



SSTP SUPPLEMENTAL BID BULLETIN NO. 2022-002

Subject: PR No. 22-0113 – Design, Build, Testing & Commissioning of Proposed 4,000 CMD Sewage & Septage Treatment Plant

This Supplemental Bid Bulletin is issued to clarify, modify or amend items in the issued Bidding Documents for the above-subject procurement in view of the **Pre-Bid Conference** last **July 21, 2022** via Video Conferencing.

QUERIES RAISED DURING THE PRE-BID CONFERENCE

Item No.	Particulars	Query	Issues/Amendments/Updates /Clarifications
1.	Single Largest Completed Contract	<u><i>May I ask if in our SLCC attachment is purely SEPTAGE TP project is it acceptable as an attachment?</i></u>	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>[provide description/clarification of what are major categories of work].</i> <i>“Design and build of wastewater treatment facility.”</i> Considering that a Septage Treatment Plant project is a wastewater treatment project, then a purely septage treatment plant is project is acceptable for an SLCC attachment.

2	Conceptual	<u><i>Conceptual Design. Is it really required to have the primary settling tank? The performance specifications (5.6.2 and 5.6.3 pages 107 & 108) says it may not be included</i></u>	The purpose of requiring primary treatment of the wastewater is to remove floating and settleable solids in the wastewater. If the proposed treatment process has an equivalent process that meets the same objective of reducing floating and settleable solids in the wastewater, then a primary settling tank can be dispensed with.
3	SLCC	<i>We have an experience we designed 11MLD treatment plant, that we did not need the primary sedimentation tank, and we are able to comply with the effluent requirements. So, I believe that the primary sedimentation tank is not really necessary for our proposed process.</i>	This proposal will be considered if it complies with the intended purpose of the primary sedimentation tank, which is to remove floating and settleable solids in the wastewater, if this be the case, then a primary settling tank can be dispensed with.
4	Document Fee	<u><i>Is it required to purchase again the Bid docs, although we purchased bid docs from previous bid 2 years ago?</i></u>	<p>Yes, the bidder which participated in previous biddings for this project must purchase the bid documents again.</p> <p>The Performance Specifications and Parameters, Approved Budget for the Contract (ABC) for PR No. 22-0113 – Design, Build, Testing & Commissioning of Proposed 4,000 CMD Sewage & Septage Treatment Plant has been updated for this particular bidding.</p>

5	SLCC	<u><i>Is there a requirement for minimum capacity of the wastewater treatment plant required as experience?</i></u>	No. The requirements for SLCC are stated in the Invitation to Bid (Paragraph 2), Instruction to Bidders (5.2), and Revised Performance Specifications (2.1). The bidder must review the Philippine Bidding Documents for PR No. 22-0113 – Design, Build, Testing & Commissioning of Proposed 4,000 CMD Sewage & Septage Treatment Plant for requirements for the SLCC and other components of the bid.
6	Influent Parameters	<u><i>Please provide INFLUENT parameters (BOD, COD, TSS, pH, Oil & Grease, TKN, TN, Ammonia, Nitrate, Phosphate, Alkalinity, Surfactants, others)</i></u>	This project is for a design and build contract. Thus, consistent with No. 7 Annex “G” of the IRR of R.A.9184, the contractor is responsible for the accuracy and applicability of all data that it will use in its design and build proposal and services. Thus, it is incumbent upon the bidders to secure such data.
7	Influent Parameters	<u><i>This one is a bidding procedure, we believe that it should be provided at least because for uniformity for all the bidders. Some of the bidders will assume a small value, some of the bidders will assume a bigger value, and then it is also a protection for both parties Zamboanga Water District and the winning contractor. In case there will be some spikes in the influent, as experienced during the sampling for the verification, we have phosphate level of around 8 ppm, now there are some days that the phosphate will spike up to 50 to 20 ppm, and it will affect the influent quality because we do not take the sample</i></u>	Same reply as item No. 6 above.

		<u>every single day for this one. So the aspect on the chemicals process will take a few days, not just hours. So that is why there should be some safe guard on both the owner and the contractor for this one. That is why we are requesting this will be our basis. If there will be a spike, so it should consider that the effluent would not be able to pass on some of these days</u>	
8	Power Consumption	<u>Who will shoulder the POWER CONSUMPTION during the testing, commissioning and process proving, respectively?</u>	Please refer Section 2.5 of the Performance Specifications. All costs that will be incurred for Non-Engineering Works, Design and Construction, Testing and Commissioning and Process Proving, shall be to the account of the contractor, which includes, but not limited to the power consumption, chemicals, 3rd party laboratory testing during these phases of the project.
9	All other Fees	<u>[Who will shoulder the CHEMICALS during the testing, commissioning, and process proving, respectively?], and 5 [Who will shoulder the 3rd Party Laboratory Fees during the testing, commissioning and process proving, respectively?]</u>	Same reply as item No. 8 above.
10	Testing Fee	<u>Who will be shouldering the testing fee during the plant commissioning period?</u>	Same reply as item No. 8 above.

11	BOQ Format	<u>Please provide the format of the BOQ, it was not included in the current set of the bidding documents that we downloaded from ZCWD website</u>	Refer to the attached Bill of Quantities (BOQ). The BOQ are made an integral part of the bidding documents for PR No. 22-0113 – Design, Build, Testing & Commissioning of Proposed 4,000 CMD Sewage & Septage Treatment Plant.																
12	DENR permit	<u>Is the bidder's scope to apply the permits to DENR such as discharge permit? or it will be the client's scope?</u>	ZCWD already applied for the discharge permit but payment thereof will be charged to the winning contractor since it is a requisite activity for the process proving.																
13	Source of Waste water	<u>Into this SSTP location, are we also receiving wastewater from nearby industry if there is any? or purely domestic waste?</u>	No, the SSTP is receiving water from the Central Business District. But, bidders must study the project area and its customer profile for them to be able to come up with the most appropriate treatment design.																
14	Existing pumps and controller	<u>Please provide details of the existing pumps and controller at the existing lift station (West?) to the proposed STP. If needed replacement, is it subject to variation order?"</u>	<p>The pump needed should be designed for 6mld, including the pipeline, which is part of the performance specification.</p> <p>For East Pumping Station</p> <table border="1" data-bbox="1011 1171 1460 1361"> <thead> <tr> <th>Pump & Motor</th> <th>Brand</th> <th>Date Installed</th> <th>Issues and Concern</th> </tr> </thead> <tbody> <tr> <td>3 Units of 7.5 hp, 220 Volst, 19 ampere, 3 phase at 8675 RPM, Multi Stages Pump with 550 GPM Capacity</td> <td>Fairbank Morse</td> <td>1938</td> <td>Only 2 units are running but all motors are rewinded multiple times. The pump shafting had been milled and fabricated multiple times also. The pumps bearing are replaced quarterly due to shafting dis alignment.</td> </tr> </tbody> </table> <p>For West Pumping Station</p> <table border="1" data-bbox="1011 1429 1460 1619"> <thead> <tr> <th>Pump & Motor</th> <th>Brand</th> <th>Date Installed</th> <th>Issues and Concern</th> </tr> </thead> <tbody> <tr> <td>1 Unit of 7.5 hp, 220 Volst, 19 ampere, 3 phase at 8675 RPM, Multi Stages Pump with 550 GPM Capacity</td> <td>Fairbank Morse</td> <td>1938</td> <td>Only 1 unit are running but all motors are rewinded multiple times. The pump shafting had been milled and fabricated multiple times also. The pumps bearing are replaced quarterly due to shafting dis alignment. (2 units are already defective).</td> </tr> </tbody> </table> <p>Be it informed that all motor controls are Direct On-Line (DOL) Control.</p>	Pump & Motor	Brand	Date Installed	Issues and Concern	3 Units of 7.5 hp, 220 Volst, 19 ampere, 3 phase at 8675 RPM, Multi Stages Pump with 550 GPM Capacity	Fairbank Morse	1938	Only 2 units are running but all motors are rewinded multiple times. The pump shafting had been milled and fabricated multiple times also. The pumps bearing are replaced quarterly due to shafting dis alignment.	Pump & Motor	Brand	Date Installed	Issues and Concern	1 Unit of 7.5 hp, 220 Volst, 19 ampere, 3 phase at 8675 RPM, Multi Stages Pump with 550 GPM Capacity	Fairbank Morse	1938	Only 1 unit are running but all motors are rewinded multiple times. The pump shafting had been milled and fabricated multiple times also. The pumps bearing are replaced quarterly due to shafting dis alignment. (2 units are already defective).
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15	PCAB	<u>Regarding our PCAB License, Sir, the kinds of project what is needed for this particular project?"</u>	The bidder shall have a PCAB License range of Medium B with License Category A as per PCAB Categorization Classification Table, PCAB Board Resolution No. 201 series of 2017.																

16	Site Inspection	<u>Regarding our site inspection, sir, is it needed for our eligibility requirement?</u>	Site inspection is not a requirement for eligibility.
17	Laboratory	<i>Is there a laboratory testing facility near the location to where the SSTP will be constructed?</i>	There are at least four (4) testing laboratory in Zamboanga City. The Bureau of Soils, Department of Science and Technology (DOST), Environmental Management Bureau (EMB), and Zamboanga City Medical Center (ZCMC) testing laboratories.
18	Accredited Laboratories	<u>These four identified laboratories are all accredited by Zamboanga City Water District. And the EMB?</u>	The Zamboanga City Water District (ZCWD) does not accredit laboratories. For DENR-EMB latest accredited list of laboratories, the bidder is advised to inquire with the latter agency.
19	Testing Equipment of	<u>Which equipment are required to be tested at the manufacturer, where the ZCWD representatives will be present?</u>	All equipment installed or in-placed shall only be tested at the project site with the presence of the ZCWD representatives. Manufacturer testing reports shall be submitted to the ZCWD for reference.
20	Notarial Seal	<u>Regarding our eligibility, sir, regarding the notarial practice sir, is it a ground for disqualification if our notarial seal is only stamped? Stamped only not the seal? Not the sealed? Dry seal?</u>	It has to have the dry seal of the notary public, considering it is a requirement under the notarial law.
21	Award Contract of	<i>Is the LOWEST BIDDER automatically will be declared as the WINNING bidder?</i>	The lowest bidder has to pass and be responsive to the other requirements as stated in the bidding documents and the Revised Performance Specifications.

22	Permit	<u><i>Does ZCWD have assistance for securing the necessary permit?</i></u>	ZCWD assistance is limited to coordination with the appropriate agencies to secure the necessary permits.
23	Presentation of the Salient Features of the SSTP during the Pre-Bid Conference	<i>Requesting a copy of the presentation</i>	See attached.

Clause 6.1(a), ITB of the PBD for the Procurement of Infrastructure, it is the responsibility of the bidder to take steps to carefully examine all of the Bidding Documents. Consequently, under Clause 6.5 of the same PBD, the Procuring Entity shall not assume any responsibility regarding erroneous interpretations or conclusions by the prospective or eligible bidder out of the data furnished by the Procuring Entity.

These clarifications shall form an integral part of the Bidding Documents. All items, conditions and instruction to bidders specified in the Bidding Documents inconsistent with this Supplemental Bid Bulletin are hereby superseded and modified accordingly.

For guidance and information of all concerned.


MICHAEL ANGELO M. CARBON
 Chairperson
 Bids and Awards Committee

Posting date: August 24, 2022
 Posted in the Phil-GEPS, ZCWD Website & Bid Bulletin



BILL OF QUANTITIES


Project Title: PROPOSED DESIGN, BUILD, TESTING & COMMISSIONING OF 4000 CU.M. PER DAY SEWAGE AND SEPTAGE TREATMENT PLANT
 Project Duration: Six Hundred Ten (610) Calendar Days

WORK ITEM / DESCRIPTIONS		QUANTITY	UNIT	UNIT COST (w/ OCM, Profit & VAT)	TOTAL AMOUNT
I. GENERAL REQUIREMENTS					
II. PLANNING AND ENGINEERING DESIGN PHASE					
II. CONSTRUCTION PHASE					
A.	EARTHWORKS				
B.	CIVIL WORKS				
C.	ELECTRICAL WORKS				
D.	SSTP PROCESS				
E.	OTHERS				
III. TURNOVER					
A.	TESTING AND COMMISSIONING				
B.	PROVING TREATMENT PERFORMANCE				
C.	TURNOVER OF LABORATORY TOOLS & EQUIPMENT AND OFFICE EQUIPMENT				
D.	OTHERS				

Total Project Cost _____

Prepared & Submitted by:

 Contractor's Authorized Representative



P.R. NO. 22-0113

Design, Build, Testing &
Commissioning of 4MLD
Sewage-Septage Treatment
Plant



General Requirement

General Provision:

1.1 The design, build, testing and commissioning of 4MLD sewage-septage treatment plant is open to all technologies, solutions, design, and construction method. The Contractor should be able to design the process and construct a sewage and septage treatment plant (SSTP) capable of treating 4,000 cubic meter per day of sewage collected from the existing sewerage system of the Zamboanga City Water District that would meet the effluent quality requirements set under this specification. The capacity of the SSTP must be expandable to 6,000 cubic meters per day at any time when the full capacity of 4,000 cubic meters per day has been achieved. Furthermore, should also be able to treat 15 cum/day of septage .



Conceptual Design

2.4 CONCEPTUAL DESIGN

2.4.1 The treatment process must include the primary, secondary and tertiary treatment of the wastewater.

2.4.2 **Pre-treatment** shall include at the minimum screens, grit removal, flow equalization, oil and grease removal.

2.4.3 **Primary Treatment** shall include at the minimum primary settling basins, primary sedimentation tanks or primary clarifiers.

2.4.4 **Secondary treatment** shall be either a fixed film or attached growth systems, suspended-growth systems or a hybrid or combination thereof.

2.4.5 **Tertiary treatment** shall include disinfection or effluent polishing before finally discharging to the Magay Creek or reclamation for reuse.

2.4.6 **Sludge Treatment** may either be belt press, screw press, filter press, centrifuge or volute.

2.4.7 **Septage Acceptance Unit** capable of accepting, screening and pre-treating septage conveyed by vacuum trucks.



Effluent Quality Requirements

6.1 TREATMENT PLANT PERFORMANCE AND EFFLUENT REQUIREMENTS

6.1.3 The effluent quality discharged from the STP shall comply with the provisions of DENR Administrative Order No. 2021-19, June 30, 2021 Updated Water Quality Guidelines (WQG) and General Effluent Standards (GES) for Selected Parameters applicable to Class C Freshwater Body.

Effluent Quality Requirements

Parameters	Units	Effluent Limits
Ammonia as $\text{NH}_3\text{-N}$	Mg/l	0.6
BOD_5	Mg/l	50
Nitrate as $\text{NO}_3\text{-N}$	Mg/l	14
Phosphate	Mg/l	1
Surfactants	Mg/l	15
Oil and Grease	Mg/l	5
Fecal Coliforms	MPN/100 ml	400



Effluent Quality Requirements

6.1 TREATMENT PLANT PERFORMANCE AND EFFLUENT REQUIREMENTS

6.1.3 Notwithstanding the above requirements, this project will require the SSTP to produce better effluent quality such that the **BOD5 should be 30 mg/l, COD should be 60 mg/l, Fecal Coliform of 200 MPNB/100 ml and Total Coliforms shall be 3,000 MPN/100 ml or better.**



COMMISSIONING REQUIREMENTS

5.1.3 Commissioning shall comprise of a minimum of two (2) stages:

5.1.3.1 **Testing and pre-commissioning** by the Contractor on site of individual equipment and of integral system operation which has a period of 30 days;

5.1.3.2 **Final commissioning** by the Contractor as directed by ZCWD for equipment and integral system operation in compliance with required standards to the satisfaction of ZCWD. This stage shall cover the trial run for a period of 30 days. During the trial run, weekly sampling must be taken and be tested with a DENR accredited laboratory. All weekly samples must pass all the parameters of the required effluent standards within the 30 day period trial run. If during the trial run, a sample did not comply with the required effluent standards, the same shall be repeated. At this instance, the 30-day period shall recommence. This stage of the commissioning shall only be considered to have been complied if all samples have passed the required effluent standards within the given period. All costs incurred for modification to meet the required effluent shall be to the account of the Contractor.



COMMISSIONING REQUIREMENTS

5.3.2 The Contractor shall be responsible for making all the necessary remedial measures within 90 calendar days after the first test period to bring the plant performance efficiency to the specified level at no additional cost to ZCWD; except when the cause of not meeting the specified level of efficiency is when the actual plant loading is more than the specified plant loading duly verified by the Contractor prior to construction. Failure of the Contractor to make the remedial measures shall authorize ZCWD to confiscate the Performance Security or Performance Guarantee bond as the case may be and to retain all monies due to the Contractor without prejudice to ZCWD's right to file a damage suit.



PROCESS PERFORMANCE TEST AND GUARANTEE

6.2.1 During the Process Proving Period, aside from the daily analysis of effluent by the in-house laboratory, all laboratory analysis of the final effluent conducted monthly must be analyzed by a third party laboratory duly accredited by the Environmental Management Bureau and submitted to ZCWD. All sampling activities must be conducted in the presence of ZCWD representatives for the whole duration of the process proving period.



PROCESS PERFORMANCE TEST AND GUARANTEE

6.2.2 Prior to acceptance of the STP, the Contractor shall, for ninety (90) consecutive days, demonstrate that the completed STP is capable of treating sewage in compliance with the provisions on Treatment Plant Performance Requirements/Efficiencies at the given initial plant loading and at an operation cost not more than ten percent (10%) of the bidder's quoted operation cost. The process proving period of one (1) year shall start upon passing the 90 days commissioning period.



PROCESS PERFORMANCE TEST AND GUARANTEE

6.2.3 After the commissioning period has been completed and accepted by ZCWD, the 1-year process proving period will commence. During this period, the contractor will operate the STP based on the guaranteed OPEX, which was submitted during the bidding, and should consistently pass the required effluent standard. The contractor therefore will operate the STP only within these periods – the 90-day commissioning period and the 1-year process proving period following commissioning until they have satisfied the requirements.



PROCESS PERFORMANCE TEST AND GUARANTEE

6.2.4 In case the effluent during monthly sampling period failed to pass the required standard and the actual operating cost is higher by ten percent (10%) than the quoted operation cost, the Contractor shall make some modification on the STP. The process /test shall be repeated until the operating cost shall equal the quoted operation cost or within the allowed variance and the effluent standard has been met from which time the 1 year process proving period shall again be counted. Costs of all modifications shall be to the account of the Contractor.



PROCESS PERFORMANCE TEST AND GUARANTEE

6.2.4 If after such modification the computed actual annual operation cost during the process proving period (including but not limited to costs of labor, chemicals, electric energy) exceed the quoted operation cost and the given variance, the difference, extrapolated linearly up to 25 years using the average design plant loading and an inflation rate of five percent (5%) per annum and discounted to present value at a discounting rate of 10%, shall be charged to the Contractor's collectibles and to the Performance Bond if the former is not enough.



PROCESS PERFORMANCE TEST AND GUARANTEE

6.2.4 If after such modification the computed actual annual operation cost during the process proving period (including but not limited to costs of labor, chemicals, electric energy) exceed the quoted operation cost and the given variance, the difference, extrapolated linearly up to 25 years using the average design plant loading and an inflation rate of five percent (5%) per annum and discounted to present value at a discounting rate of 10%, shall be charged to the Contractor's collectibles and to the Performance Bond if the former is not enough.



PROCESS PERFORMANCE TEST AND GUARANTEE

6.2.5 The variance in the OPEX costs will serve as the basis for the computation of the NPD. The Non-Performance Damages (NPD) shall be calculated as follows:

$$\text{NPD} = [\text{Actual OPEX} - \text{Guaranteed OPEX}] \times 9.077$$

These OPEX values represent figures taken during the 1-year proving period. The 9.077 is the computed factor which represents the cost of money over the life of the project – in this case a discount of 10% and over 25 years life of project.