

PHILIPPINE BIDDING DOCUMENTS

**Procurement of
INFRASTRUCTURE
PROJECTS**

Government of the Republic of the Philippines

**Supply of Labor, Equipment
and Appurtenances for the
Drilling of 300mm x 180m
Production/Test Well**

**Sixth Edition
July 2024**

Preface

These Philippine Bidding Documents (PBDs) for the procurement of Infrastructure Projects (hereinafter referred to also as the “Works”) through Competitive Bidding have been prepared by the Government of the Philippines for use by all branches, agencies, departments, bureaus, offices, or instrumentalities of the government, including government-owned and/or -controlled corporations, government financial institutions, state universities and colleges, local government units, and autonomous regional government. The procedures and practices presented in this document have been developed through broad experience, and are for mandatory use in projects that are financed in whole or in part by the Government of the Philippines or any foreign government/foreign or international financing institution in accordance with the provisions of the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

The PBDs are intended as a model for admeasurements (unit prices or unit rates in a bill of quantities) types of contract, which are the most common in Works contracting.

The Bidding Documents shall clearly and adequately define, among others: (i) the objectives, scope, and expected outputs and/or results of the proposed contract; (ii) the eligibility requirements of Bidders; (iii) the expected contract duration; and (iv) the obligations, duties, and/or functions of the winning Bidder.

Care should be taken to check the relevance of the provisions of the PBDs against the requirements of the specific Works to be procured. If duplication of a subject is inevitable in other sections of the document prepared by the Procuring Entity, care must be exercised to avoid contradictions between clauses dealing with the same matter.

Moreover, each section is prepared with notes intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They shall not be included in the final documents. The following general directions should be observed when using the documents:

- a. All the documents listed in the Table of Contents are normally required for the procurement of Infrastructure Projects. However, they should be adapted as necessary to the circumstances of the particular Project.
- b. Specific details, such as the “*name of the Procuring Entity*” and “*address for bid submission*,” should be furnished in the Instructions to Bidders, Bid Data Sheet, and Special Conditions of Contract. The final documents should contain neither blank spaces nor options.
- c. This Preface and the footnotes or notes in italics included in the Invitation to Bid, BDS, General Conditions of Contract, Special Conditions of Contract, Specifications, Drawings, and Bill of Quantities are not part of the text of the final document, although they contain instructions that the Procuring Entity should strictly follow.
- d. The cover should be modified as required to identify the Bidding Documents as to the names of the Project, Contract, and Procuring Entity, in addition to date of issue.

- e. Modifications for specific Procurement Project details should be provided in the Special Conditions of Contract as amendments to the Conditions of Contract. For easy completion, whenever reference has to be made to specific clauses in the Bid Data Sheet or Special Conditions of Contract, these terms shall be printed in bold typeface on Sections I (Instructions to Bidders) and III (General Conditions of Contract), respectively.

- f. For guidelines on the use of Bidding Forms and the procurement of Foreign-Assisted Projects, these will be covered by a separate issuance of the Government Procurement Policy Board.

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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

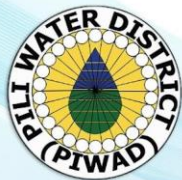
Notes on the Invitation to Bid

The Invitation to Bid (IB) provides information that enables potential Bidders to decide whether to participate in the procurement at hand. The IB shall be posted in accordance with Section 21.2 of the 2016 revised IRR of RA No. 9184.

Apart from the essential items listed in the Bidding Documents, the IB should also indicate the following:

- a. The date of availability of the Bidding Documents, which shall be from the time the IB is first advertised/posted until the deadline for the submission and receipt of bids;
- b. The place where the Bidding Documents may be acquired or the website where it may be downloaded;
- c. The deadline for the submission and receipt of bids; and
- d. Any important bid evaluation criteria.

The IB should be incorporated into the Bidding Documents. The information contained in the IB must conform to the Bidding Documents and in particular to the relevant information in the Bid Data Sheet.



INVITATION TO BID

The **PILI WATER DISTRICT**, through its BIDS AND AWARDS COMMITTEE invites suppliers/manufacturers to apply for eligibility and to bid for the following project:

Name of Project	Approved Budget of the Contract (Php)	Cost of Bid Documents (Php)	Contract Duration (CD)
Supply of Labor, Equipment and Appurtenances for the Drilling of 300mm x 180m Production/Test Well	Php 3,400,843.92	Php 5,000.00	120

The Funding Source is the GOP through the Corporate Budget for 2024 approved by the board. Bids received in excess of the ABC shall be automatically rejected at bid opening. Prospective Bidders should have completed within Five (5) years from the date of submission and receipt of bids, a contract similar to the project and the contract amount should be at least fifty percent (50%) of the ABC to be bid.

Bidding will be conducted through open competitive bidding procedures using non-discretionary pass/fail criterion as specified in the Implementing Rules and Regulations (IRR) of Republic Act 9184 (RA 9184) as amended, otherwise known as the "Government Procurement Reform Act".

The schedule of activities is listed as follows:

SCHEDULE OF ACTIVITIES	
Pre-bid Conference/Site Inspection	August 5, 2024 (2:00 PM)
Bids Opening	August 19, 2024 (2:00 PM)
Bid Evaluation	August 20, 2024
Post-Qualification	August 21-25, 2024
Notice of Award	August 27, 2024
Contract Signing	August 28, 2024
Notice to Proceed	August 29, 2024

Bidding Documents may be acquired by interested Bidders from Pili Water District office upon payment of a non-refundable amount stated above and can be viewed and downloaded at www.piliwaterdistrict.gov.ph

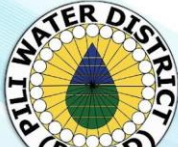
Bidding is restricted to eligible bidders as described in ITB 5.1.

Bids must be delivered on or before the above stated scheduled dates at Pili Water District office. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in ITB Clause 18.1.

The PILI WATER DISTRICT reserves the right to accept or reject any bid, to annul the bidding process, and to reject all bids at any time prior to contract award, without thereby incurring any liability to the affected bidder or bidders.

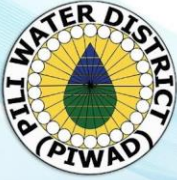
For further information, please contact:

(Sgd.) **ROWENA A. MONGOSO**
 BAC Secretary
 09190664598



Invitation to Bid for Supply of Labor, Equipment and Appurtenances for the Drilling of 300mm x 180m Production/Test Well

1. The **Pili Water District**, through the **Corporate Budget for CY 2024** intends to apply the sum of **Php 3,400,843.92** being the ABC to payments under the contract for **Supply of Labor, Equipment and Appurtenances for the Drilling of 300mm x 180m Production/Test Well / PR. No. 24-07-219**. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The **Pili Water District** now invites bids for the above Procurement Project. Completion of the Works is required by **One Hundred Twenty (120) 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, Pili Water District, Sta. Rita Agro-Industrial Park, San Jose, Pili, Camarines Sur** and inspect the Bidding Documents at the address given below during office hours, **8:00 AM to 5:00 PM, Monday to Friday**.
5. A complete set of Bidding Documents may be acquired by interested Bidders on **July 30, 2024 to August 19, 2024** from the given address and website(s) **www.piliwaterdistrict.gov.ph** and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of **Php 5,000.00**. The Procuring Entity shall allow the bidder to present its proof of payment for the fees in person or through electronic means.
6. The Pili Water District will hold a Pre-Bid Conference on **August 5, 2024, 2:00 PM** at the given address below and/or via **Zoom Meeting (Meeting ID: 330 719 2475, Passcode: bac2021)** which shall be open to prospective bidders.
7. Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below on or before **August 19, 2024, 1:30 PM**. 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 **August 19, 2024, 2:00 PM** at the given address below and/or via **Zoom Meeting (Meeting ID: 330 719 2475, Passcode: bac2021)**. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
10. The **Pili Water District** reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
11. For further information, please refer to:

ROWENA A. MONGOSO
BAC Secretary
Pili Water District
Sta. Rita Agro-Industrial Park
San Jose, Pili, Camarines Sur
09190664598
12. You may visit our official webpage www.piliwaterdistrict.gov.ph for downloading of Bidding Documents.

July 25, 2024

JOREX B. OLIVARES
BAC Chairperson

Bulos na danay, Serbisyon ng tunay!

Section II. Instructions to Bidders

Notes on the Instructions to Bidders

This Section on the Instruction to Bidders (ITB) provides the information necessary for bidders to prepare responsive bids, in accordance with the requirements of the Procuring Entity. It also provides information on bid submission, eligibility check, opening and evaluation of bids, post-qualification, and on the award of contract.

1. **Scope of Bid**

The Procuring Entity, **Pili Water District** invites Bids for the **Supply of Labor, Equipment and Appurtenances for the Drilling of 300mm x 180m Production/Test Well**, with Project Identification Number **24-07-219**.

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

2. **Funding Information**

2.1. The GOP through the source of funding as indicated below for **CY 2024** in the amount of **Three Million Four Hundred Thousand Eight Hundred Forty-Three and 92/100 Pesos only (Php 3,400,843.92)**.

2.2. The source of funding is:

- a. GOCC, the Corporate Operating Budget.

3. **Bidding Requirements**

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

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

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

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

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

5. **Eligible Bidders**

- 5.1. Only Bids 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:

- a. Subcontracting is not allowed.

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address **Pili Water District, San Jose, Pili, Camarines Sur** 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 special PCAB License in case of Joint Ventures, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
- 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.
- 10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

11. Documents Comprising the Bid: Financial Component

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

12. Alternative Bids

Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic technical design as indicated in the drawings and

specifications. Unless there is a value engineering clause in the **BDS**, alternative Bids shall not be accepted.

13. Bid Prices

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

14. Bid and Payment Currencies

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

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

- a. 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 the date specified in the **BDS**. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

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

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

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

17. Deadline for Submission of Bids

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

18. Opening and Preliminary Examination of Bids

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

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

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

19. Detailed Evaluation and Comparison of Bids

19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*" using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of 2016 revised IRR of RA No. 9184.

19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 15 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

Notes on the Bid Data Sheet (BDS)

The Bid Data Sheet (BDS) consists of provisions that supplement, amend, or specify in detail, information, or requirements included in the ITB found in Section II, which are specific to each procurement.

This Section is intended to assist the Procuring Entity in providing the specific information in relation to corresponding clauses in the ITB and has to be prepared for each specific procurement.

The Procuring Entity should specify in the BDS information and requirements specific to the circumstances of the Procuring Entity, the processing of the procurement, and the bid evaluation criteria that will apply to the Bids. In preparing the BDS, the following aspects should be checked:

- a. Information that specifies and complements provisions of the ITB must be incorporated.
- b. Amendments and/or supplements, if any, to provisions of the ITB as necessitated by the circumstances of the specific procurement, must also be incorporated.

Bid Data Sheet

ITB Clause																											
5.2	<p>For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be:</p> <p style="margin-left: 40px;">a. Contracts for the supply and delivery of Supply of Labor, Equipment and Appurtenances for the Drilling of 300mm x 180m Production/Test Well.</p> <p style="margin-left: 40px;">b. Completed within the last five years prior to the deadline for the submission and receipt of bids.</p>																										
7.1	Subcontracting is not allowed.																										
10.3	<p>Must have a valid license or permit for the following:</p> <p style="margin-left: 40px;">a. PCAB License with Specialty-Well Drilling Work</p> <p style="margin-left: 40px;">b. NWRB Well Driller's Registration/Permit</p> <p style="margin-left: 40px;">c. Special License by a Joint Venture/Consortium (for joint ventures)</p>																										
10.4	<p>The key personnel must meet the required minimum years of experience set below:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: center;">Key Personnel</th> <th style="text-align: center;">General Experience</th> <th style="text-align: center;">Relevant Experience</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Project Engineer/Site Supervisor</td> <td style="text-align: center;">3-year experience in water resource/geotechnical engineering and drilling works</td> <td rowspan="3" style="text-align: center; vertical-align: middle;">any applicable relevant experience</td> </tr> <tr> <td style="text-align: center;">Chief Well Driller</td> <td style="text-align: center;">3-year experience in well drilling</td> </tr> <tr> <td style="text-align: center;">Safety Officer</td> <td style="text-align: center;">2-year experience in construction occupational safety and health</td> </tr> </tbody> </table>			Key Personnel	General Experience	Relevant Experience	Project Engineer/Site Supervisor	3-year experience in water resource/geotechnical engineering and drilling works	any applicable relevant experience	Chief Well Driller	3-year experience in well drilling	Safety Officer	2-year experience in construction occupational safety and health														
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	Borehole Camera	n/a	1
	Borehole Logging Equipment	n/a	1
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> <p>a. The amount of not less than P 68,016.88, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit;</p> <p>b. The amount of not less than P 170,042.20 if bid security is in Surety Bond.</p>		
19.2	Partial bids are not allowed.		
20	<p>a. Latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS) may be included in the submission of bid documents.</p> <p>b. Original copy or permits/licenses and other relevant eligibility documents shall be presented during conduct of post-qualification.</p>		
21	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.		

Section IV. General Conditions of Contract

Notes on the General Conditions of Contract

The General Conditions of Contract (GCC) in this Section, read in conjunction with the Special Conditions of Contract in Section V and other documents listed therein, should be a complete document expressing all the rights and obligations of the parties.

Matters governing performance of the Contractor, payments under the contract, or matters affecting the risks, rights, and obligations of the parties under the contract are included in the GCC and Special Conditions of Contract.

Any complementary information, which may be needed, shall be introduced only through the Special Conditions of Contract.

1. **Scope of Contract**

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

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

2. **Sectional Completion of Works**

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

3. **Possession of Site**

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

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

4. **The Contractor's Obligations**

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

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

5. **Performance Security**

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

6. Site Investigation Reports

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

7. Warranty

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

8. Liability of the Contractor

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

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

9. Termination for Other Causes

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

10. Dayworks

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

11. Program of Work

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

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

12. Instructions, Inspections and Audits

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

13. Advance Payment

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

14. Progress Payments

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

15. Operating and Maintenance Manuals

15.1. If required, the Contractor will provide “as built” Drawings and/or operating and maintenance manuals as specified in the **SCC**.

- 15.2. If the Contractor does not provide the Drawings and/or manuals by the dates stated above, or they do not receive the Procuring Entity's Representative's approval, the Procuring Entity's Representative may withhold the amount stated in the **SCC** from payments due to the Contractor.

Section V. Special Conditions of Contract

Notes on the Special Conditions of Contract

Similar to the BDS, the clauses in this Section are intended to assist the Procuring Entity in providing contract-specific information in relation to corresponding clauses in the GCC found in Section IV.

The Special Conditions of Contract (SCC) complement the GCC, specifying contractual requirements linked to the special circumstances of the Procuring Entity, the Procuring Entity's country, the sector, and the Works procured. In preparing this Section, the following aspects should be checked:

- a. Information that complements provisions of the GCC must be incorporated.
- b. Amendments and/or supplements to provisions of the GCC as necessitated by the circumstances of the specific purchase, must also be incorporated.

However, no special condition which defeats or negates the general intent and purpose of the provisions of the GCC should be incorporated herein.

Special Conditions of Contract

GCC Clause	
2	The Intended Completion Date is within one hundred twenty (120) calendar days from Start Date.
3.1	The Procuring Entity shall give possession of all parts of the Site to the Contractor immediately after the issuance of the Notice to Proceed until the date of its termination and/or project completion.
6	The prospective bidder shall submit the Certificate of Site Inspection issued by the District upon submission of bid proposal.
7.2	Warranty period is Five (5) years from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity.
10	Day works are applicable at the rate shown in the Contractor's original Bid.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within 10 days of delivery of the Notice of Award.
11.2	The amount to be withheld for late submission of an updated Program of Work is P10,000.00 .
13	The amount of the advance payment is 15% of the total contract price .
14	No further instructions.
15.1	The date by which "as built" drawings are required is 10 days upon completion of the project/issuance of certificate of completion of works.
15.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is P10,000.00 .

Section VI. Specifications

Notes on Specifications

A set of precise and clear specifications is a prerequisite for Bidders to respond realistically and competitively to the requirements of the Procuring Entity without qualifying or conditioning their Bids. In the context of international competitive bidding, the specifications must be drafted to permit the widest possible competition and, at the same time, present a clear statement of the required standards of workmanship, materials, and performance of the goods and services to be procured. Only if this is done will the objectives of economy, efficiency, and fairness in procurement be realized, responsiveness of Bids be ensured, and the subsequent task of bid evaluation facilitated. The specifications should require that all goods and materials to be incorporated in the Works be new, unused, of the most recent or current models, and incorporate all recent improvements in design and materials unless provided otherwise in the Contract.

Samples of specifications from previous similar projects are useful in this respect. The use of metric units is mandatory. Most specifications are normally written specially by the Procuring Entity or its representative to suit the Works at hand. There is no standard set of Specifications for universal application in all sectors in all regions, but there are established principles and practices, which are reflected in these PBDs.

There are considerable advantages in standardizing General Specifications for repetitive Works in recognized public sectors, such as highways, ports, railways, urban housing, irrigation, and water supply, in the same country or region where similar conditions prevail. The General Specifications should cover all classes of workmanship, materials, and equipment commonly involved in construction, although not necessarily to be used in a particular Works Contract. Deletions or addenda should then adapt the General Specifications to the particular Works.

Care must be taken in drafting specifications to ensure that they are not restrictive. In the specification of standards for goods, materials, and workmanship, recognized international standards should be used as much as possible. Where other particular standards are used, whether national standards or other standards, the specifications should state that goods, materials, and workmanship that meet other authoritative standards, and which ensure substantially equal or higher quality than the standards mentioned, will also be acceptable. The following clause may be inserted in the SCC.

Sample Clause: Equivalency of Standards and Codes

Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national, or relate to a particular country or region, other authoritative standards that ensure a substantially equal or higher quality than the standards and codes specified will be accepted

subject to the Procuring Entity's Representative's prior review and written consent. Differences between the standards specified and the proposed alternative standards shall be fully described in writing by the Contractor and submitted to the Procuring Entity's Representative at least twenty-eight (28) days prior to the date when the Contractor desires the Procuring Entity's Representative's consent. In the event the Procuring Entity's Representative determines that such proposed deviations do not ensure substantially equal or higher quality, the Contractor shall comply with the standards specified in the documents.

These notes are intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They should not be included in the final Bidding Documents.

CONTRACT SPECIFICATIONS

PROJECT TITLE:

DRILLING OF ONE (1) 0.30M X 180M EXPLORATORY/PRODUCTION WELL

PROJECT LOCATION:

ZONE 7, BINANUAAANAN, PILI CAMARINES SUR

1.0 SCOPE OF WORK

The work includes the **Drilling of One (1) Exploratory/Production Well**.

2.0 BIDDER'S QUALIFICATION

The bidder must be an accredited well driller of **National Water Resources Board (NWRB)** and shall attached a photocopy of the latest Certificate of Well Driller's Registration.

3.0 SAFETY AND HEALTH PROGRAMS

As part of Pili Water District (PIWAD) advocacy on zero accident and healthy workplace, the contractor is required to supply personal protective equipment (PPE) in proportion to the assigned actual workers (i.e. hard hat, rubber boots, ear muffs and hand gloves) to be use during their work in the area with strict observance of safety and health program.

4.0 MANPOWER REQUIREMENTS

Quantity	Description
1	Project Engineer/Site Supervisor
1	Chief Well Driller
1	Safety Officer
2	Welder/Pipefitter
2	Skilled Worker
4	Common Laborer/Helper

5.0 GENERAL

5.1 Definition of Terms

Alignment (well alignment) A measure of the “vertical straightness” of a well. It is the horizontal distance between the well's actual centerline and the true vertical centerline from the top of the hole.

Annulus (Annular space) The space between a drilled hole and the well casing. Sealing the annulus can reduce the chances of surface contaminants reaching groundwater.

Bentonite A colloidal clay of volcanic origin used as the main ingredient in drilling fluid (drilling mud) used in rotary well drilling processes and also used as a grouting medium to seal well casing in the drilled hole.

Borehole means any drilled section of boring before completion as defined in well below.

Blank Casing means non-slotted or non-perforated lining tubes.

Development Equipment means high velocity jetting tool, surge plunger and all other equipment needed to develop the well.

Diameter mean nominal diameters unless otherwise stated.

Drilling Unit is an integrated system used to drill wells such as oil or water wells, or holes for construction purposes, water withdrawal for domestic, municipal and industrial uses, drilled into the earth's surface. It includes components such as, derricks, drill rod/string, drill bit, mud pumps, mud tanks, and power generation equipment.

Final Well Design means the drawing and description prepared by the Engineer upon completion of the drilling of the pilot hole and geophysical borehole logging specifying the final well construction.

Lining Materials means any casing, screen, slotted lining or perforated lining tube whether permanently or temporarily installed in the borehole.

pH A measure of the relative acidity or alkalinity of water. Water with a pH of 7 is neutral; lower pH levels indicate increasing acidity, while pH levels higher than 7 indicate increasingly basic solutions. The range is 1 – 14.

MBGL meters below ground level.

Pumping Test. Controlled pumping with associated measurements of water level changes that are used to determine aquifer characteristics and the hydraulic properties of wells.

Pumping Unit is a combination of mechanical and electrical equipment used to convey water from the well. Typical pumping unit used in drilling are Submersible Turbine Pump and Submersible Pump.

Rotary Drilling A well drilling method achieved by the rotary action of a drill bit. The ground-up rock is removed by circulating drilling mud which may be forced down the drill pipe and out via the annular space between the drill pipe and the hole. If casing is installed as the drilling proceed then reverse-rotary drilling may be used

with the drilling fluid being pumped down the outside of the drill pipe and returned to the surface upwards through the drill pipe.

Screen A cylinder of steel or plastic material used to allow water to enter a well while preventing sediment or rock particles from entering the well. A screen operates something like a sieve. Well screens may be wire wrapped, louver or perforated, and can be made from different materials and at different opening sizes. The selection of well screen design and opening size may depend on characteristics of the geologic formation, required yield and the thickness of the aquifer.

Tentative Well Design means the contract drawing showing the estimated quantities of the work.

Well Screen A steel or plastic device that admits water to a well from the surrounding geologic formations but which prevents or reduces the likelihood of sediment entering the well. Design and selection of well screens is based of geologic and hydraulic criteria.

Well A hole in the ground made to gain access to an aquifer to obtain water for economic use.

5.2 Technical Standards

All materials or workmanship shall comply with the specifications. Other standards equally or superior to those enumerated in this specification, shall be acceptable, subject to the approval of the Engineer

5.3 Water and Power Supply

In the absence of adequate quantities of water or illumination required for drilling at the drilling site, the contractor shall make such arrangements including the provision for mobile tanks or fixed as may be necessary to ensure a supply of sufficient water for drilling operations. The Contractor shall make an arrangement as may be necessary for the connection of power supply at site. Payments for the provision of electrical power and water supplies shall be deemed to be included in the rates entered in the Bid Form for setting up equipment at the site, drilling rates and rates entered for the operation of pumping unit

5.4 Storage of Inflammables

The Contractor shall comply with all local authority regulations applicable to the use and storage of diesel oils, petrol, paraffin and other inflammable fuels used by him on the site, and shall ensure that adequate precautions are taken against fire.

5.5 Boundaries of Works

The District shall provide land or rights-of-way for the work specified in this Contract and make suitable provisions for ingress and egress, and the Contractor shall not enter or occupy with men, tools, equipment or material, any ground outside the property of the District without the written consent of the owner of such property. Other Contractors and employees of the District may, for all necessary

purposes, enter upon the work premises used by the Contractor, and the Contractor shall conduct his work so as not to impede unnecessarily any work being done by others on or adjacent to the site.

5.6 Access Roads

Construction or improvements of access roads to the wells shall, unless otherwise agreed, be done by the Contractor at his own cost, which is deemed to be included in the contract sum. The access road shall be kept in proper condition during the entire construction period.

5.7 Protection of Project Site

Except as otherwise provided herein, the Contractor shall protect all structures, walks, pipelines, trees, shrubberies, lawns, etc., during the progress of his work, shall remove from the site all drill cuttings, debris, and unused materials, and shall upon the completion of the work restore the site as nearly as possible to its original condition, including removal of access tracks and the replacement, at the Contractor's sole expense of any facility or landscaping which has been damaged beyond restoration to its original condition all to the satisfaction of the Engineer. Water pumped from the well shall be to a place approved by the Engineer where it will be possible to dispose the water without damage to property or creation of a nuisance.

5.8 Site to be Kept Clean and Tidy

The Contractor shall at all-time keep the site and all working areas in a tidy and workmanship condition and free from rubbish and waste materials.

5.9 Temporary Facilities

The Contractor shall provide at the site of the works such temporary buildings, tanks, workshop, etc., as may be necessary and proper for his general use in connection with the works, and for the use of persons employed by him. The nature of the buildings, tanks, etc. and the positioning of them shall be subject to the prior approval of the Engineer and the relevant authorities.

The Contractor shall also provide the District's Resident Engineer with a temporary office at the project work site. The said office shall be weatherproof building field office.

5.10 Shop Drawings

- 5.10.1 The Contractor shall, if requested by the Engineer prior to start of each operation, produce for the approval a shop drawings showing details of technical operations such as test of plumbness and alignment, the method of the slotted casing production, if so required, the methods of placement of formation stabilizer and/ or cement grout, the arrangement for well testing, the method for well development and all other drawings

pertinent to the well drilling, well construction operations and well development as requested by the Engineer.

5.10.2 Shop drawing shall be completed with respect to the dimensions, design criteria, materials, method of construction and the like to enable the Engineer to review the information as required.

5.11 Well Head Protection

5.11.1 At all times during the progress of the work, the Contractor shall protect the well in such manner as to effectively prevent either tampering with the well or the entrance of foreign matter into it, and upon its completion he shall provide and install a well head cap satisfactory to the Engineer.

5.11.2 In the event that the well becomes contaminated or that water having undesirable physical or chemical characteristics has entered the well due to the negligence of the Contractor, he shall at its own expense perform such work or supply casings, seals, sterilizing agents or other materials as may be necessary to eliminate the contaminations or to exclude any undesirable water in the well.

5.12 Transport of Personnel and Equipment

The Contractor shall supply and operate all transport required for transporting its employees, materials and equipment. The cost of movement of personnel, materials and equipment shall be included in the rates given for drilling development and pump operation.

5.13 Site Preparation and Restoration

5.13.1 The Contractor shall prepare the site, provide all necessary tanks and pits and make all necessary arrangements for erecting and dismantling the drilling unit and shall reinstate the site on completion of such phase of work to the satisfaction of the Engineer.

5.13.2 Payment shall be deemed to be included in the items entered in the Bid Form for erection and dismantling of drilling rigs.

6.0 WELL DRILLING

6.1 Tentative Well Design

Description	Details
Well Depth	180 meters (mbgl)
Well Casing Diameter	12 in (300 mm) Nominal Dia.; 9.0 mm wall thickness Spiral Welded Steel Pipe
Borehole Diameter	508 mm
Blank Casing	12” (300 mm) Nom. Diameter Spiral Welded Steel Pipe (supplied by the owner/District)
Water Well Screen	12” (300 mm) Nom. Diameter SS Water Well Screen (supplied by the owner/District)
Well Casing Centralizers	Placed every 12 meters

Gravel Packed Diameter	4-7 mm
Cement Grout	25 meters (mbgl)

6.2 Scope of Works

- 6.2.1 The Contractor shall provide and operate one or more mobile drilling unit required to complete the works within the specified contract period.
- 6.2.2 The Contractor shall provide all auxiliary equipment, tools, fuel, oil and lubricants; spare parts necessary to keep the drilling rig and appurtenances in continuous operations.
- 6.2.3 The Contractor shall be responsible for the temporary electrical and water service connection.

6.3 Equipment

- 6.3.1 The Contractor shall provide the following minimum equipment necessary for the completion of the contract/project.

Quantity	Unit	Description
1	unit	Rotary Drilling Rig with built-in Mud Pump
1	unit	100-300 cfm capacity Air Compressor
1	unit	Electric/Engine Drive Welding Machine
1	unit	Marsh Funnel
1	set	30-40 lps Submersible Pump and Motor set complete with riser pipe materials and appurtenances suitable for 60 meters pump setting.
1	unit	Oxy-Acetylene cutting tools
1	unit	Portable Standby generator Set
1	unit	Borehole Camera
1	unit	Borehole Logging Equipment

- 6.3.2 The Drilling Rig together with all auxiliary equipment and operations personnel shall be defined as the drilling unit(s).
- 6.3.3 The Drilling Rigs shall have sufficient capacity to drill the specified borehole diameter and depth specified in the tentative well design including a 25% allowable increase in depth.

6.4 Drilling Methods

- 6.4.1 All drilling shall, unless otherwise specified in the special provision of the contract, be performed with the rotary drilling method.
- 6.4.2 The contractor shall to such depth and diameter, which shall enable an easy installation of well casing and placement of gravel pack enveloped with a uniform thickness. The Contractor shall, during drilling, ensure that the natural permeability of the yielding strata shall not be disturb or irreversibly reduced by the method employed.

6.5 Strata Sampling

- 6.5.1 Strata samples (washed and unwashed) shall be taken at one (1) meter intervals or more frequent if the formation penetrated changes. Samples shall be placed in plastic or other appropriate bags on which or in which the sampling depth and the date of sampling is written in such a manner that it is permanently readable.
- 6.5.2 The sampling procedure must provide that all the fraction of the penetrated strata is present in the sample.
- 6.5.3 Each sample shall be placed in a wooden box with space for storage of one sample and the sampling depth shall be written on the box.
- 6.5.4 The record of samples taken with the details described above shall be submitted to the Engineer every day.
- 6.5.5 The failure on the part of the Contractor to obtain, preserve and deliver samples or records, satisfactory to the Engineer, shall be considered as actual damage to the Owner. Such a failure authorized the Engineer to retain from money due or to become due to the Contractor the sum of ONE THOUSAND PESOS (P 1,000.00) as liquidated damages for each sample that the contractor shall fail to obtain, preserve or deliver, or for each of pipe not properly measured and recorded in the order in which it was placed in the well. In the event that, in the opinion of the Engineer, the failure of the Contractor to take and preserve the samples may affect the proper design of the well, the Contractor may be required to perform such work as the Engineer deems necessary to remedy such failure at no cost to the Owner. It is understood that the liquidated damages herein provided are fixed, agreed and not by way of penalty; and that the District shall not be required to prove that he has incurred actual damages.

6.6 Drilling Mud

- 6.6.1 Bentonites, if used, shall be of premium quality in accordance with API Standard 13A with 150 kg/cu-m of make-up water yielding a mud with a viscosity of between 35 and 40 seconds using a Marsh funnel and a mud weight of less than 1.10 kg/l (9.2 lbs/US gal.).
- 6.6.2 Make-up water shall be treated with caustic soda (soda ash) to maintain the pH between 8.0 and 9.0 prior to mixing mud.
- 6.6.3 During drilling with mud, the Contractor shall perform hourly measurements of the following mud characteristics:
 - a. pH value
 - b. Funnel viscosity
 - c. Specific gravity
 - d. Sand content
 - e. Filtration loss
 - f. Filter cake thickness
 - g. Mud viscosity
- 6.6.4 The drilling Contractor shall maintain a drilling fluid log showing the date, time depth, Marsh Funnel viscosity, drilling fluid weight and pH, and all shall record any drilling fluid additives used, including time

introduction as well as other pertinent comments. The recorded mud characteristics shall not exceed the following values, without prior approval of the Engineer:

Specific Gravity	9.5 lb/gal
Sand content	4%
Filtration loss	10ml
Filter cake	1.5 mm

6.6.5 It is the Contractor's responsibility to assure that equipment for measuring fluid properties shall be available at the drilling site.

7.0 WORKING HOURS

All works initiated from the start of the drilling of borehole until completion shall 8-24 hours/day.

8.0 GEOPHYSICAL BOREHOLE LOGGING

8.1 Scope

The Contractor shall perform geophysical logging as specified in the Special Provisions.

8.2 Equipment

8.2.1 The geophysical logs may be recorded either by automatic recording on a chart strip or by manual reading of recorded values. In case the logs are recorded by the manual method, readings shall be taken per min. 1.0 m of borehole length.

8.2.2 The recorded logs shall be submitted to the Engineer immediately upon completion of logging as plots of recorded characteristics versus depth for his approval. In case of disapproval by the Engineer, the logs shall be repeated immediately.

8.3 Logs

Geophysical logging shall comprise the following logs:

- a. Resistivity log (16" and 64")
- b. Spontaneous/Self Potential (SP)

9.0 WELL CASING and WELL SCREEN

9.1 Scope

The Contractor shall install the well casing and screens provided by the District/owner. In the event of failure seen by the contractor from any of the materials supplied by the owner, the contractor shall call the attention of the Engineer for replacement.

9.2 Temporary Casing

The Contractor shall provide such temporary casing as may be necessary to prevent the collapse of any formation during the drilling operation to allow the well to be sunk to the specified depth and to allow the insertion of permanent lining material as required. The Contractor shall remove the temporary casing before completing the well, unless otherwise specified in these documents.

9.3 Lining Installation

- 9.3.1 Lining materials shall be assembled and located in the well at the required depth in a continuous operation. The lining material shall be set concentric within the borehole by centralizing bars unless otherwise agreed with the Engineer.
- 9.3.2 If the lining jams or is lost before it is set to the specified depth, the Contractor shall endeavor to remove the lining material from the well or, if unable to effect removal, shall re-drill the well and replace the lining material at his own expense.

9.4 Lining Materials Accessories

- 9.4.1 The Contractor shall provide as necessary the following accessories to set the lining materials to the required depth:
 - a. Centralizers to be affixed to the lining material at intervals of 12 meters to locate the lining material in the center of the drill hole;
 - b. Supporting clamps, equipment and tools;
 - c. Reducing cones and connecting piece;
 - d. Casing hangers;
 - e. All other necessary equipment.

9.5 Testing for Alignment and Plumbness

- 9.5.1 All boreholes shall be constructed, plumb and true to line as defined herein. To demonstrate the compliance of his work with the requirement, the Contractor shall furnish all labor, tools and equipment and shall provide the detailed drawings and the description of the tests to the satisfaction of the Engineer.
- 9.5.2 Tests for plumbness and alignment must be made after the complete construction of the well and before its acceptance. The Contractor, however, may make additional tests, during the performance of the work. No specific payments shall be made for making these tests. Should the results of the test for plumbness and alignment show that plumb bob of dummy fails to move freely throughout the length of the lining or borehole to a depth of the lowest anticipated pump setting and should the well vary from the vertical in excess of two thirds of the smallest inside diameter of that part of the well being tested or beyond the limitations of this test, the plumbness and alignment of the well shall be corrected by the Contractor at his own expense.

Should the Contractor fail to correct such faulty alignment of plumbness, the Engineer may refuse to accept the well and the Contractor shall drill a new well without charge to the District.

10.0 FORMATION STABILIZER (GRAVEL PACK)

10.1 Scope

The Contractor shall provide and install formation stabilizer, or gravel pack if specified in the Contract Drawings and the Special Provisions.

10.2 Materials

10.2.1 The formation stabilizer/gravel pack material shall consist of well-rounded, water worn siliceous grains. Angular chippings or road stone must under no circumstances be used as formation stabilizer/gravel pack material.

10.2.2 The Contractor shall, during the mobilization period, submit to the Engineer for his approval, samples of the formation stabilizer he proposes to use, stating the source of the formation stabilizer, quantities available, rate of delivery and any other information requested by the Engineer.

10.2.3 The physical characteristics of the filter pack shall conform to AWWA A-100-84 Section 6.3.1 to 6.3.6 or latest edition. The grading of the filter shall be determined from sieve analysis of the aquifer materials. The 85-90 percent retained size of aquifer sample having the finest grain size distribution as approved by the Engineer. The uniformity coefficient of the filter packed shall not exceed 2.50.

10.3 Method of Installation

10.3.1 The method of placing the formation stabilizer/gravel pack in the annulus shall be such that separation of the gravel and bridging is avoided.

10.3.2 The formation/stabilizer/gravel pack shall immediately upon completion of lining installation, be placed in the annulus between the borehole and the lining, in the screened section(s) of the lining, as specified in the final well design.

10.3.3 Since the borehole shall be drilled by the rotary method, installation of formation stabilizer/gravel pack shall be done by circulation of the drilling mud.

11.0 WELL DEVELOPMENT

11.1 Scope

12.1.1 The scope shall consist of de-flocculation, surging with plunger and bailing, water jetting and airlifting.

- 12.1.2 The Contractor shall furnish compressors, surge plungers, jetting tools, electric generators, chemical and any other equipment required for satisfactory well development as directed by the Engineer.
- 12.1.3 Development shall, since the rotary drilling method is applied, comprise de-flocculation, high velocity jetting in continuous slot screens, surging with plunger in slotted screens, unless otherwise, specified in the Special Provisions.

11.2 Expected Yield

The Contractor shall develop the well to its maximum expected yield, as specified in the Special Provisions.

11.3 Surging with Plunger

- 11.3.1 Upon completion of installation of lining or formation stabilizer/gravel pack, the Contractor shall develop the well by mechanical surging with a valve-type surge plunger approved by the Engineer
- 11.3.2 Before start of surging and with one-hour intervals during the surging operation, the depth to the well bottom and to top of gravel pack shall be recorded.
- 11.3.3 Surging shall be continued until accumulation of sediments in the sump pipe, during an hour period surging operation, is negligible.

11.4 De-flocculation

- 11.4.1 Upon completion of installation of lining or formation stabilizer/gravel pack, the drilling mud shall immediately be displaced from the well by pumping clean water into the sump pipe.
- 11.4.2 Mud displacement shall immediately be followed by injection and/or jetting through the screened section with polyphosphate solution to deflocculates the mud cake on the borehole wall. The concentration of the polyphosphate solution shall be 3.0 percent by weight of the quantity of water in the borehole. The well shall then be left for 12-24 hours before developing is continued, to allow the polyphosphate to react; however, if the drilling mud viscosity during drilling had been or had exceeded 40, the percentage of the polyphosphate solution shall be increased proportionately with the increase of viscosity.

11.5 High Velocity Water Jetting

- 11.5.1 After the de-flocculation material has been allowed to work for 12-24 hours, all sections screened with continuous slot screens shall be developed by high velocity jetting.
- 11.5.2 The jetting tool shall be equipped with two or four nozzles. The nozzle design shall be such that it produces a concentrated jetting action. The tool shall be presented to the Engineer for approval before start of drilling operation.
- 11.5.3 The jetting tool shall be supplied with water through a high-pressure pump capable of producing a nozzle velocity of 40 meter per second.

The pump shall be equipped with suitable pressure gauge on the discharge side to facilitate monitoring of nozzle velocity.

- 11.5.4 The development shall be carried out by slowly rotating the jetting tool and gradually lowering it in order to cover the entire surface of the screen.
- 11.5.5 At the same time as the high velocity jetting is performed, the well shall be discharged with a discharge rate slightly higher than the discharge rate from the jetting tool.
- 11.5.6 Each section of the screen shall be jetted until the return water is free from drilling mud, but no section shall be jetted less than 15 minutes per meter of screen.

11.6 Air Lift Method

- 11.6.1 The contractor shall use the “open casing or Back-blow” method.
- 11.6.2 The following tools and devices are needed for well development by compressed air:
 - a. Air compressor and tank required of size.
 - b. Educator pipe and airline, with means for raising and lowering each line independently of each other.
 - c. Flexible high pressure air hose to permit rising and lowering of the airline.
 - d. Quick opening valve at the outlet.
 - e. Pressure gauges and relief valves to safeguard against accidental overloading.

11.7 Well Cleaning

Upon completion of the development operations, the Contractor shall demonstrate to the satisfaction of the Engineer that the bottom of the well is clear of all sand, mud and other foreign materials.

11.8 Freedom from Sand

- 11.8.1 The Contractor shall develop the well by the methods specified until the water pumped from the well is substantially free from sand and until the turbidity is less than 5 on the Silica Scale described in the Standard Methods of Water Analysis (latest edition as published by AWWA, APHA and WPCT).
- 11.8.2 The water pumped from the well shall not contain an amount of fine material in excess of 1.0 mg per liter when the well is pumped at its maximum expected yield. The Contractor shall furnish the equipment for measurement of the sand content.

12.0 DOWN THE HOLE CAMERA LOGGING

After the well development, the contractor shall perform down-the-hole camera to ensure that the well is clear of any mud, bentonite and other materials for the satisfaction of the owner. Any problem that may occur, the contractor shall repeat the well rehabilitation at contractor’s expense.

13.0 WELL DEVELOPMENT ACCEPTANCE

- 13.1 The development by the specified methods shall be repeated and continued until the well is thoroughly developed in accordance with the criteria specified.
- 13.2 If the well yield after the well has been confirmed sand-free is still below the yield, which is considered acceptable for the penetrated aquifer, then the Engineer may instruct the Contractor to perform further development.

13.0 WELL TESTING

13.1 Scope

The Contractor shall provide all personnel and labor, instrumentation and water level indicators and operate a pumping unit for the following purposes:

- a. Step-drawdown pumping tests on the completed well in accordance with the standard methods or as directed by the Engineer.
- b. Constant discharge pumping test on the completed well in accordance with the standard methods or as directed by the Engineer.

13.2 Equipment Capacity

13.2.0 The Contractor shall provide and operate pumping machinery/equipment capable of carrying out the specified pumping tests and shall provide adequate controls to allow discharge rates to be kept constant at varying pumping water levels and to permit pumping with a variation of not more than 5% of the designated discharge rate during any period of yield or aquifer testing.

13.2.1 The pumping Unit set shall be able to deliver a minimum discharge rate of 20 lps at maximum pump setting of 80 meters or as directed by the Engineer.

13.3 Equipment Operation

13.3.0 The Contractor shall supply and operate all equipment and accessories necessary for installation and removal of pumps.

13.3.1 The Contractor shall maintain on site sufficient fuels, lubricants, spares and other accessories needed to run the pumping unit for whatever period may be specified by the Engineer.

13.3.2 The Contractor shall provide sufficient competent personnel including a qualified fitter and electrician, as may be necessary to install and operate the Pumping Unit.

13.4 Control of Discharge Rate

The Contractor shall, during the pumping tests, provide a suitable gate valve on the discharge pipeline to facilitate easy control of the discharge rate.

13.5 Water Level Sounding Pipe

13.5.0 The Contractor shall provide and install a temporary tube of at least one (1) inches diameter from the top of the well to 2 m above the pump bowl assembly to facilitate easy measurements of water level. The tube shall be open only at the bottom and top.

13.5.1 Payments for providing, installing and removing the tube shall be deemed to be included in the rates given for pumping tests.

13.6 Pumping Procedures

The Engineer will determine the pumping procedure necessary to obtain the objectives of this Contract.

13.7 Suspension of Pumping

If the Engineer considers that the absence or condition of any equipment, personnel, fuel, lubricants or accessories will prejudice the quality of data obtained from any pumping test, he may suspend the work in accordance with the provisions of the conditions of Contract.

13.8 Equipment Breakdown during Pumping

13.8.0 The pumping must be continuous and at a constant rate during the pumping tests.

13.8.1 The Engineer will instruct the Contractor as to the expected maximum duration of each pumping test before start to each test.

13.8.2 If pumping is interrupted or the discharge rate fluctuates by more than 5% of the designated discharge rate, the test may be repeated after a period of recovery determined by the Engineer.

13.8.3 In any pumping test is interrupted because of equipment breakdown or inadequate supervision or discharge control, no payments will be made for any pumping period before recommencing the test.

13.9 Duration of Tests

13.9.0 The step drawdown pumping tests shall be performed on 5 steps with duration of 1 hour each.

13.9.1 The constant discharge pumping tests shall be performed for a period of Three (3) days or 72 hours, unless otherwise specified in the special provisions or unless otherwise instructed by the Engineer.

13.10 Temporary Pipeline

The Contractor shall provide a temporary pipeline as directed by the Engineer for the discharge from pumping tests and for clearance to a suitable watercourse or drain. Under certain circumstances when re-infiltration cannot be avoided or it is costly to provide for this condition, the Engineer shall decide to what distance from the well water may be discharge on the ground.

14.0 CEMENT GROUTING

14.1 Scope

The Contractor shall, unless otherwise specified in the special provisions, provide the cement and mixing equipment required for the mixing of the grouting indicated in the Tentative Well Design and shall place the cement grout as specified.

14.2 Grouting Materials

Cement grout shall consist of a mixture of 95 % Portland Cement, 5% Bentonite, Sand and clean water, mixed in the proportion of 52.50 kilogram of Portland Cement/Bentonite to maximum 30 liters of water. All cement shall, unless otherwise specified in the Contract Documents, conform to the “Specifications for Portland Cement” (ASTM C150 latest revision).

14.3 Method and Placing of Grout Materials

The method for placing the grout from the bottom of the casing/hole/annulus to be grouted, to the surface shall be to the approval of the Engineer. Flushing of the annular space with fluid to assure the space is open and to remove loose material will be required by the contractor before grouting will commence. Any grouting operation shall be continuous and before starting, sufficient grout shall be mixed to complete the whole operation. During the grouting operation, the mixed grout shall be continuously stirred. The Contractor shall provide such tanks, hoppers and other equipment as may be necessary to meet these requirements.

14.4 Curing Time

No work will be allowed on the well within a period after completion of grouting unless quick setting cement is used. In such case, the idle period may be reduced subject to the Engineer’s prior approval.

15.0 WELL COMPLETION

15.1 Scope

The Contractor shall provide and operate all equipment necessary to restore the site as near as possible to its condition before commencement of drilling and shall furnish and install a well head cap as specified in the Contract Drawings.

15.2 Site Restoration

The site shall be restored to a condition as neatly possible to that, which existed before the well drilling and testing activities commenced. This work shall include, but not limited to restoration of fences and structures, removal of drill cuttings, leveling of the disturbed ground surfaces and replacement or compensation for the destroyed plants and landscaping.

15.3 Well Head Completion

The well head shall be completed with a well head assembly fully welded to the upper casing as well as a water level sounding tube with screw cap in order to prevent any unauthorized tampering of the well.

16.0 SUBMITTALS OF REPORTS AND BOREHOLE DATA

17.1 The Contractor shall submit to the Engineer daily records in duplicate containing the following information:

- a. Site
- b. Date
- c. Description of each stratum encountered
- d. Depth below ground level of its stratum
- e. Depth and details of all disturbed samples

17.2 The Contractor will be required to keep a record of penetration rate, mud losses and mud conditions.

17.3 At the end of the well construction and before final payments is made, the Contractor shall submit to the Engineer a report containing the following information:

- a. Total depth of the well.
- b. Description of the strata encountered.
- c. The sizes and the lengths/specifications of the casing installed.
- d. The date of the start and the completion of the well construction.
- e. The locations and the description of the casing perforations or the well screen placement.
- f. The locations of the gravel, the size of gravel, if applicable, and the amount of cement grout installed.
- g. Records of discharge rates and drawdown during well development together with description of the methods of development.
- h. The well yield (expressed as discharge rate and drawdown), the dates and the duration of the test(s).
- i. The methods of measuring the discharge rate and the drawdown.

17.0 DRAWINGS

17.1 Intent of Specifications and Drawings

17.1.0 The intent of the Specifications and Drawings is for the Contractor to furnish all the required labor, materials, equipment and services, unless otherwise specifically provided.

17.1.1 The Specifications and Drawings are complementary and what is called for in one shall be as binding as if called for in both.

17.1.2 Any discrepancies, errors or omissions found in the Specifications of Drawings shall be reported in writing within ten (10) days from discovery to the Engineer who will issue the correction in writing within the same period. The Contractor shall not take advantage of any such

discrepancies, errors or omissions, but shall comply with any corrective measures regarding the same prescribed by the Engineer.

- 17.1.3 In case of conflict between the Specifications and the Drawings, the Specifications shall govern over the Drawings. In case of conflict between the General Conditions and the special Provisions and the Technical Specifications of the Specifications, the Special Provisions and the Technical Specifications shall govern over the General Conditions. In case of conflict between the Special Provisions and Technical Specifications of the Specifications, the Special Provisions shall govern over the technical Specifications. In case conflict between the contract agreement and the General Conditions, the Contract Agreement shall govern over the General Conditions.

17.2 Shop Drawings

- 17.2.0 Whenever called for in these Specifications or in the drawings, or where required by the Engineer, the Contractor shall furnish the District for review three (3) prints of each shop drawing. The term “shop drawing” as used herein shall be understood to include detail design calculations, fabrications and installation drawings, lists, graphs, operating instructions, etc. Shop drawings shall be submitted to the District for review/approval within fifteen (15) days from receipt of the Notice of Award (NOA), unless otherwise extended in writing by the District.
- 17.2.1 All shop drawing submittals shall be accompanied by a transmittal form using the format bound with the Contract Documents, if one is included. Any shop drawing submittal not accompanied by such a form, or where all applicable items on the form are not completed, will be returned for resubmittal. The Contractor may authorize a materials or equipment supplier to deal directly with the District with regard to shop drawings, however, ultimate responsibility for the accuracy and completeness of the information contained in the submittal shall remain with the Contractor.
- 17.2.2 A separate transmittal form shall be used for each specific item or class of material or equipment for which a submittal is required. Transmittal of shop drawings on various items using a single “package” or are so functionally related that expediency indicates review of the group or package as a whole. At his option, the Contractor or Supplier may obtain from the District quantities of the shop drawing transmittal form at reproduction cost.
- 17.2.3 Within five (5) calendar days after receipt of said prints, the Owner will return prints of each drawing to the contractor with his comments noted thereon. Whenever a re-submittal is required, the Contractor shall make a complete and acceptable submittal to the Owner within ten (10) days from receipt of the returned shop drawings. Non-compliance hereof will give rise to the Owner’s right to either (a) cancel the award; or (b) withhold the money due the Contractor to cover additional costs of the Engineer’s review beyond the second submission. Such failure may be considered a factor against the contractor’s competence in future biddings to be conducted by the District.

- 17.2.4 If three (3) prints of the drawings are returned to the contractor marked “NO EXCEPTIONS TAKEN”, formal revision of said drawings will not be required.
- 17.2.5 If three (3) prints of the drawings are returned to the Contractor marked “MAKE CORRECTIONS NOTED”, formal revision of said drawings will not be required.
- 17.2.6 If one (1) print of the drawings is returned to the Contractor marked “AMEND-RESUBMIT”, the Contractor shall revise the said drawing and shall resubmit three (3) copies of said revised drawing to the District.
- 17.2.7 If one (1) print of the drawings is returned to the Contractor marked “REJECTED-RESUBMIT”, the Contractor shall revise the said drawings and shall resubmit three (3) copies of said revised drawing to the District.
- 17.2.8 Fabrication of any item shall not commence before the District has reviewed/examined the pertinent shop drawings and returned copies to the Supplier marked either “NO EXCEPTIONS TAKEN” or “MAKE CORRECTIONS NOTED”. Revisions indicated on shop drawings shall be considered as changes necessary to meet the requirements of the Contract Drawings and Specifications and shall not be taken as the basis of claims for extra work.
- 17.2.9 The Contractor shall have no claim for damages or extension of time due to any delay resulting from the Contractor revisions of shop drawings (unless reviewed by the District of said drawings is delayed beyond a reasonable period of time and unless the Contractor can establish that the District’s delay in review actually resulted in a delay in the Contractor’s Construction Schedule).
- 17.2.10 The review of said drawings by the District shall be limited to checking for general agreement with the specifications and drawings, and shall in no way relieve the Contractor of the responsibility for errors or omissions contained therein nor shall review operate to waive or modify any provision contained in Specifications or Contract Drawings. Fabricating dimensions, quantities of material, applicable code requirements shall be the Contractor’s responsibility.

18.0 REFERENCE TO PROPRIETARY PRODUCTS

Where references to proprietary products appear in the specifications or drawings, it is for the purpose of establishing an acceptable standard of quality or design but no guarantee is given that said referenced manufacturer’s products will meet all contract requirements without modifications. Unless a substitute is expressly prohibited, the Contractor may request approval of a substitute for any such proprietary product.

Such request must be in writing and must include descriptive literature, specifications, test reports of samples, as appropriate, to enable the District to determine the acceptability of the product proposed for substitution. No substitute product shall be used in the work until written approval has been received from the District. All costs involved in making laboratory tests of the

samples submitted as substitute for the specified materials shall be borne by the Contractor.

19.0 SPECIFICATIONS AND DRAWINGS FURNISHED TO THE CONTRACTOR

The Owner will furnish the Contractor with two (2) sets of specifications together with reduced drawings (if any) and two (2) sets full-scale Drawings. Additional quantities of Specifications and Drawings will be furnished at no reproduction cost.

20.0 AS BUILT DRAWINGS

The Contractor shall maintain at least one (1) set of whiteprints/plans of all works at the job site. These prints shall be marked and updated to indicate current job progress and shall show deviations from the construction drawings. After final inspection, the Contractor shall transfer all as-built information to a set of CAD FILE/reproducible tracings that shall be delivered to the Engineer prior to acceptance of the project.

21.0 GENERAL PROVISIONS

21.1 Water Level Sounding

The Contractor shall provide a functioning and accurate water sounding instrument acceptable to the Engineer to measure the water level during the drilling, development and testing of the well. Failure to provide such will subject the Contractor to a penalty of P1,000.00 per day from the date of the notice issued by the Engineer until said instrument has been completed and shall be deducted from the monthly billing.

21.2 Well Drilling Equipment

The Contractor shall provide and operate either one (1) mud or air rotary drilling rig and includes all auxiliary equipment necessary to complete the work within the contract period.

All equipment required for the completion of the project is subject for inspection/evaluation during post qualification. List of equipment must be included in the submitted bidding documents.

21.3 Drilling Method

The drilling shall be performed with either mud or air rotary method.

21.4 Geophysical Borehole Logging

The work includes geophysical logging. Geophysical logging shall be done from ground surface down to 180-meter depth.

21.5 Well Casing Materials

Well casing materials shall be provided by the District.

21.6 Well Casing Installation

Well casing shall be installed at a depth of 180 meters. In the event that the well casing is not properly installed in the desired depth, the owner shall not accept the installation and shall require the Contractor to perform necessary correction.

21.7 Well Design

Well Depth and final well design will depend on the actual results of the Geophysical Borehole Logging result. Payment shall be based on the actual works performed particularly on the length of casings and screens installed.

21.8 Pumping Testing

Prior to the pumping test, the contractor shall excavate the necessary drainage canal in preparation for 72 hours continuous pumping test. Excavated materials resulting from canal construction should be placed and restored properly to the satisfaction of the engineer

21.9 Cement Grouting

No Special Provisions

21.10 Project Signboard

The District shall furnish, erect and maintain One (1) COA/Project signboard 8ft x 8ft in size.

21.11 Water Quality Testing

Water quality testing such as Physical and Chemical analysis shall be conducted by DOH accredited laboratory. All expenses shall be covered by the contractor.

21.12 Project Superintendent

A qualified Superintendent/Project engineer shall be available in the work and shall provide competent supervision of the work, until its completion and shall have full authority to act in behalf of the contractor, and all directions given by the District.

21.13 Inspection and Testing

All Materials furnished and all work performed under the Contract shall be subject to inspection by the District. The Contractor shall be held strictly to the true intent of the Specifications and Drawing with regard to the quality of materials, workmanship and diligent execution of the contract. Work done in the absence of prescribed inspection may be required to be removed and

replaced under the proper inspection; and the entire cost of removal and replacement, including the cost of all materials which may be used in the work shall be borne by the Contractor. The cost of carrying out the normal inspection and testing for materials should be at the Contractor's expense.

21.14 Plans and Specifications

All works that may be called for, in the specifications and not shown on the plans or vice versa shall be executed and complied as if described in both. Should there be any work required which is not denoted on either plans and specifications either directly or indirectly out of the intent thereof, it is understood that same shall be implied and required and shall be performed and furnished such materials and layout as if it has been so described.

The plans and specifications shall be considered complementary and any details mentioned in one but not in the other, or vice versa, shall be interpreted to be applicable in both. If no numerical label of the dimension(s) of any part of details appeared on plan, the drawings shall be carefully followed in accordance to the scale thus indicated, otherwise all numerical data of dimensions of details when so provided must be followed and not the scale of the drawing.

22.0 INSPECTION OF PROJECT SITE

The Contractor's representative shall inspect the project site in order to satisfy themselves by personal examination and/or by such other means as they may prefer, and should be aware of the conditions which might affect the execution of the contract to be done and has made provisions therefore in his bid.

The Contractor shall submit Certificate of Site Inspection issued by the District upon submission of bid proposal.

23.0 CONTRACT DURATION

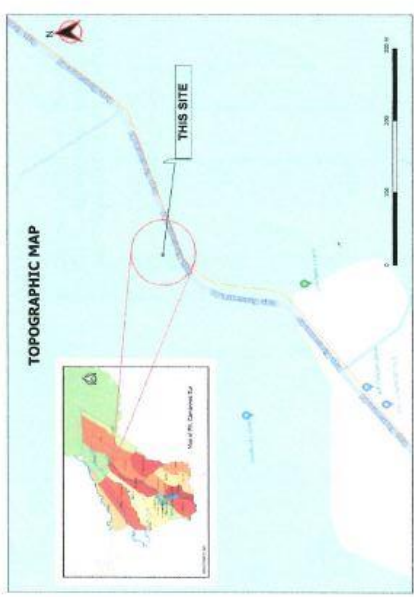
The Contractor shall perform all scope of works within the period of One Hundred Twenty (120) Calendar Days. Liquidated Damages (LD) shall be imposed for each day of delay as provided in the IRR of RA 9184.

Section VII. Drawings

[Insert here a list of Drawings. The actual Drawings, including site plans, should be attached to this section, or annexed in a separate folder.]

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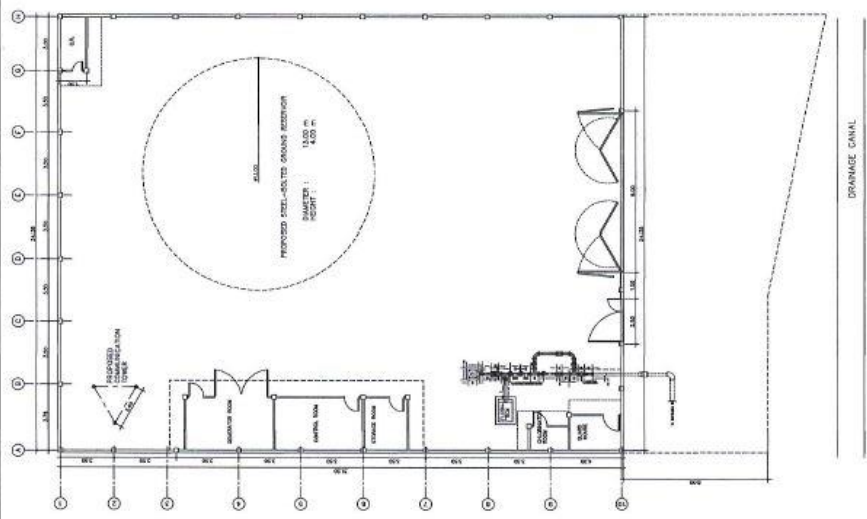
- 1 ARCHITECTURAL SITE DEVELOPMENT PLAN
- 2 GENERAL MAP TOPOGRAPHIC MAP
- 3 SCHEMATIC DIAGRAM OF WASTEWATER TREATMENT FACILITY (PUMPING TESTING AND OPERATIONAL PHASE) & (DRILLING PHASE)
- 4 SCHEMATIC DIAGRAM OF POLLUTION CONTROL FACILITY



TOPOGRAPHIC MAP

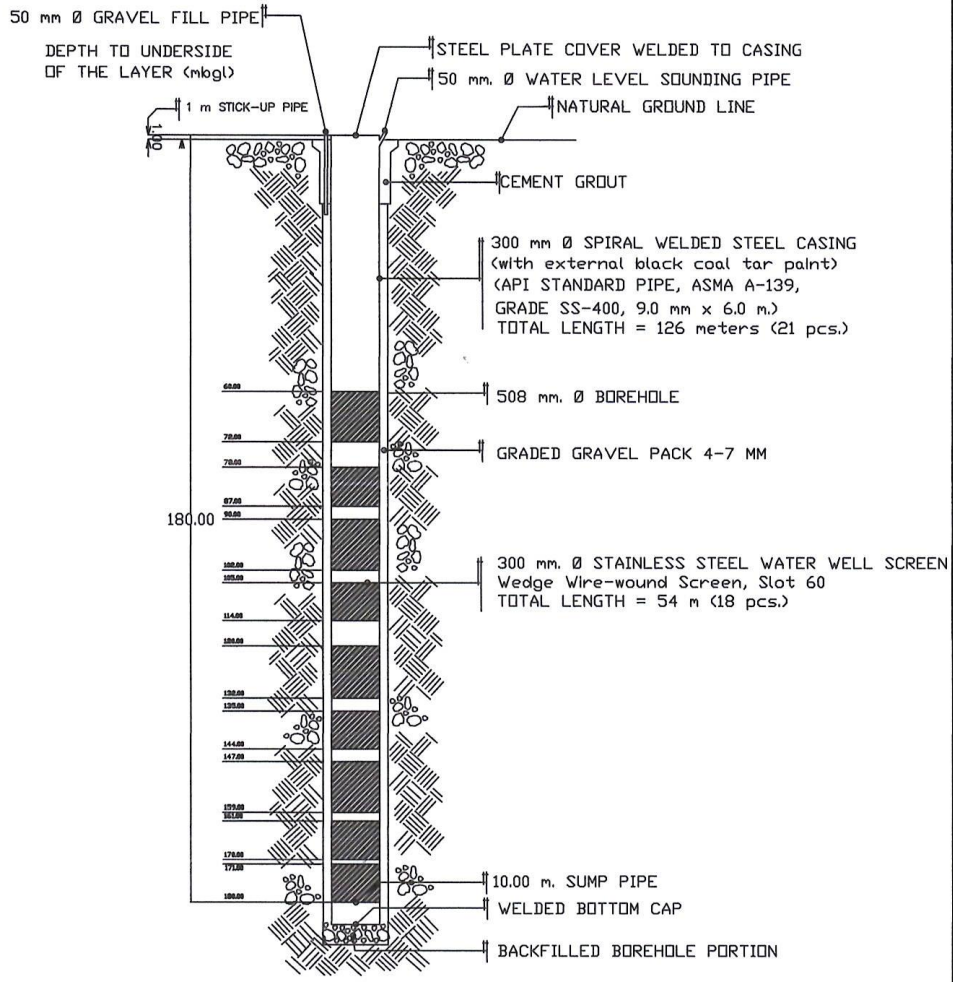


VICINITY MAP



SITE DEVELOPMENT PLAN

<p>PILI WATER DISTRICT STA. RITA INDUSTRIAL PARK SAN JOSE, PILI, CAMARINES SUR Tel. # 4777131, 4777134, 4770004</p>	<p>APPROVED BY: ANNAFÉ COLLAO-PATO GENERAL MANAGER</p>	<p>PROJECT TITLE: PROPOSED CONSTRUCTION OF PUMP STATION AT BINANUAMAN LOCATION: BINANUAMAN, PILI, CAMARINES SUR</p>	<p>RECOMMENDING-APPROVAL: ARMANDO M. CAMO ACTING DEPARTMENT MANAGER-EOD</p>	<p>CHECKED BY: JUDY B. NAVALES ACTING DIVISION MANAGER - PWD</p>	<p>PREPARED & CADT. BY: MARC PHILIP A. PLAZA ENGINEERING AIDE - A</p>	<p>SHEET NO. 1 3</p>
	<p>SCALE: 1" = 100'</p>					



TENTATIVE WELL DESIGN
SCALE: 1:600 HTS

SHEET NO. 	PREPARED BY: MARK PHILIP A. PLAZA ENGINEER ASSISTANT - A
	NOTED BY: JUDY B. NAVALES ACTING DIVISION MANAGER - POND
RECOMMENDING APPROVAL BY: ARMANDO M. CAMO ACTING DEPARTMENT MANAGER - EOD	TITLE: BINAJUANAN DEEPWELL PUMP STATION LAYOUT PLAN AND SPECIFICATIONS LOCATION: BINAJUANAN, PILI, CAMARINES SUR
APPROVED BY: ANNAFÉ COLLO-PATO GENERAL MANAGER	PILI WATER DISTRICT STA. RITA INDUSTRIAL PARK SAN JOSE PILI, CAMARINES SUR Tel. # 4777131, 4777134, 4770204

Section VIII. Bill of Quantities

Notes on the Bill of Quantities

Objectives

The objectives of the Bill of Quantities are:

- a. to provide sufficient information on the quantities of Works to be performed to enable Bids to be prepared efficiently and accurately; and
- b. when a Contract has been entered into, to provide a priced Bill of Quantities for use in the periodic valuation of Works executed.

In order to attain these objectives, Works should be itemized in the Bill of Quantities in sufficient detail to distinguish between the different classes of Works, or between Works of the same nature carried out in different locations or in other circumstances which may give rise to different considerations of cost. Consistent with these requirements, the layout and content of the Bill of Quantities should be as simple and brief as possible.

Daywork Schedule

A Daywork Schedule should be included only if the probability of unforeseen work, outside the items included in the Bill of Quantities, is high. To facilitate checking by the Entity of the realism of rates quoted by the Bidders, the Daywork Schedule should normally comprise the following:

- a. A list of the various classes of labor, materials, and Constructional Plant for which basic daywork rates or prices are to be inserted by the Bidder, together with a statement of the conditions under which the Contractor will be paid for work executed on a daywork basis.
- b. Nominal quantities for each item of Daywork, to be priced by each Bidder at Daywork rates as Bid. The rate to be entered by the Bidder against each basic Daywork item should include the Contractor's profit, overheads, supervision, and other charges.

Provisional Sums

A general provision for physical contingencies (quantity overruns) may be made by including a provisional sum in the Summary Bill of Quantities. Similarly, a contingency allowance for possible price increases should be provided as a provisional sum in the Summary Bill of Quantities. The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic supplementary approvals as the future need arises. Where such provisional sums or contingency allowances are used, the SCC should state the manner in which they will be used, and under whose authority (usually the Procuring Entity's Representative's).

The estimated cost of specialized work to be carried out, or of special goods to be supplied, by other contractors should be indicated in the relevant part of the Bill of Quantities as a particular provisional sum with an appropriate brief description. A separate procurement procedure is normally carried out by the Procuring Entity to select such specialized contractors. To provide an element of competition among the Bidders in respect of any facilities, amenities, attendance, etc., to be provided by the successful Bidder as prime Contractor for the use and convenience of the specialist contractors, each related provisional sum should be followed by an item in the Bill of Quantities inviting the Bidder to quote a sum for such amenities, facilities, attendance, etc.

Signature Box

A signature box shall be added at the bottom of each page of the Bill of Quantities where the authorized representative of the Bidder shall affix his signature. Failure of the authorized representative to sign each and every page of the Bill of Quantities shall be a cause for rejection of his bid.

These Notes for Preparing a Bill of Quantities are intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They should not be included in the final documents.

BILL OF QUANTITIES

No.	Item Description	Quantity	Unit
1	General mobilization of equipment and drilling staff	1	lot
2	Site Preparation and setting up of equipment	1	lot
3	Drilling of 200mm pilot hole including strata sampling and installation of temporary casing	180	meters
4	Soil analysis, water bearing strata identification, final well design and borehole logging	1	lot
5	Reaming of 200mm diameter pilot hole to 450mm diameter	180	meters
6	Installation of casings and screens, including stick-up pipe	181	meters
7	Flushing and installation of gravel pack materials on annulus around casings and screens	165	meters
8	Furnishing and installation of 50mmØ G.I. Gravel fill pipe with screw cap	15	meters
9	Mud dispersion/ thinning with appropriate dispersant/ thinner	1	lot
10	Well development by water jetting	24	hours
11	Well development by backwashing	24	hours
12	Well development by air lift method	12	hours
13	Step drawdown test	1	lot
14	Continuous constant discharge pumping test	72	hours
15	Cement grouting of annulus around 300mm diameter casing	15	meters
16	Furnishing and installation of well head cap and sounding tube	1	lot
17	Clean up and restoration of well site	1	lot
18	Demobilization	1	lot
19	Water quality testing	1	lot

Section IX. Checklist of Technical and Financial Documents

Notes on the Checklist of Technical and Financial Documents

The prescribed documents in the checklist are mandatory to be submitted in the Bid, but shall be subject to the following:

- a. GPPB Resolution No. 09-2020 on the efficient procurement measures during a State of Calamity or other similar issuances that shall allow the use of alternate documents in lieu of the mandated requirements; or
- b. any subsequent GPPB issuances adjusting the documentary requirements after the effectivity of the adoption of the PBDs.

The BAC shall be checking the submitted documents of each Bidder against this checklist to ascertain if they are all present, using a non-discretionary “pass/fail” criterion pursuant to Section 30 of the 2016 revised IRR of RA No. 9184.

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Documents

- (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages) in accordance with Section 8.5.2 of the IRR;

Technical Documents

- (b) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
- (c) 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**
- (d) Special PCAB License in case of Joint Ventures **and** registration for the type and cost of the contract to be bid; **and**
- (e) 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**
- (f) Project Requirements, which shall include the following:
 - a. Organizational chart for the contract to be bid;
 - b. List of contractor's key personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data;
 - c. List of contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**
- (g) 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

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

Class “B” Documents

- (i) 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

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

Other documentary requirements under RA No. 9184

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

Republic of the Philippines



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