineering Concrete Structures

- b) Structural Design Manual Specifications
- c) National Structural Code of the Philippines (NSCP)
- d) Philippine National Standards (PNS)
- e) American Society of Testing and Materials (ASTM)
- f) Uniform Building Code (UBC)
- g) Steel Construction Manual (AISC)
- h) Portland Cement Association (PCA) Concrete Information

2. Design Load

a) Dead Load (DL)

Concrete	24 KN /m ³ (150 pcf)
Steel	78 KN/m ³ (490 pcf)
Water	9.81 KN/m ³ (62.4 pcf)

b) Live Load (LL)

Roof with slope 3 to 1 or less	1.44 KN/m ²
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c) Wind Load (WL)

Wind load shall be considered in the design in accordance with NSCP. Wind shall be assumed to come from any horizontal direction. no reduction in wind pressure shall be taken for the shielding effect of adjacent structures.

where: $P = c_e c_q q_s I$

P = design wind pressure, kPa

For areas located along the typhoon belt:

$P = 300 \text{ kph (minimum)}$

c_e = combined height, exposure and gust factor coefficient

= pressure coefficient for the structure or portion of structure under consideration

c_q = wind stagnation pressure at a height of 10 meters

q_s = importance factor as set forth by occupancy category

d) Earthquake Load (EL)

Design base shear (in accordance with NSCP)

$$V = \frac{ZIC}{R_w} \times W$$

Where:

Z = Seismic zone factor

I = importance factor based on standard occupancy

R_w = numerical coefficient based on global ductility capacity of lateral force-resisting frame

W = the total seismic dead load

C = numerical coefficient as determined from the formula

$$= \frac{1.25s}{t^{2/3}} \leq 2.75$$

s = site coefficient for the given soil characteristics

t = fundamental period of vibration, in seconds, of the structure for the direction under consideration

$$= c_t (h_n)^{3/4}$$

c_t = 0.050 (for all buildings as set forth by NSCP)

h_n = Height above the base to level n in meters

Seismic provisions of UBC 97 Edition shall also be verified for ground motion producing structural response and forces at any horizontal direction.

Basic allowable stresses are increased by 33% for combined DL+LL+EL OR DL+LL+WL whichever is greater wall design.

e) Hydrostatic and Hydrodynamic Loads

All hydraulic structures shall be designed for hydrostatic forces imposed by the fluid contained in these structures. All hydraulic structures shall be designed for hydrodynamic forces using the ground acceleration and the response spectra provided by the geotechnical report.

f) Loadings shall be calculated for different conditions. As a minimum, the following load combinations shall be determined:

Tank full: Hydrostatic loading plus dead load, or hydrodynamic loading plus seismic forces due to dead loads, or hydrodynamic loading plus seismic forces due to dead loads plus live load.

Tank Empty: Static soil pressure (active or at rest) plus dead load or seismic soil pressure plus seismic forces due to dead loads plus permanent surcharge.

3. Minimum Material Strength

- a) Concrete, f_c' 21 MPa (3,000 psi) or as specified. Minimum 28-day compressive cylinder strength for structural elements, including slabs on grade and stairs.
- b) Reinforced Steel, f_y
- | | |
|----------------------|----------------------|
| for 12mm and smaller | 276 MPa (40,000 psi) |
| for 16mm and larger | 414 MPa (60,000 psi) |
- c) Steel and Miscellaneous Metal Works
- | | |
|--|------------------------|
| Structural shapes, f_y (open or non-tubular) ASTM A 36 | 248.2 MPa (36,000 psi) |
| Shop and field welding, f_y shall be in accordance with AWS A 5.1 or a 5.5 (E 70xx Series) | 485 MPa (70,000 psi) |
| Anchor bolts shall, f_t conform to ASTM A 307 | 138 MPa (20,000 psi) |
| Tension rods shall, f_y be structural steel conforming to ASTM A 40 | 276 MPa (40,000 psi) |

4. Allowable Stresses in Concrete

- a) Flexure, f_c
- | | |
|-------------------------------------|---------------------|
| Extreme fiber stress in compression | $0.45 f_c'$ |
| Extreme fiber stress in tension | $1.60 (f_c')^{1/2}$ |
- b) Shear, v
- As a measure of diagonal tension at a distance from the face of support
- | | |
|----------------------------------|---------------------|
| Beams with no web reinforcement | $1.10 (f_c')^{1/2}$ |
| Joists with no web reinforcement | $1.20 (f_c')^{1/2}$ |
| Members with web reinforcement | $5.00 (f_c')^{1/2}$ |
| Slabs and Footings | $2.00 (f_c')^{1/2}$ |
- c) Bearing
- | | |
|---------------------------|----------------------|
| On full area | $0.25 (f_c')^{1/2}$ |
| On one-third area or less | $0.375 (f_c')^{1/2}$ |
- | | |
|-------------------------------|----------------|
| 16 mm ϕ bars and smaller | 40 mm (1 1/2") |
| 20 mm ϕ bars and higher | 50 mm (2") |
- d) Columns and Pedestal
- Exposed to Earth, Water, Sewage or Weather

Stirrups & Ties	50 mm (2")
Principal Reinforcement	60 mm (2 ½")
e) Walls	
Formed concrete surfaces exposed to earth, water, sewage, weather or in contact with ground	50 mm (2")
f) Footings, Tie Beams and Base Slabs	
At formed surfaces and bottoms bearing on concrete work mat	50 mm (2")

C. TECHNICAL STANDARDS FOR STEEL BOLTED TANKS

1. GENERAL

- a. The tank plate/sheet materials, design, fabrication and erection of the sectional tank shall conform to standard ISO 28765:2008 "Vitreous and porcelain enamels Design of bolted steel tanks for the storage or treatment of water or municipal or industrial effluent and sludges"
- b. Structures are to be engineered with a predicted minimum 30 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.
- c. Tank Size and Capacity

Nominal Diameter:	8.75 m. (maximum)
Sidewall Height:	4.50 m. (maximum)
Tank Gross Capacity	230 m ³ (minimum)
Tank Freeboard, Max.	350 mm
Tank Net Capacity	200 m ³
pH Range	3 – 9

2. DESIGN LOADS

Roof Live Load	: 73.24 kg/m ² (15 psf)
Wind Speed	: 69.44 m/s (250 kph)
Allowable Soil Bearing Capacity	: 2000psf (max.)
Seismic Zone	: 4
Specific Gravity of Tank Contents	: 1

3. MATERIALS

a. Plates and sheets

Plates and sheets used in the construction of the tank shell and roof, shall comply with the minimum standards of ISO 28765:2008 Section 9.2.

b. Roofing Materials and System

Self-Supporting Trough Deck Roof

- The roof shall comprise of galvanised steel support framework covered with Rib-type zinc aluminium sheet and trimmed with a GRP (Glass Reinforced Plastic) perimeter edging profile.
- Roof appurtenances shall include 600mm inspection hatch and air vents as required with insect mesh screening.
- Construction should be undertaken by experience, trained and accredited erector-contractor by the Tank manufacturer to assure proper and correct installation.

c. Glass Coating

• **Coating Standards**

The tank coating shall meet the quality requirements of ISO 28765:2008 and should conform to NSF Standards.

• **Surface Preparation**

Sheets shall be steel grit-blasted to a silver grey finish on both sides to remove mill scale and surface oxidation.

Grit blasting shall be performed to the equivalent of SA2½ or SSPC-SP10.

The surface anchor pattern shall be in the range of 20µm to 100µm with a target value of 60µm.

• **Cleaning**

Immediately after fabrication and grit blasting and prior to application of the coating materials, all sheets shall be thoroughly cleaned by an alkali wash.

Following the alkali wash all sheets shall be rinsed in hot water containing a nitrite based rust inhibitor. The rust inhibition process shall be followed by heat drying to ensure the sheets are clean and dry ready to be coated.

• **Coating**

- a. 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.

- b. All pre-coated sheets shall be heat dried to ensure that a moisture free surface has been achieved before the glass coating layer is applied.
- c. A coat of cobalt rich glass slip shall be continuously applied to both sides of the sheet followed by heat drying.
- d. The coated sheets shall be visually inspected and sheets with spray or glass defects shall be rejected at this point.
- e. The thickness of the coating system shall be measured using an electronic instrument; the instrument shall have a valid calibration record. Interior and exterior dry film coating thicknesses are 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.
- f. After inspection the sheets shall be fired through the furnace at approximately 850°C in accordance with the Manufacturer s procedures.
- g. 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.
- h. Tank inside sheet colour shall be as specified by the Manufacturer. Tank external colour shall be Blue (20-C-40) or Green (12-B-29).
- i. 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.

d. Horizontal Wind Stiffeners

- As part of the scope of supply, the top stiffener shall be flat, horizontal, continuous surface at tank rim level.
- Wind stiffeners shall be steel, hot dipped galvanised, rolled steel angle bar.

e. Bolt Fasteners

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

- All lap joint bolts shall be designed to prevent rotation during tightening.

f. Bolt Head Encapsulation

- 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.
- All other bolts shall be hot deep galvanized conforming to BS 3692 and shall be ½" - 13 UNC-2A rolled thread with hot dipped galvanised coating

g. Sealant

- 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.
- The sealant shall be a one component moisture cured polyurethane compound.
- Where required, the sealant shall be suitable for contact with potable water and meet Regulation 31 or NSF Standard 61 where specified.
- EPDM or Neoprene gaskets and tape type sealer shall not be used other than for shell manway door/hatch.
- One (1) gallon of sealant applied in the reservoir shall be provided by the Contractor as spare to the Owner.

h. Tank Accessories

- One (1) – 800mm. Diameter Mild Steel Galvanized Finished Low-level Tank Wall Access Hatchway
- One (1) – Hot dip Galvanized Mild Steel Access Ladder with Safety Hoops and 1m x 1m Platform set 1.1m below Eaves Level
- Three (3) – Hot dip Galvanized Wall Flange Connection (Inlet, outlet, Overflow)
- One (1) – 600mm. Roof Inspection Hatch
- One (1) – 500mm. Diameter GRP Fresh Air Roof Vent with all necessary fixing and sealant
- One (1) GRP Perimeter Roof Flashing

4. ERECTION

- a. 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 and performed by an Authorised Distributor of the tank Manufacturer, regularly engaged in erection of these tanks or a suitably qualified specialist sub contract builder under the control and supervision of the Authorised Distributor.
- b. Field erection shall conform to Occupational Safety Standard for erection and should be undertaken by a qualified tank erector certified by the tank manufacturer. Specialized erection jacks and building equipment developed and manufactured by the tank manufacturer shall be used to erect the tanks.
- c. Tank lap joint should be done in such a way that seam will follow a straight connection and should be in accordance with Manufacturer's Erection manual.
- d. Levelling 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.
- e. 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.
- f. An electrical Holliday test shall be performed on all contact surfaces of the tank shell sheets during or following construction using a 9-volt leak detection device. Any electrical leak points found on the contact surface shall be repaired in accordance with the Manufacturer's published touch up procedure. After completion of tank build and hydraulic testing the Engineer shall sign the Manufacturer's standard Certificate of Satisfaction issued by the Authorised Tank Distributor.
- g. No backfill or mechanical loads shall be placed on the tank sidewall without prior written approval and design review by the tank Manufacturer. Any backfill shall be placed according to the instructions of the Manufacturer.

5. APPURTENANCES

The ancillary items of equipment should be installed as shown on the plans and as detailed in these specifications. They may include, but are not restricted to the following items:

- a. Outside Tank Ladder

An outside ladder with safety cage beginning a minimum of 2.2M above the level of the tank bottom and at the location designated. Outside ladder and cage shall be in accordance with BS 4211 Class A or OSHA 1910.27.

b. Inside Tank Ladder

An internal ladder, if required, shall be installed below the roof hatch and shall be fabricated in galvanized mild steel, or stainless steel or GRP (Glass Reinforced Plastic) and be in accordance with BS 4211 Class A or OSHA 1910.27. Vertical Ladder conforming to OSH Standard

c. Access/Inspection Platform

A 1m square galvanized steel platform shall be installed to allow safe access to the roof hatch. Platform shall be in accordance with BS 4592 or OSHA 1910.27.

d. Shell Access Hatchway

One hot dip galvanised 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 a hinged support for cover removal. The manway cover plate shall be sealed with an approved gasket system.

e. Inlet and Outlet Connections

- All hot dip galvanised 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 Authorised Tank Distributor.

- Connection sizes shall be as follows:

- i. Inlet flange : 200mm
- ii. Outlet flange : 200mm
- iii. Overflow flange : 200mm
- iv. Drain Pipe : 200mm

- Where connections are shown to pass through tank sheets, these shall be pre-cut by the tank Manufacturer during manufacture.

- When necessary openings may be field located, saw cut opening shall only be done by trained personnel by Tank distributor and shall utilise an interior and exterior flange assembly.

- Acetylene torch cutting, grinding or welding is not permitted.

- Polyurethane sealant shall be applied on any cut sheet edges or bolt connections.

6. Concrete Foundation (Tanks supported on concrete slabs)

a. 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
- b. Tank foundation design shall be based on a soil bearing capacity of **2000 psf** (max.) for the purpose of this contract. Actual soil bearing capacity of the tank site should be verified by the winning bidding utilizing the expertise and recommendation of a certified Geotechnical Engineer.
- c. 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).

7. FIELD TESTING

Leak Test

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

8. DISINFECTION

1. Polyurethane Sealants

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

9. CERTIFICATONS

1. Contractor must present Certification as to Structural Stability of the steel ground reservoir and a Certification that the tank coating is non-toxic & food grade.
2. Certified True Copies of Compliance Certificates to be submitted together with the Bid:
 - a. Manufacturer's **Product Quality Standards** detailing International Standards used for Manufacturing and Sheet Coating Procedure and Process.
 - b. Complete Manufacturer's Original **Products and Technical Brochures**.
 - c. **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.
 - d. Manufacturer's **Distributorship Contract Agreement**.
 - e. **ISO 9001:2008 Certificate**.
 - f. **Assurance Certificate** of a regular visit of supplier's maintenance crew (locally available).
3. Limit of lump sum bid shall be at the inlet and outlet valves. All valves stated/included herein are deemed included in the lump sum bid for the reservoir. All valves shall be butterfly valves; and
4. Other items/requirements that may be required by LWUA/VCWD
5. The Bidder/Contractor shall submit its proposed reservoir drawings/plans (complete) including structural analysis/computations after issuance of Notice of Award.

The drawings/plans shall show location of inlet, outlet, overflow and drain pipes including valves and all other required features such as air vents, water level indicator, access hatchway, inside and outside ladders.

D. DOCUMENTATION/OTHER REQUIREMENTS AND ENGINEERING SERVICES

1. Submission of the following Drawings/Plans (complete):

- a. Dimensions, colour, description of materials and other pertinent information.
- b. Joint and foundation attachment details.
- c. Tank assembly (general arrangement drawing) with positions of appurtenances.
- d. Details of appurtenances.
- e. Roof details (if applicable).

2. Operation and Maintenance Manual (O & M)

- a. Submission of three (3) sets of detailed Operations and Maintenance Manual for each equipment and complete O & M/Monitoring and Troubleshooting of all the water supply/waste water system facilities O & M Manuals shall be in hard bound.
- b. Submission of three (3) sets As-Built Plans/Drawings (print) including an E-copy/soft copy.

3. Product Documentations

All product documentations must be in English and electronic copies (in CD and USB) must also be provided.

4. Field/Engineering Services

- a. WD Operator's Training (*state required training period/s*)
- b. Supervision and Procedures/Schedules on installation works
- c. Testing and commissioning services at site and monitoring of treatment plant performance for a period specified in the **BDS/SCC**.
- d. Laboratory Analysis of Raw and Treated Water Quality for a period specified in the **BDS/SCC** and water samples must be tested for analysis in a Department of Health (DOH) accredited laboratory and **must pass** the Target Outputs listed above including all design criteria/parameters.

E. CONSTRUCTION SCHEDULES:

1. Submission of PERT/CPM Network and Bar Chart/S-Curve Schedule (*Design stage and construction stage should be well defined in the schedule*)
2. Submission of Manpower and Equipment Schedule
3. Submission of Financial Periodic Cash Requirement

F. PAYMENTS

Payments shall be in accordance with the Bidding Documents (Vols. 1 and 2) and/or R.A. 9184.

G. GUARANTEE/WARRANTY

1. Any discovered defects either on material/s and/or construction method/s during the one (1) year Defects Liability Period/Warranty Period shall be repaired/replaced by the Contractor otherwise WD may do the repair/replacement works or assign to other Contractor/Supplier. All repair/replacement expenses are chargeable to the Contractor.
2. Aside from the regular 10% Retention Money and the one (1) year Defects Liability Period/Warranty Period, *the Owner shall have the right to withhold any payment or may require any other security it may decide in order to be assured that all required performance tests, operating expenses and desired outputs are met. This must be clearly indicated/specified in the BDS/SCC.*

H. CONTRACT TIME

This “*Design and Build*” Scheme Project must be completed within Ninety (90) Calendar Days from the issuance and effectivity of the formal Notice to Proceed (NTP).



SPECIAL ITEMS

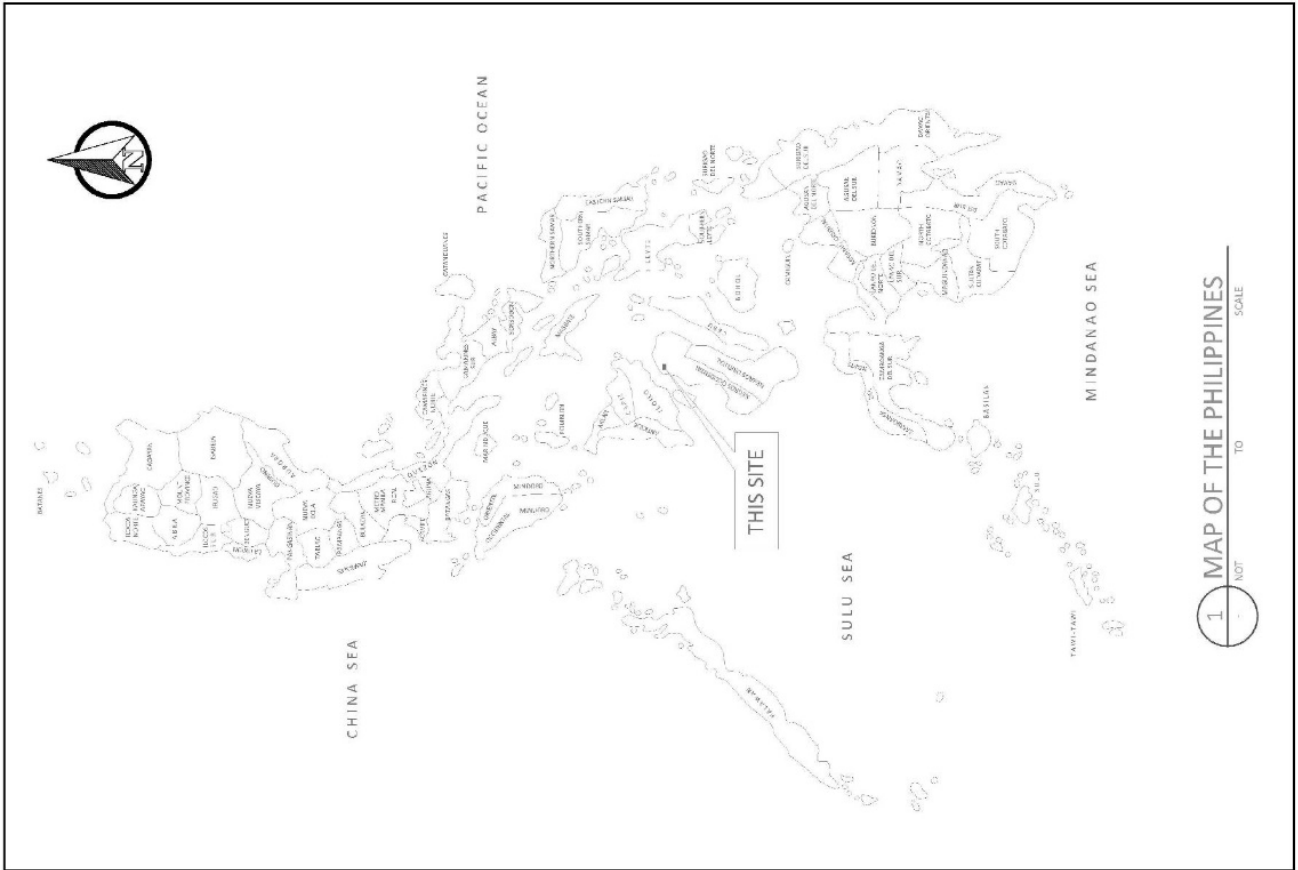
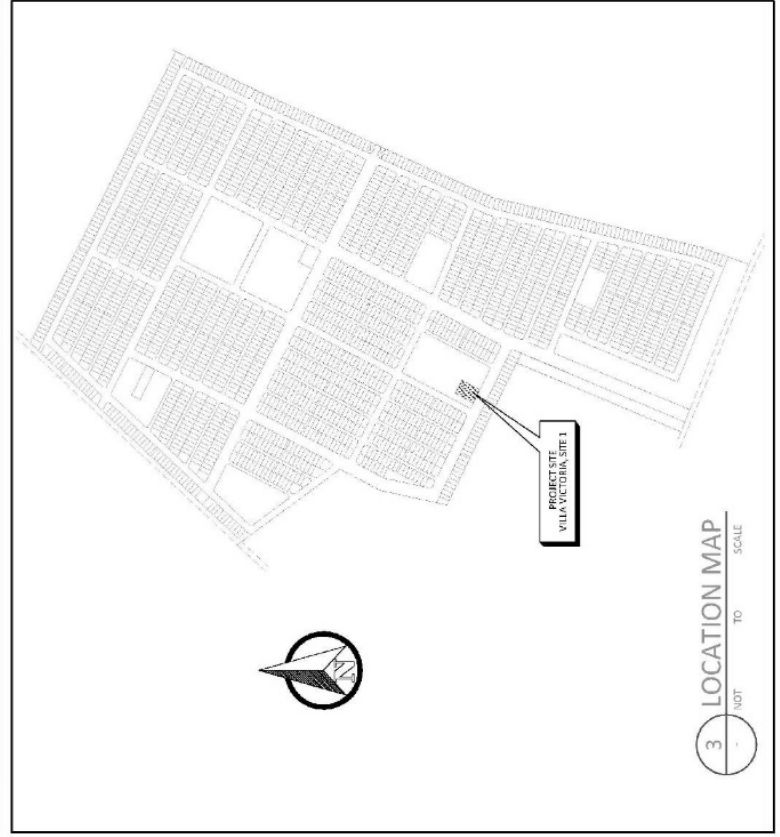
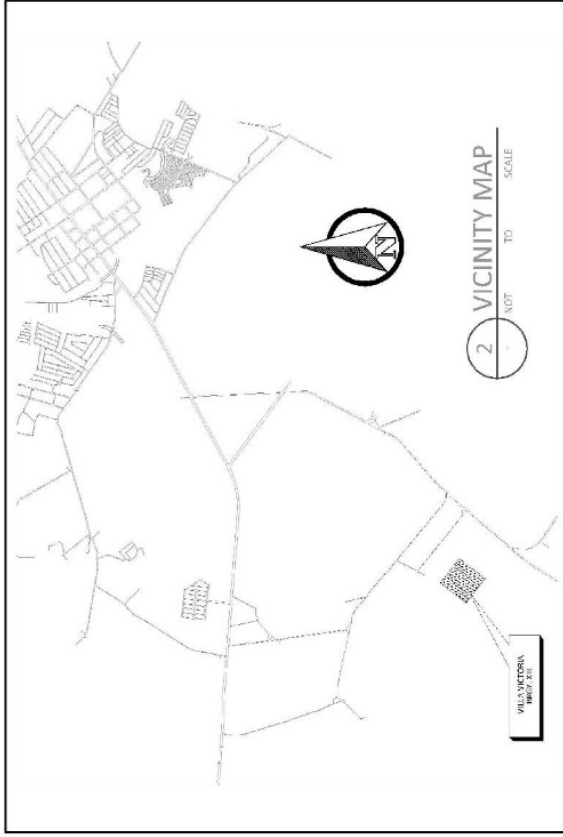
- a. Procurement of all permits, bonds, insurances, warrantees/guarantees, etc; and
- b. Provide and maintain Project Signboards.



GENDER AND DEVELOPMENT ACTION PLAN

- a. The Gender Action Plan (GAP) shall also form part of the contract. The contractor shall comply with the measures set forth in the GAP. Further highlighting the project’s benefits in terms of community development, livelihood and income opportunities, gender and participation.
- b. The contractor shall adhere with RA 6685, apply core labor laws and regulations and incorporate applicable workplace occupational safety norms; strongly encourage to hire at least 20% women in skilled and unskilled position in civil works; comply with GAD-related legal mandates, including prevention and response to gender-based violence.
- c. Establish and implement a mechanism that will prevent and address incidents of sexual harassment and other forms of gender-based violence occurring in the context of civil works at work and affected or surrounding communities/areas.

Section VII. Drawings



Section VIII. Bill of Quantities

Product Name: DESIGN AND BUILD CONTRACT FOR THE DESIGN AND CONSTRUCTION OF 200 CUBIC METERS STEEL-BOLTED-GLASS-FUSED GROUND RESERVOIR FOR VICTORIAS CITY WATER DISTRICT

(PROVISION OF WATER SUPPLY TO NHA PERMANENT RESETTLEMENT SITES ON YOLANDA AFFECTED AREAS)

Location: VICTORIAS CITY, NEGROS OCCIDENTAL

SECTION VIII - BILL OF QUANTITIES

Part No. __ of __				Part Description: _____	
(Columns (1), (2), (3) and (4) are to be filled up by the Procuring Entity)				(Columns (5) and (6) are to be filled up by the Bidder)	
Pay Item No	Description	Unit	Quantity	Unit Price (Pesos)	Amount (Pesos)
DESIGN PHASE					
A.	DETAILED ENGINEERING (Conduct Detailed Engineering in accordance with the Contract that shall include among others survey, site investigation, preparation of construction plans, preparation of quantity estimates with detailed unit price analysis, preparation of program of work, detailed construction methods, materials and construction specifications, construction schedule, construction methods, preparation of design report, acquisition of permits and other works as required under the Contract)	1	LS	In Words: _____ _____ In Figures: _____	In Words: _____ _____ In Figures: _____
CONSTRUCTION PHASE					
B.	Acquisition, processing and payment of all building and excavation permits, ECC, clearances and all other permit necessary in the project implementation	1	LS	In Words: _____ _____ In Figures: _____	In Words: _____ _____ In Figures: _____
C.	Temporary site facilities, project organization and resource movement	1	LS	In Words: _____ _____ In Figures: _____	In Words: _____ _____ In Figures: _____

D.	Site Development (includes landfilling/elevating the whole lot area by 1.50m above the level of the road)	1	LS	In Words: _____ _____ In Figures: _____	In Words: _____ _____ In Figures: _____
E.	Structures				
E.1.	Foundation Works with Soil Investigation Report	1	LS	In Words: _____ _____ In Figures: _____	In Words: _____ _____ In Figures: _____
E.2.	200 cu.m Steel-Bolted-Glass-Fused Reservoir Structure	1	LS	In Words: _____ _____ In Figures: _____	In Words: _____ _____ In Figures: _____
F.	Piping Works and Valving System				
F.1.	Inlet/Outlet, Drain/RCP, and Overflow Pipes (See Sheet C-01 for limits of lump sum bid)	1	LS	In Words: _____ _____ In Figures: _____	In Words: _____ _____ In Figures: _____
F.2.	Valving system (See Sheet C-01 for valve type/sizes)	1	LS	In Words: _____ _____ In Figures: _____	In Words: _____ _____ In Figures: _____
G.	Testing				
G.1.	Electrical Holliday Test	1	LS	In Words: _____ _____ In Figures: _____	In Words: _____ _____ In Figures: _____
G.2.	24 Hour Hydraulic Leak Test	1	LS	In Words: _____ _____ In Figures: _____	In Words: _____ _____ In Figures: _____

G.3.	Laboratory Analysis of Raw and Treated Water	1	LS	In Words: _____ _____ In Figures: _____	In Words: _____ _____ In Figures: _____
H.	Clearing and Disposal of Excess Materials	1	LS	In Words: _____ _____ In Figures: _____	In Words: _____ _____ In Figures: _____
TOTAL BIDDED COST		<i>In Words:</i> _____ <i>In Figures:</i> _____			

Submitted by:

Name of & Signature and Official Stamp of Bidder/Bidder's Representative:

Date: _____

Position: _____

Name of Bidder: _____

Notes:

1. *In case of discrepancy between the amount in words and the amount in figures, amount in words shall prevail.*
2. *Unit bid prices in Bid Forms shall prevail over the detailed cost estimates in Breakdown of Prices.*
3. *Quantities Estimated are for the purposes of comparing bids. Payment will be based on actual quantities furnished, installed or constructed.*

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 design/design and build related 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 design and construction personnel, to be assigned to the contract to be bid, with their complete qualification and experience data/curriculum vitae, and valid licenses issued by the Professional Regulatory Commission (PRC) for design professionals;
 - ☐ 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;
 - ☐ d. Preliminary Conceptual Design Plans in accordance with the degree of details specified by the procuring entity (refer to Bid Data Sheet);

- e. Design and construction methods;
- f. Value engineering analysis of design and construction method (in a form of structural analysis);
- g. Conformity with the performance specifications, as stated in Section VII of the Bidding Documents (refer to Bid Data Sheet); and
- (e) 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

- (f) 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**
- (g) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

Class "B" Documents

- (h) 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

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

Other documentary requirements under RA No. 9184

- (j) Lump sum bid prices, which shall include the detailed engineering cost, in the prescribed Bid Form; **and**
- (k) Detailed estimates including a summary sheet indicating the unit prices of construction materials, labor rates and equipment rentals used in coming up with the bid; **and**
- (l) Cash flow by the quarter and payments schedule.

