



Republic of the Philippines
Department of Agriculture

Bureau of Fisheries and Aquatic Resources

PHILIPPINE BIDDING DOCUMENTS

(As Harmonized with Development Partners)

Government of the Republic of the Philippines

Bid Reference. No. 2023-46

“CONSTRUCTION OF BFAR REGIONAL FRESHWATER TECHNOLOGY OUTREACH STATION”

Purchase Request No.	Lot No.	End-User	Approved Budget for the Contract (ABC)
23-10-1478	1	RD NOEMI SB. LANZUELA, D.F. TECH BFAR-NCR Regional Director	Php 57,994,909.96

**Sixth Edition
July 2020**

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.

TABLE OF CONTENTS

GLOSSARY OF TERMS, ABBREVIATIONS, AND ACRONYMS.....	6
SECTION I. INVITATION TO BID	9
SECTION II. INSTRUCTIONS TO BIDDERS.....	13
1. Scope of Bid	14
2. Funding Information	14
3. Bidding Requirements.....	14
4. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices	14
5. Eligible Bidders	15
6. Origin of Associated Goods.....	15
7. Subcontracts.....	15
8. Pre-Bid Conference	16
9. Clarification and Amendment of Bidding Documents	16
10. Documents Comprising the Bid: Eligibility and Technical Components	16
11. Documents Comprising the Bid: Financial Component.....	17
12. Alternative Bids.....	17
13. Bid Prices.....	17
14. Bid and Payment Currencies.....	17
15. Bid Security.....	18
16. Sealing and Marking of Bids	18
17. Deadline for Submission of Bids.....	18
18. Opening and Preliminary Examination of Bids.....	18
19. Detailed Evaluation and Comparison of Bids	18
20. Post Qualification.....	19
21. Signing of the Contract	19
SECTION III. BID DATA SHEET	20
SECTION IV. GENERAL CONDITIONS OF CONTRACT	25
1. Scope of Contract.....	26
2. Sectional Completion of Works	26
3. Possession of Site	26
4. The Contractor's Obligations	26
5. Performance Security	27

6.	Site Investigation Reports.....	27
7.	Warranty.....	27
8.	Liability of the Contractor.....	27
9.	Termination for Other Causes	28
10.	Dayworks.....	28
11.	Program of Work.....	28
12.	Instructions, Inspections and Audits	28
13.	Advance Payment.....	28
14.	Progress Payments	29
15.	Operating and Maintenance Manuals	29
SECTION V. SPECIAL CONDITIONS OF CONTRACT		29
SECTION VI. SPECIFICATIONS.....		31
SECTION VII. DRAWINGS		38
SECTION VIII. BILL OF QUANTITIES		42
SECTION IX. CHECKLIST OF TECHNICAL AND FINANCIAL DOCUMENTS.....		46
<i>ANNEXES.....</i>		52

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



Republic of the Philippines
Department of Agriculture
BUREAU OF FISHERIES AND AQUATIC RESOURCES
BIDS AND AWARDS COMMITTEE OFFICE

2/F Fisheries Building Complex, BPI Compound, Brgy. Vasa, Visayas Ave., Quezon City
| www.bfar.da.gov.ph | bac.eps@bfar.da.gov.ph | 0999 886 5159

BID REFERENCE NO. 2023-46

“CONSTRUCTION OF BFAR REGIONAL FRESHWATER TECHNOLOGY OUTREACH STATION”

1. The Department of Agriculture - Bureau of Fisheries and Aquatic Resources (DA-BFAR), through the General Appropriations Act for 2023 intends to apply the sum of **FIFTY-SEVEN MILLION NINE HUNDRED NINETY-FOUR THOUSAND NINE HUNDRED NINE AND 96/100 PESOS ONLY (Php 57,994,909.96)** being the Approved Budget for the Contract (ABC) to payment under the contract for **Bid Reference No. 2023-46** entitled “CONSTRUCTION OF BFAR REGIONAL FRESHWATER TECHNOLOGY OUTREACH STATION”.

Bids received in excess of the ABC shall be automatically rejected at bid opening.

PR No.	Lot No.	Description	Approved Budget for the Contract (ABC) (PhP)	Bidding Documents Fee (PhP)
23-10-1478	1	CONSTRUCTION OF BFAR REGIONAL FRESHWATER TECHNOLOGY OUTREACH STATION	Php 57,994,909.96	Php 50,000.00
TOTAL			Php 57,994,909.96	Php 50,000.00

2. The DA – BFAR now invites bids for the above Procurement Project. Completion of the Works is required within **THREE HUNDRED SIXTY-FIVE (365) calendar days** upon receipt of the Notice to Proceed. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in 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 **DA – BFAR Bids and Awards Committee (BAC) Secretariat** and inspect the Bidding Documents at the address given below from **8:00 AM to 5:00 PM, Monday to Friday**.

5. A complete set of Bidding Documents may be acquired by interested bidders at **2/F, BAC Office, Fisheries Building Complex, BPI Compound, Brgy. Vasra, Visayas Ave., Quezon City** and/or through **electronic means** and upon payment of a non-refundable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount stated above. The DA-BFAR shall allow the bidder to present its proof of payment for the fees in person, or through electronic means.
6. The DA – BFAR will hold a Pre-Bid Conference¹ through videoconferencing/webcasting via **“Zoom”** application, which shall be open to interested bidders who have successfully completed registration one (1) calendar day prior to the Pre-bid Conference using Google Form **https://docs.google.com/forms/d/e/1FAIpQLSeYmhZr1BPfOBumsTmDUoRpQNFtKVZjmdcZPS-fHYC8mncfg/viewform?usp=pp_url** and in accordance with the **“Annex A, Bidder’s Kit – I”**.
7. The Schedule of Procurement Activities are:

PROCUREMENT ACTIVITIES	DATE	TIME	VENUE
AVAILABILITY OF BID DOCUMENT	November 28, 2023 (Tuesday)	8:00 AM to 5:00 PM	BFAR-BAC OFFICE 2/F, Fisheries Bldg. Complex, BPI Compound, Brgy. Vasra, Visayas Avenue, Quezon City
PRE-BID CONFERENCE	December 04, 2023 (Monday)	01:30 pm	via ZOOM
DEADLINE OF SUBMISSION AND RECEIPT OF BIDS	December 18, 2023 (Monday)	3:00 PM	BFAR-BAC OFFICE 2/F, Fisheries Bldg. Complex, BPI Compound, Brgy. Vasra, Visayas Avenue, Quezon City
DATE OF OPENING OF BIDS	December 18, 2023 (Monday)	3:30 PM	via ZOOM

8. Bids must be duly received by the BAC Secretariat through, the options given below and as indicated in **ITB** Clause 15 of this bidding documents, on or before **December 18, 2023 at 03:00 P.M.** Late bids shall not be accepted:
 - (i) **manual submission** at the office address: **2/F – BAC Office, Fisheries Building Complex, BPI Compound, Visayas Avenue, Diliman, Quezon City;**
or
 - (ii) Both **manual and online or electronic submission** at **bac.eps@bfar.da.gov.ph** Please see BFAR-BAC Online bidding procedure.
9. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 16.

¹ May be deleted in case the ABC is less than One Million Pesos (PhP1,000,000) where the Procuring Entity may not hold a pre-bid conference.

10. Bid opening shall be through video conferencing or webcasting via **“Zoom”** application. Bids will be opened in the presence of the bidders’ representatives who choose to attend the activity and in accordance with the BFAR – BAC procedure for online bidding as stated in the **“Annex A, Bidder’s kit VII”**.

11. The DA – BFAR reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.

12. For further information, please refer to:

BFAR-BAC Secretariat

Address: 2/Floor, BFAR BAC Office, Fisheries Building Complex, BPI Compound,
Brgy. Vasra, Visayas Ave., Quezon City

Email: **bac.eps@bfar.da.gov.ph**

Telephone number: 09988665159

Website address: www.bfar.da.gov.ph

13. You may visit the following websites:

For downloading of Bidding Documents: www.bfar.da.gov.ph

Issued this 24th day of November 2023

ORIGINAL SIGNED

ATTY. MICHAEL S. ANDAYOG

Chairperson, Bids and Awards Committee (BAC)

Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, DA – BFAR invites Bids for the **“CONSTRUCTION OF BFAR REGIONAL FRESHWATER TECHNOLOGY OUTREACH STATION”** with Project Identification Number **2023-46**

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 *FY 2023* in the amount of **FIFTY-SEVEN MILLION NINE HUNDRED NINETY-FOUR THOUSAND NINE HUNDRED NINE AND 96/100 PESOS ONLY (Php 57,994,909.96)**

2.2. The source of funding is General Appropriations Act.

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

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

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time through video conferencing or webcasting via **"Zoom"** application on **December 04, 2023 (Monday), 01:30 PM** 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. In case of joint ventures, a special PCAB License, and registration for the type and cost of the contract for this Project, shall be required. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
- 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.

- 10.5.** A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

11. Documents Comprising the Bid: Financial Component

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

12. Alternative Bids

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

13. Bid Prices

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

14. Bid and Payment Currencies

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

15. Bid Security

- 15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.
- 15.2. The Bid and bid security shall be valid until **April 16, 2024**. 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 (1) original and two (2) printed copies of the first and second components of its Bid. Each Bidder shall submit bids in accordance with **Section III – Bid Data Sheet, ITB Clause 16**.

17. Deadline for Submission of Bids

The Bidder shall submit bids on or before **December 18, 2023 (Monday) at 03:00 PM** at the **2/F – BAC Office, Fisheries Building Complex, BPI Compound, Visayas Avenue, Diliman, Quezon City** and electronic documents through bac.eps@bfar.da.gov.ph as indicated in paragraph 7 of the **IB**.

18. Opening and Preliminary Examination of Bids

- 18.1. The BAC shall open the Bids on **December 18, 2023 (Monday) at 03:30 PM** through video conferencing or webcasting via “**Zoom**” application. Bids will be opened in accordance with the BFAR BAC procedure for online bidding as stated in the “**Annex A – Bidder’s kit VII**” as specified in paragraph 9 of the **IB**.

The Bidders’ representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

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

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

19. Detailed Evaluation and Comparison of Bids

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

- 19.2.** If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 16 shall be submitted for each contract (lot) separately.
- 19.3.** In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

20. Post Qualification

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

21. Signing of the Contract

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

Section III. Bid Data Sheet

Bid Data Sheet

ITB Clause																													
5.2	<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>a. Single Largest Completed Contract of the contractor should be construction of a building facility.</p> <p>Preferably with experience in construction of swimming pool</p> <p>b. The bidder must have completed a single contract that is similar to the Project, equivalent to at least fifty percent (50%) of the ABC within five (5) years prior to the deadline for the submission and receipt of bids.</p>																												
7.1	<i>Subcontracting is not allowed.</i>																												
10.3	The contractor must have at least a PCAB License with Principal Classification in General Building with Minimum Size Range Medium B and Minimum License Category B																												
10.4	<p>The key personnel must meet the required minimum years of experience set below:</p> <table><tr><th>Key Personnel</th><th>General Experience</th><th>Relative Experience</th><th>Type of Experience</th></tr><tr><td>Project Manager</td><td>8 years</td><td>5 years</td><td>A license Civil Engineer with construction experience as Project Manager</td></tr><tr><td>Project Engineer</td><td>8 years</td><td>5 years</td><td>A license Civil Engineer with construction experience as Project Engineer</td></tr><tr><td>Electrical Engineer</td><td>5 years</td><td>3 years</td><td>A license Electrical Engineer with construction experience in the supervision/installation of electrical system</td></tr><tr><td>Mechanical Engineer</td><td>5 years</td><td>3 years</td><td>A license Mechanical Engineer with construction experience in the supervision/installation of electric motor pump</td></tr><tr><td>Sanitary Engineer</td><td>5 years</td><td>3 years</td><td>A license Sanitary Engineer with construction experience in the supervision/installation of water, sewage and wastewater treatment system</td></tr><tr><td>General Foreman</td><td>8 years</td><td>5 years</td><td>With experience as a Foreman of at least 8 Building Construction projects</td></tr></table>	Key Personnel	General Experience	Relative Experience	Type of Experience	Project Manager	8 years	5 years	A license Civil Engineer with construction experience as Project Manager	Project Engineer	8 years	5 years	A license Civil Engineer with construction experience as Project Engineer	Electrical Engineer	5 years	3 years	A license Electrical Engineer with construction experience in the supervision/installation of electrical system	Mechanical Engineer	5 years	3 years	A license Mechanical Engineer with construction experience in the supervision/installation of electric motor pump	Sanitary Engineer	5 years	3 years	A license Sanitary Engineer with construction experience in the supervision/installation of water, sewage and wastewater treatment system	General Foreman	8 years	5 years	With experience as a Foreman of at least 8 Building Construction projects
Key Personnel	General Experience	Relative Experience	Type of Experience																										
Project Manager	8 years	5 years	A license Civil Engineer with construction experience as Project Manager																										
Project Engineer	8 years	5 years	A license Civil Engineer with construction experience as Project Engineer																										
Electrical Engineer	5 years	3 years	A license Electrical Engineer with construction experience in the supervision/installation of electrical system																										
Mechanical Engineer	5 years	3 years	A license Mechanical Engineer with construction experience in the supervision/installation of electric motor pump																										
Sanitary Engineer	5 years	3 years	A license Sanitary Engineer with construction experience in the supervision/installation of water, sewage and wastewater treatment system																										
General Foreman	8 years	5 years	With experience as a Foreman of at least 8 Building Construction projects																										

	Agriculture Engineer	8 years	6 years	A license Agriculture Engineer with experience in hatchery operation and construction.
10.5	The minimum major equipment requirements are the following:			
	Number of Units	Equipment	Capacity	
	1	Hydraulic Backhoe, Crawler	118HP with 0.80 cu.m	Owned, leased, and/or under purchased agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/ vendor for the duration of the project.
	1	Payloader	1.30 cu.m	
	1	Vibratory Drum Roller	500 gals	
	1	Motorized Grader	125HP	
	1	Dump Truck	10,000 kgs	
	1	Plate Compactor		
	1	Elf Truck		
12	No further instructions.			
15.1	The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts: a. The amount of not less than Php 1,159,898.00 (two percent (2%) of ABC), if bid security is in cash, cashier’s/manager’s check, bank draft/guarantee or irrevocable letter of credit; b. The amount of not less than Php 441,250.06 (five percent (5%) of ABC if bid security is in Surety Bond.			
	Participating bidders/suppliers may submit their bidding documents through either of the following forms: 1. Hard Copy/Physical Document a) Submitted directly through the BAC Office Address: <u>Bids and Awards Committee (BAC) Office</u> <u>Bureau of Fisheries and Aquatic Resources</u> <u>Fisheries Building Complex, BPI Compound, Visayas Ave, Diliman, Quezon City</u> Note: If the participating bidders/suppliers only submits a hardcopy of the document, and the same is discovered to be damaged or the entries thereof are not readable during the opening thereof, said participating bidders/suppliers loses his privilege to participate in the bidding. 2. Electronic and Hard Copy Document			

- a) The hard copy/physical document shall be scanned and encrypted with password (*refer to Annexes – BFAR-BAC Online bidding Procedure*).
- b) The scanned document will be sent via email at **bac.eps@bfar.da.gov.ph**

Bidders/suppliers may opt to submit both electronic and hardcopy in compliance with the abovementioned details.

Note: In case the electronic copy is discovered corrupted during opening, the back-up hardcopy will be opened as alternative option. However, in the event that both electronic copy and hardcopy are corrupted and/or not readable participating bidders/suppliers loses his privilege to participate in the bidding.

A. GUIDELINES ON LABELING AND MARKING OF BID ENVELOPE FOR THE SUBMISSION OF HARD COPIES:

1. Main envelope shall:
 - a. bear addressed to the Procuring Entity's BAC;
 - b. bear the specific identification/Bid Reference No. of this bidding;
 - c. contain the name of the contract/Project Title to be bid;
 - d. bear the Company name, address and contact details of the Bidder; and
 - e. bear a warning "DO NOT OPEN BEFORE" (the date and time of opening of Bids);
2. Bidders shall enclose the First component (Eligibility and Technical documents) and Second components (Financial documents) of their bid;
3. Each Bidder shall submit one (1) original and two (2) copies of the first and second components of its bid;
4. The inner envelopes of the first and second component shall be similarly sealed and duly marked as Original, Copy 1 and Copy 2; and
5. Each components must contain Table of Contents and all documents attached should be properly tabbed and bound; and
6. All pages should be signed by the bidder's authorized representative.

Please see attached Illustration for your reference:

FORMAT FOR LABELLING OF BID ENVELOPE

Atty. Michael S. Andayog
Chairperson
Bids and Awards Committee
2/F, Fisheries Bldg. Complex, BPI
Compound, Brgy. Vasra, Visayas
Ave., Quezon City

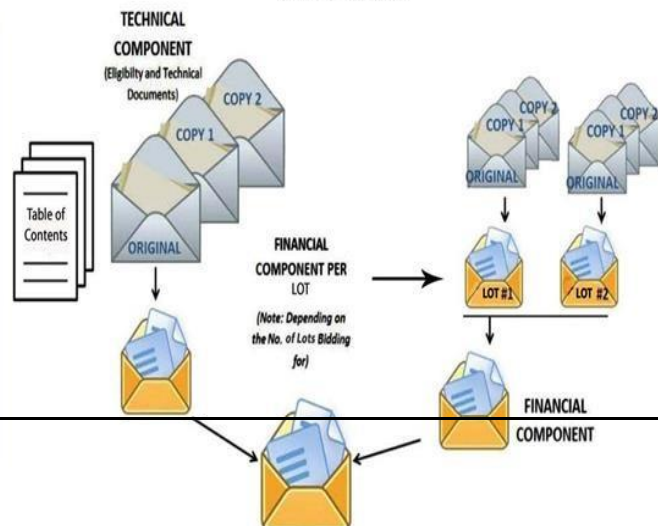
Bid for
Bid Ref. No.: _____
Project Title: _____

Submitted by:

- c) BIDDER'S COMPANY NAME
- d) BIDDER'S COMPANY ADDRESS
- e) BIDDER'S CONTACT DETAILS

SEALING AND MARKING OF BIDS

(for each component)



	<p>DO NOT OPEN BEFORE: _____</p> <p>Important: DA-BFAR will assume that the submitted electronic copies must be the same as the printed copies.</p> <p>B. GUIDELINES ON ELECTRONIC/ONLINE SUBMISSION AND RECEIPT OF BIDS:</p> <p><u>Please see BFAR BAC Online Procedure, Annex A to C (pages 51 to 64)</u></p> <p>Deadline of submission and receipt of bids (Manual and Electronic):</p> <p><u>December 18, 2023 (Monday), 03:00 PM</u></p>
19.2	No further instruction.
20	No further instruction.
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

1. Scope of Contract

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

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

2. Sectional Completion of Works

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

3. Possession of Site

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

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

4. The Contractor's Obligations

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

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

5. Performance Security

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

6. Site Investigation Reports

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

7. Warranty

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

8. Liability of the Contractor

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

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

9. Termination for Other Causes

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

10. Dayworks

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

11. Program of Work

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

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

12. Instructions, Inspections and Audits

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

13. Advance Payment

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

14. Progress Payments

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

15. Operating and Maintenance Manuals

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

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

Section V. Special Conditions of Contract

Special Conditions of Contract

GCC Clause	
2	<p>The Intended Completion Dates are the following: Within THREE HUNDRED SIXTY-FIVE (365) calendar days upon receipt of the Notice to Proceed;</p> <p>The breakdown of the computation for the total contract time is as follows:</p> <ol style="list-style-type: none"> 1. Total Actual Number of Working Days = 251 (Counted 6 days a week) 2. Allowance for Holidays & Weekends = 69 3. Allowance for Inclement Weather = 45 <p style="text-align: right;">Total Contract Time = 365 (Calendar Days)</p>
4.1	The DA – BFAR shall give temporary possession of all necessary parts of the Site to the Contractor from the date of the effectivity of contract until the date of its termination and/or project completion.
6	Site Inspection should be conducted prior to the conduct of Bid Opening Conference to enable the bidder/contractor to submit their queries/issues on the project, and the bidder/contractor must have a Certificate of Site Inspection issued by the BFAR NCR Regional Director.
7.2	Five (5) years warranty
10	No dayworks are applicable to the contract.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within fifteen (15) days of delivery of the Notice of Award.
11.2	No further instruction.
13	The amount of the advance payment <i>shall not exceed 15% of the total contract price and schedule of payment.</i>
14	No further instruction.
15.1	No further instruction.
15.2	No final payment shall be made by the DA-BFAR unless the Contractor prepares and submits the required as-built plans signed by Professionals.

Section VI. Specifications

Lot Title: CONSTRUCTION OF BFAR REGIONAL FRESHWATER TECHNOLOGY OUTREACH STATION

Approved Budget for the Contract (ABC) : Php 57,994,909.96

DESCRIPTION	Statement of Compliance
CONSTRUCTION OF BFAR REGIONAL FRESHWATER TECHNOLOGY OUTREACH STATION	<p>[Bidders must state here either “Comply” or “Not Comply” against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered.</p> <p>Statements of “Comply” or “Not Comply” must be supported by evidence in a Bidders Bid and cross- referenced to that evidence. Evidence shall be in the form of manufacturer’ s un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidder's statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post- qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.]</p>

I hereby certify that the statement of compliance to the foregoing bill of quantities are true and correct, otherwise, if found to be false either during bid evaluation or post qualification, the same shall give rise to automatic disqualification of our bid.

Name of Company

**Signature over Printed Name of
Authorized Representative**

Date

TERMS OF REFERENCE

CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION

I. BACKGROUND

In support to the implementation of the **Taguig Agro-industrial Hub for Freshwater Aquaculture and Urban Farming**” which aims to implement a sustainable use and management of the Lake’s resources. The BFAR-National Capital Region will construct two major components: the Establishment of the Regional Freshwater Fisheries Technology Outreach Station (RFFTOS) and the Establishment of Regional Fisheries Training Center (RFTC).

The project will be utilizing the usufructuary land institutionalized through a Memorandum of Agreement between the Laguna Lake Development Authority (LLDA), Local Government Unit of Taguig, the Department of Agriculture (DA), and the Bureau of Fisheries and Aquatic Resources, National Capital Region (BFAR-NCR) for the Taguig Agro-Industrial Hub for Freshwater Aquaculture and Urban Farming Project. A one-hectare land area at Level Up, Rojas Street, Brgy. Calzada, Taguig City was agreed for the use of BFAR-NCR.

The RFFTOS and RFTC will be in-house in a two-story building with 800 square meter area per floor. The dormitory will be constructed alongside of RFTC building, while the intensive tilapia hatchery facilities will be on the opposite side of the RFFTOS building, together with the fish tanks. The tilapia hatchery will be using the intensive breeding of tilapia, one of the promising hatchery technologies for tilapia fingerlings production. The intensive tilapia hatchery used an incubator to hatch the fertilized egg using a conical container. This technology requires only a small area to operate. The tilapia egg is collected in the mouth of tilapia breeders and placed into a conical container for incubation. The conical container with a volume of 8 liters can handle 20,000 eggs per cycle. After three to five days of incubation, the eggs will hatch into yolk sac fry and flow into the white reception tank. Once the yolk sac absorption is completed, the hatchery technician should transfer the fry to the nursery.

The intensive tilapia hatchery will be composed of ten (10) unit conical jars with eight (8) liter capacity that can hatch 120,000 to 140,000 eggs per cycle of 1.2 million to 1.4 million per year at 60% to 70% hatching rate. Twelve concrete tanks with 3 meters width, 6 meters length, and 1-meter depth will be the nursery ground for the fry produced. Each nursery tank can accommodate 10,000 to 11,000 fry making an overall capacity of 120,000 to 132,000 per cycle. On the other hand, the twelve units 5-meters diameter circular tanks will serve as the area for raising, developing, and breeding tilapia broodstock. Likewise, the grow-out of fingerlings to juvenile to support the freshwater aquaculture park.

II. OBJECTIVES

- To establish a Regional Freshwater Fisheries Technology Outreach Station and Regional Fisheries Training Center in the National Capital Region to cater to the needs of the fisherfolk to increase productivity and income considering sustainability and resilience.
- To intensify technology verification activities by conducting field testing to specific culture systems and determining economic and commercial viability.
- To package freshwater aquaculture technologies that enhance fish productivity and profitability.
- To capacitate and empower the fisherfolk through enhancement of skills and knowledge in freshwater aquaculture technology, and;
- To provide good quality tilapia fingerlings to the fisherfolk, backyard tilapia raising in the city, and to support the sustainable operation of the Taguig Agro-Industrial Hub for Freshwater Aquaculture and Urban Farming.



PERSPECTIVE

III. APPROVE BUDGET FOR THE CONTRACT (ABC)

The Approved Budget of the Contract (ABC) is Php57,994,909.96. This is the ceiling for acceptable bids. Bids higher than the ABC shall be automatically rejected.

IV. PROPOSED CONTRACT DURATION

The proposed contract duration of the project is 365 calendar days.

V. QUALIFICATION REQUIREMENTS

- The bidders must have completed a similar contract/project equivalent to **FIFTY percent (50%)** of the ABC within **FIVE (5) years** from the date of submission and receipt of bids.
- The bidders should have good track record.

VI. MINIMUM MANPOWER REQUIREMENT

Key Personnel	General Experience	Relative Experience	Type of Experience
Project Manager	8 years	5 years	A license Civil Engineer with construction experience as Project Manager
Project Engineer	8 years	5 years	A license Civil Engineer with construction experience as Project Engineer
Electrical Engineer	5 years	3 years	A license Electrical Engineer with construction experience in the supervision/installation of electrical system
Mechanical Engineer	5 years	3 years	A license Mechanical Engineer with construction experience in the supervision/installation of electric motor pump
Sanitary Engineer	5 years	3 years	A license Sanitary Engineer with construction experience in the supervision/installation of water, sewage and wastewater treatment system
General Foreman	8 years	5 years	With experience as a Foreman of at least 8 Building Construction projects
Agriculture Engineer	8 years	6 years	A license Agriculture

			Engineer with experience in hatchery operation and construction.
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VII. MINIMUM MAJOR EQUIPMENT REQUIREMENT

Number of Units	Equipment	Capacity	
1	Hydraulic Backhoe, Crawler	118HP with 0.80 cu.m	Owned, leased, and/or under purchased agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project.
1	Payloader	1.30 cu.m	
1	Vibratory Drum Roller	500 gals	
1	Motorized Grader	125HP	
1	Dump Truck	10,000 kgs	
1	Plate Compactor		
1	Elf Truck		

VIII. TECHNICAL SPECIFICATION

PART VII-1 – GENERAL EXPENSES AND PREPARATION OF WORKS

A. MOBILIZATION AND DEMOBILIZATION

A.01 SCOPE OF WORK

The contractor shall mobilize and demobilize all equipment necessary to complete all work items of the project.

Mobilization and demobilization shall be treated as separate items. It shall be computed based on the cost of transportation of all equipment of the contractor to complete the project.

Covers the topographic survey including the layout and installation of markers.

A.02 TOPOGRAPHIC SURVEY

Reference: All survey works shall be carried out in reference to bench marks or monuments designated by the Engineer.

Surveyor: Licensed Surveyor shall carry out all survey works specified in this section. The Contractor shall submit in advance for the Owner's approval, the true copy of license and qualifications of the surveyor to be employed for the works.

Prior to commencement of the work, the Contractor shall carry out the pre-construction topographic of the project by means of traversing, sounding and leveling, and shall prepare

topographic/hydrographic plan on tracing paper in a convenient scale approved by the Engineer. The salient features of the area with respect to their position and shall have contour lines of 250mm vertical intervals. The survey shall form the basis for future quantity measurements.

All stations shall be established by closed traversing with an error of closure of not more than 1:3000

The Contractor shall submit to the Owner the original and two (2) copies of the plan signed by the Surveyor and the Owner's Representative.

A.03 LAYOUT AND INSTALLATION OF MARKERS

The Contractors shall layout the works and shall be solely responsible for the accuracy of such laying-out. The Contractor shall provide, fix and maintain all stakes marks or the like which are necessary for the accurate laying out of the works and shall take all necessary precautions to prevent their removal or disturbances, all as approved by the Owner. The Contractor shall provide suitable range in the water to indicate the boundary lines.

Laying out of works shall include verification of position of all markers, supply and installation of any and all other markers which the contractors may require for the proper executions and completion of the work, and shall also include the repositioning of the Owner's marker if such repositioning is deemed necessary by the Contractor and approved by the Owner.

A.04 LAYOUT AND INSTALLATION OF MARKERS

1. Lines and reference points for the existing and widening of causeway road and other major site improvements included under this contract.
2. Reference point, lines and levels necessary for layout of building, roadway and other construction related to the control of surface and storm water.

A.05 FIELD NOTES

Field Notes, calculations sheets and other documents shall be prepared in a manner acceptable to the Owner. The Contractor shall submit such notes and other documents on completion of the respective works or, if so required, during the progress of works for the Engineer's inspection thereof.

B. PROVISION OF RESIDENT ENGINEER'S OFFICE

B.01 OFFICE SUPPLIES / OFFICE EQUIPMENT

1. The Contractor shall provide a field office for government field engineers or inspectors. The said office shall be a 20-footer converted container van office, class B, properly ventilated, lighted, and with a toilet/comfort room. The office shall be provided with three (3) clerical tables, with matching swivel chairs, six (6) stacking chairs without armrest (monoblock), one (1) unit 18" electric stand fan, two (2) units ROG Laptop with completes accessories,

one (1) Free Standing Water Dispenser, and one (1) unit 1.5HP Inverter Aircon. All above-mentioned shall be turned over to the BFAR upon completion of the project.

2. The field office shall be maintained by the Contractor throughout the construction period (including electric & water expenses).
3. The Contractor shall provide office supplies to be used in preparation of correspondence and progress reports. Likewise, the same shall be responsible for the reproduction of pictures during the project implementation and communication expenses (pre-paid cellular card at least P5,000.00/month) borne by the BFAR personnel during the project implementation.

B.01.1 OFFICE SUPPLIES/ OFFICE EQUIPEMENT

1. CONTAINER VAN OFFICE (1 UNIT)

- Class B, 20 footer, Convan Office with comfort room
- Double walling with Installation
- Interior and Exterior painting
- Installation of 1 door, 2 windows (0.20m x 1.20m) and toilet window (0.50m x 0.50m)
- Provision of air conditioning unit
- Sufficient electric lighting facilities and electrical outlets for all Equipment / appliances to be provided by the contractor
- Vinyl tile flooring
- Class B container to be used as structure , with comfort room including provision , of septic tank, water and sewer piping and electrical wiring concrete pedestal for container van including fabrication

2. CLEARICAL TABLE (3 PCS)

- Made of laminated table
- Park mahogany
- Single pedestal
- With center & side drawers / cabinet
- Size: 1200mm x 600mm x 750mm
- Preferably Model 60T-80S

3. CLERICAL CHAIR (3 PCS)

- Fully padded with backrest
- Leatherette upholstery
- Revolving five legged, heavy duty

- Low back with armrest

4. ELECTRICAL STAND FAN (1 UNIT)

- 18" electric stand fan, body made of metal materials with complete accessories

5. LAPTOP SPECIFICATION (TWO SETS)

- Processor : AMD Ryzen 7, 5800HS with Radeon Graphics 3.20 GHz
- Installed RAM: 16.0 GB (15.4 GB usable)
- System type: 64-bit operating system, x64- based processor
- Graphics: AMD Radeon Rx 6800S
- Memory: Up to 32GB DDR5
- Storage: M.2 PCIe 4.0 SSD 512GB 1TB
- Screen: 24" QHD + 120Hz / 14" FHD + 144Hz AMD FreeSync premium

6. DESKTOP SPECIFICATION (1 SET)

- Processor: INTEL i5 12th gen or equivalent
- Motherboard: Compatible with INTEL i5 12th gen or equivalent
- Installed RAM: 16.0 GB (15.4 GB usable)
- System type: 64-bit operating system, x64- based processor
- Graphics: 4GB
- Memory: Up to 32GB DDR5
- Storage: M.2 PCIe 4.0 SSD 512GB and 1TB HDD
- Screen: 24" IPS Full HD
- Keyboard and Mouse: Wireless Connectivity
- Uninterrupted Power Supply: 1500W

B.02 PROJECT SIGNBOARD

The Contractor shall provide project signboard (1.20m x 2.40m) at the construction site bearing the name of the project, location, project cost, starting date and completion date, name of implementing agency, the name of the contractor and the other information that shall be required by the BFAR.

The signboard shall be made of tarpaulin in wood framing. It shall be erected with necessary wooden support and bracing. The signboard shall be erected by the contractor within two (2) weeks after the project commence.

C. BUDGETARY AMOUNT FOR PERMITS AND CLEARANCES

D.01 GENERAL CONDITIONS

In relation to the provisions of existing laws, codes and regulations, there is a need to comply with necessary Permits and Clearances upon the commencement and closing of the project. Permits and Clearances are in the form of budgetary amount intended to cover work which is not defined at the time that the contract is executed. It shall be utilized only at the direction of BFAR.

The contractor shall, upon authorization by BFAR, make representation with the concerned government agencies to expedite the release of the required Permits and Clearances.

The Contractor shall not be entitled to any portion of the budgetary amount which Permits and Clearances remain unspent nor for any compensation because of a decrease in the total value of the contract due on portions of this budgetary amount, remaining unspent.

All expenditures under this shall be in accordance with the procedures and guidelines set out for valuation of Variation Orders as per Revised IRR of RA 9184 (Government Procurement Reform Act) and DPWH Department Order No. 197, s. 2016 (Revised Guidelines in the Preparation of Approved Budget For The Contract).

D.02 SCOPE OF WORK

The Contractor shall pay for any and all expenses necessary and incidental to be able to secure the required Permits and Clearances, in coordination with the BFAR and the Local Government Unit of Taguig City, upon the commencement and closing of the project. It shall not be limited to following, to wit:

1. Sign-and-Seal services of required Permits, Plans (For Construction Drawings and As-Built Plans) and Clearances from the competent Professionals, as stated in the National Building Code;
2. Building Permit and other related permits from the local Office of the Building Official and other concerned government agencies;
3. Environmental Compliance Certificate/Certificate of Non-Coverage from the Department of Environment and Natural Resources – Environment Management Bureau;
4. Other Permits, Clearances, and other related documents, which found deemed necessary, for the completion of the project.

Part VII-2 - CONSTRUCTION SAFETY AND HEALTH PROGRAM

A. SCOPE OF WORK

A.01 The contractor shall comply with the latest issuance of Implementing Rules and Regulations (IRR) for the implementation of Republic Act No. 11058 also known as the Occupational Safety and Health Standards (OSHS) law.

A.02 The contractor shall provide construction safety materials to be used by construction personnel for the entire duration of the project. These include safety shoes, helmets (hard hats), rubber boots, raincoats, safety dust masks, and, first aid kit.

The contractor shall also hire one (1) safety officer for the whole duration and one (1) first aider for the entire duration. Category and quantity of safety personnel shall be based on the requirement of OSH Law.

A.03 Construction safety shall be treated as a separate item. It shall be computed based on the cost of construction safety materials and the rate of safety officer and first aider for the contractor to complete the project.

PART VII-3 – SITE DEVELOPMENT AND UTILITIES WORK

A. SURVEY AND LAYOUT WORKS

Scope of Work

This section covers topographic and hydrographic survey including layout and installation of markers.

A.01 Topographic and Hydrographic Survey

Reference: All survey works shall be carried out in reference to bench marks or monuments designated by the Engineer.

Surveyor: *Licensed Surveyor shall carry out all survey works specified in this section.* The Contractor shall submit in advance for the Owner's approval, the true copy of license and qualifications of the surveyor to be employed for the works.

Prior to commencement of the work, the Contractor shall carry out the pre-construction topographic and hydrographic survey of the project by means of traversing, sounding and leveling, and shall prepare topographic/hydrographic plan on tracing paper in a convenient scale approved by the Engineer. The salient features of the area with respect to their position

and shall have contour lines of 250 mm vertical intervals. This survey shall form the basis for future quantity measurements.

All stations shall be established by closed traversing with an error of closure of not more than 1:3000.

The Contractor shall submit to the Owner the original and two (2) copies of the plan signed by the Surveyor and the Owner's Representative.

A.02 Layout and Installation of Markers

The Contractors shall layout the works and shall be solely responsible for the accuracy of such laying out. The Contractor shall provide, fix and maintain all stakes marks or the like which are necessary for the accurate laying out of the works and shall take all necessary precautions to prevent their removal or disturbances, all as approved by the Owner. The Contractor shall provide suitable range in the water to indicate the face lines of revetment.

Laying out of works shall include the verification of position of all markers, supply and installation of any and all other markers which the Contractor may require for the proper execution and completion of the work, and shall also include the repositioning of the Owner's marker if such repositioning is deemed necessary by the Contractor and approved by the Owner.

A. 03 Construction Survey Work Shall Provide:

1. Lines and reference points for the existing causeway road and other major site improvements included under this contract.
2. Reference points, lines and levels necessary for layout of roadway and other construction related to the control of surface and storm water.

A.04 Filed Notes

Filed Notes, calculations sheets and other documents shall be prepared in a manner acceptable to the Owner. The Contractor shall submit such notes and other documents on completion of the respective works or, if required, during the progress of works for the Engineer's inspection thereof.

B. CLEARING AND GRUBBING

B.1 Clearing and grubbing

This work shall consist of clearing, grubbing, removing and disposing all vegetable and debris as designated in the contract, except those objects that are designated to remain in place or are to be removed in consonance other provisions of this specifications.

The work shall conform to DPWH Standard Specifications 2013, Item 100- Clearing and Grubbing.

C. EMBANKMENT/LAND DEVELOPMENT

C.01 Description

This item shall consist of introducing suitable materials obtained authorized borrow areas situated beyond the right-of-way limits of the project at locations designated by the Owner's Representative and place as required within the area to be reclaimed and to the required elevation. The materials shall be of a quality satisfactory for the purpose intended. Embankment shall include the clearing and grubbing of sites and the removal of all materials.

C.02 Materials Requirements

Filling materials shall consist of all types earthen materials such as soil, gravel, sand, shells, corals, cinders and rock of any geologic origin and any additional filler for blending which have distinctive properties ready identified in the field and have distinct engineering characteristics of which practical use can be made. Materials such as weeds, silt, muck and other superfluous or organic materials are not considered suitable materials for the embankment and levelling.

C.03 Construction Requirements

C.03.1 By Borrow

Borrow material shall be secured from land sources recommended as borrow outside the limits of the project or at locations/sites approved by the Owner's Representative. The Contractor shall construct and maintain haul roads. Likewise, the Contractor shall secure borrow from sources other than those designated, provided that the materials and location are approved by the Owner's representative, in which case, the Contractor shall, at his own expense, secure the pit and construct and maintain the haul roads together with the necessary right-of-way for such roads and the right-of-access thereto.

The materials shall be hauled and placed in positions on the embankment or land development indicated on the plans.

Borrow pits when practicable shall be so excavated that they will drain to the nearest natural outlet or to such outlet as indicated on the plans or designated by the Owner's Representative. Side slopes of borrow pits in all cases shall be dressed to such slope as the Engineer may direct.

C.04 Compaction Requirement

The materials above MLLW whether obtained by dredging or from borrow pits shall be spread out and compacted in layers not exceeding 300mm preferably by at least six passes of a vibratory roller of at least 8 ton drawn by a tractor. The fill shall be compacted to not less than 90% of standard proctor test requirement.

In case there is a layer of very compressible clay of variable thickness underneath the areas to be developed, the filling immediately on top of the original sea or river beds shall be executed in thin layers not exceeding one meter spread over a wide

area to avoid bulging of the soft compressible clay, until the MLLW elevation is reached. If in spite of this precaution, some clay eruption is observed on the fill material, this clay will be removed down to the elevation of the original sea or river bed and replace with good material. In the event that the top sea or river bed material is composed of soft silt, muck or organic material, the Contractor shall remove such soft material prior to filling or filling operation should be programmed so that the soft material can be push out of the reclamation area as directed by the Owner's Representative. The reclamation area shall be filled to the finished elevation shown on the plan plus allowances for expected settlement. Filling of the embankment area and the construction of bulkheads shall be given top priority over other construction activities.

Final Test Acceptance: Upon assumed completion of filling up works, moisture content of the fill shall be determined in accordance with ASTM D 2216. Test samples shall be taken at places designated by the Owner. For each place designated, two test samples shall be taken at depths of 300 mm and 700 mm respectively. The average moisture content of any two specimens taken in one place shall not exceed 90 percent. All tests shall be performed in the presence of the Owner's Representative.

Graders or any equipment acceptable shall do grading of roadbed prior to the start of pavement works to the Owner. Grading and compaction shall be brought up to the specified lines and elevation as shown on the drawings. The roadbed shall be subject to the Owner's approval prior to the start of pavement works.

D. EXCAVATION

D.01 Description

This item shall consist of removal and disposal of unsuitable material that may be required for embankment and levelling. It shall include all necessary clearing and maintenance of the excavation prior to backfilling. It shall also include removal of obstruction or parts thereof, as required. Materials such as weed, fine silt, mud and other superfluous material are considered unsuitable materials.

D.02 Construction Requirements

Excavation will include removal of unsuitable materials. All unsuitable material shall be disposed of as directed by the BFAR Engineer. Materials encountered in the excavation and determined by the Engineer as suitable for slope protection or other purposes shall be conserved & utilized as directed by the Engineer.

The seabed shall be excavated according to the cross sections shown on the Plans or as established by the Owner's Representative with appropriate dredges and attendant plants with which the dredge and dispose the unsuitable material at a place shown on the Plan or as directed by the Owner's Representative an over dredging of as much as 0.30 m. beyond the limit required shall be paid for. In case of over dredging wherein the limits and slope shown on the Plan or as established by the Owner's Representative are exceeded by more than 0.30 m., the area shall not be backfilled with the type of material excavated but with good sand specified for sand mattress but shall not be included in the payment.

The Contractor shall submit before proceeding with the work under this item his proposed method of excavation including drawings and other details left open to his choice when not fully shown on the Plans. The Owner shall approve such method, drawings and details before actual work is started under this item.

E. DRAINAGE AND SEWERAGE SYSTEM

Scope of Work

The Contractor shall furnish all works, equipment materials, labor and supervision required to complete this item in full compliance with the terms and conditions of contract.

Work Included

- a. Excavation and Backfilling

All excavation shall conform to the requirements of ***Part VII-4-B – EXCAVATION AND BACKFILLING FOR BUILDINGS.***

- b. Construction of Drainage Canals (Gutter Type)

Drainage canals shall be constructed in accordance with the plans and shall conform to the requirements of ***Part VII-4-E – CEMENT AND MASONRY.***

- c. Provide sewage holding tank and screening tank as shown in the plan. Concrete shall be 20.70 Mpa.at 28 days and conforming to the requirements of ***Part VII-4.C- CONCRETE WORKS.***

- d. All pipes shall conform to the requirements of ***Part VII-4.K – PLUMBING WORKS.***

F. WATER DISTRIBUTION SYSTEM

F.01 Scope of Work

The Contractor shall furnish all works, equipment, materials, labor, testing and supervision required to complete the entire water supply system, in strict compliance with the Drawing and these Specifications.

F.02 Work Included

- a. Drilling of deep well.

- b. Water Distribution line shall be tapped from the elevated water tank and reservoir.
- c. Furnishing and installation of ball valves, gate valves, check valve and valve manholes.
- d. Supply and installation of all pipes and fittings as indicated in the Plan and Specification.
- e. Hydrostatic pressure testing of pipelines.
- f. All works guarantee.

F.03 Trench Excavation/Backfilling

All excavations shall be protected from damage due to water and the Contractor, at his own expense, shall provide pumps, enclosure and temporary drainage whenever necessary to keep the excavation free of water.

Whenever it is necessary to excavate deeper to bring the pipe below the hydraulic gradient or for the purpose of protecting the pipe line, the Contractor shall do all the excavation work and backfill at his own expense.

After pipes have been laid, tested and approved, backfilling shall be done with approved materials free from large clods, stones and organic matters.

Excavated materials may be used for backfilling as approved by the Engineer.

In all cases, backfill materials shall be moistened, if dry, and tampered to 95% compaction.

F.04 Pipe Laying and Anchorage

Pipes shall not be laid in water, or when trench or weather conditions are unsuitable for the work. Water shall be kept out of the trench until the joining is complete.

All dirt shall be removed from the inside of the pipe before laying. Changes in direction of pipes and other fittings that maybe unsettled by pressure shall be properly anchored by concrete thrust blocks. Likewise, all exposed pipe shall also be supported and anchored whenever necessary.

The design of these supports shall be approved by the Engineer and all extra costs shall be at the expense of the Contractor.

F.05 Sand Bedding and Backfilling

Each layer of sand bed and backfill shall be moistened, if dry and tampered to 95% compaction. Water settling shall not be permitted in clayey soils.

No backfilling shall commence without proper installation of trust blocks and pressure testing.

F.07 Galvanized/Black Iron Pipes and Fittings

Galvanized/Black steel pipe shall conform to the requirements of “ASTM A – 120” and shall be Schedule 40. Fittings for galvanized pipe shall be of galvanized malleable iron.

F.08 uPVC Pipes and Fittings

Pipes shall conform to the requirement of uPVC Portable Water Pipes stated in ***Part VII-4.K-PLUMBING WORKS*** of this specification.

F.09 Valves

Gate valves and ball valves to be used shall be screw type. KITZ brand or equivalent.

F.10 Testing Requirements

Pressure testing of the piping system shall be performed as work progresses to detect leaks especially at the pipe joints. Testing shall be done prior to backfilling. Testing shall be made only after all the pipes are properly anchored. Test pressures and procedures as approved by the Engineer.

Pump test shall also be performed to check its performance under actual operating condition. This is done after the installation works so that the whole system including its controls shall be subjected to demonstration test to prove that they operate and function satisfactorily.

All pipes, fittings, valves, joints and coupling found to be defective or cracked during the test shall be removed and replaced by the Contractor at his own expense.

G. ELECTRICAL WORKS

All works shall conform to the applicable provision of ***Part VII-5- ELECTRICAL WORKS***.

H. PERIMETER FENCE AND GATES

H.01 Description

This item shall consist of furnishing and constructing posts, concrete hollow blocks fences and fabrication and installation of steel gates in accordance with the details and at the locations shown on the Plans, or as required by the Owner.

H.02 Material Requirements

H.02.1 The fence shall be plastered finish both faces with a minimum thickness of 16mm. It shall be painted both faces and conform to the provision of ***Part VII-3. J-PAINTING.***

H.02.2 Concrete work shall conform to the applicable provisions of ***Part VII-4.C-CONCRETE WORKS.***

H.02.3 Masonry works shall conform to the applicable provisions of ***Part VII-4.E- CEMENT AND MASONRY.***

H.02.4 Welding works shall conform to the Standard Specifications for Welding and the requirements of ***AWS.D1.1 Section 8 “Quality of Welds”*** and shall conform to the provision of ***Part VII-3. I-WELDING/METAL WORKS.***

I. WELDING AND METAL WORKS

I.01 Scope of Work

This section covers the furnishing of all work, equipment, materials labor and supervision required to complete the items in full compliance with the Drawing and this Specifications.

I.02 Material Provisions

All welding shall conform to the “AWS CODE FOR ARC AND GAS WELDING IN BUILDING” and as herein specified or any other welding standards approved by the Owner’s Engineer’s.

All metal works shall be done in accordance with all related publications of American Institute of Steel Construction (AISC), American Society of Testing Materials (ASTM) and American Welding Society (AWS).

Use only welding equipment, electrodes welding wire and fluxes capable of producing satisfactory when used in a qualified welding procedure.

The contractor shall be responsible for all errors of detailing for correct fitting of the structural members.

I.03 Storage of Materials

The materials shall be stored out of contact with the ground and in a manner and location that will minimize contamination and deterioration.

I.04 Materials

All materials shall be new stock, free from surface imperfections and shall conform to the applicable ASTM Specifications and equivalent standards.

I.05 Shop Connections

As detailed in the drawing or as approved by the Owner's Engineer.

I.06 Field Connections

Provide welded connections as shown in the drawing or as approved by the Owner's Engineer's.

J. METAL PAINTING

J.01 Scope of Work

The work under this section shall include labor, materials, equipment, plant and other facilities for the satisfactory performance of all work necessary to complete all field painting as specified herein. The Contractor shall responsible for cleaning and removal of corrosive surface on newly installed steel members. No painting shall be allowed unless the newly installed steel members are free from corrosive and surface imperfections.

All members shall meet the requirements of the Standard Specification of the Standard Committee on supplies and shall be in accordance with the latest classification "A" of the Institute of Science in Manila, Philippines and shall be delivered on the work in the original containers with the labels intact and seals unbroken.

Boysen epoxy paint or its approved equivalent shall be used on all surfaces to be painted and certificate of original quality shall be submitted to the Owner for inspection and approved before using any of the paint.

All materials to be used in the work shall be stored in a single place be kept near and clean at all times. Any damages on its surrounding shall be rectified. All precautions to avoid danger of fire must be observed by removing oily rags, waste at the end of daily works.

All exposed works shall be protected while the steel members are being painted. Any dirt, smear, etc. shall be removed by the Contractor to the satisfaction of the Owner.

The work under this section shall include labor, materials, equipment, plant and other facilities for the satisfactory performance of all work necessary to complete all field painting as specified herein.

J.02 Inspection and Preparation of Surfaces

The Contractor shall inspect all surfaces to paint and all defects shall be remedied before starting the work.

No work shall be started unless Contractor shall have made certain as to the dryness of surface. The test shall be made in the presence of the Owner's Engineer to verify dryness of surface to be painted.

Before painting is started, all spaces shall be broom, clean and all dust, dirt, plaster, grease and other extraneous matter which would affect the finish shall be removed.

J.03 Workmanship

All painting shall be done in the workmanlike manner by skilled painters only.

All materials shall be evenly applied on, as to form a film of uniform thickness, free from sags, runs, crawl or other defects. The use of heavy brushes are required and shall be cleaned and in good condition. Paint shall be thoroughly stirred so as to keep the pigment evenly in suspension while paint is being applied.

In general and unless otherwise satisfied, and/ or instructed by the Owner's Engineer or due to actual conditions on the job, not less than one day time shall elapse between application succeeding coats. Each coat of paint shall be allowed to dry thoroughly and inspected for the approval before succeeding coat is applied. No work done shall be done under the conditions that are unsuitable for the production of good results. No painting shall be done while welding is in process or is drying.

Before any painting is started, the Contractor shall furnish the Owner the paint manufacturers detailed painting recommendations as to surface preparations and application plus relevant information regarding the use of the paint.

J.04 Painting

Prime with EPOXY PRIMER for Steel and allow to dry 24 hours apply by brush 2-coats of EPOXY PAINT FINISH (Boysen, Davis or approved equivalent). Allow overnight drying in between coats. The color to be applied is the same color of the existing paint applied in the structure.

PART VII-4 - CIVIL/STRUCTURAL AND SANITARY/PLUMBING WORKS

A. SURVEY AND LAYOUT WORK

General: Under **PART VII-3** Site Development and Utilities work shall also be applied to this term with the additional provisions.

A.01 Construction Survey Requirements

The Contractor shall establish the following:

- a. Column/grid reference system of the building
- b. Boundary or primary perimeter lines of the building
- c. Entrance points of all utilities in the project area
- d. Reference mark to control the floor elevation and other finish grades.

A.02 Interior Layout Work

As the work progresses, the contractor shall provide the reference points throughout each interior area, which are necessary to facilitate detailed layout of partitions, doors, windows, equipment foundation, ceilings and other structures.

All layouts, locations and dimensions shall be rechecked and verified in the plans by the contractor before starting any work items of the project.

B. EXCAVATION AND BACKFILLING FOR BUILDINGS AND CONCRETE TANKS

B.01 Scope of Work

The Contractor shall furnish all labor, materials, equipment, plant and other facilities and perform all work necessary to complete the preparation of site, excavation, filling and grading in strict compliance with the applicable drawings and as specified herein.

B.02 Stake and Batter Boards

The Contractor shall stake out the buildings accurately and establish grades, after which the approval of the Owner shall be secured before any excavation work is started.

Basic batter boards and basic reference marks shall be erected at the expense of the Contractor, at such places where they will not be disturbed during construction. Materials shall be stored and work shall be conducted in such manner as to preserve all reference marks set.

The Contractor shall construct two (2) permanent benchmarks of previously known elevations near or within the site of construction for determining any settlement that may occur during the progress of construction.

Elevation reading shall be taken on at least four (4) points in the buildings and other related structures. A permanent record of the weekly reading shall be kept at construction site and monthly report thereof shall be submitted to the Owner unless some unusual reading is observed in which case report shall be made immediately.

B.03 Excavation

Excavation work shall commence after the fill has thoroughly compacted and attained the required elevation.

The Contractor shall make all necessary excavation for foundations to grade indicated on the Drawings. All trenches shall be excavated at a neat size, leveled to a line at the bottom, which is ready to receive the foundation. The Contractor shall not excavate to a depth below elevations shown on the Drawings. Work that is excavated to a greater depth than required by the drawings and this specification shall be filled with lean concrete ($f_c' = 13.8 \text{ Mpa}$) at the expense of the Contractor.

No footings shall rest on fill. If the excavations for foundation reveal that footing will rest on fill, excavations shall be carried until the desired stratum is reached for safe bearing. All excavations shall be made with proper allowance made for floor slabs and forms. Bottom of footing and foundations shall be approximately level, clean and clear of loose materials with the lower section true to size.

All excavation for drainage, sewer and water services, and other underground utilities, which are within the property line or scope of work indicated on the Plans, are included.

Sheathing shall be driven below the bottom of excavation deep enough. Where walls or footings are to be poured without forms, trench sides shall be sharp and true.

The Contractor, at all times protects the excavation and trenches from damage due to water. He shall provide pumps and equipment, build enclosures and shall construct and maintain temporary drainage and do all pumping necessary to keep the excavation free of water. Sheet piling if needed shall be provided and tightly driven, shored and braced to maintain its position until removed.

B.04 Utilities

When encountered in work or as indicated, protect the existing active sewer, water, gas, electric, other utility services, and structures, when required for proper execution of work, relocate them as directed. If encountered, requiring protection or relocation, request in writing for decision of the Owner. Do not proceed until written instructions are obtained.

B.05 Backfilling, Grading and Compaction

After forms have been removed from footings, beams, foundations, walls, etc., and when the concrete work has attained full designed strength, backfill shall be placed free from waste and objectionable matters. After the backfill has settled, the Contractor shall fill all shallow places to bring the backfill area to grade.

The Contractor shall grade the site within the area indicated in the scope of work.

All filling materials shall be placed in layers not exceeding 150 mm in thickness, each layer being thoroughly wetted and compacted by rolling or tamping. All fills shall have 95% compaction.

The types of filling materials for buildings shall be selected earthfill and the source shall be approved by the Engineer.

C. CONCRETE WORKS

C.01 Scope of Work

The work shall include all labor, materials, equipment, plant and other facilities for the satisfactory performance of all work necessary to complete all concrete and reinforced concrete work shown on the Drawing and specified herein.

C.02 Concrete and Reinforced Concrete

All concrete and reinforced concrete work shall be done in accordance with the *DPWH Standard Specifications for Highways and Bridges revised 1988 and the current American Concrete Institute "BUILDING CODE REQUIREMENTS FOR THE REINFORCED CONCRETE (ACI 318 – 76)"*.

C.03 Concrete Materials

Portland Cement shall be Type I and shall conform to "Specification for Portland cement (ASTM – C – 150-76a)".

Concrete aggregates shall be well-graded particles of gravel or crushed rock conforming to the *"Specification for Concrete Aggregates (ASTM C33 – 74a)"*.

The maximum size of the aggregates shall not be larger than 1/5 of the narrowest dimension between forms nor larger than 3/4 of the minimum clear spacing between reinforcing bars nor larger than 25 mm in diameter.

Larger diameters of aggregates may be allowed in massive concreting with written permissions from the Owner.

Water used in mixing concrete shall be clean and free from injurious amount of oil, acid, alkali, salt, organic matter or other deleterious substances.

All reinforcing bars used shall be deformed and shall be free from rust, oil, defects, grease or kinks.

All reinforcing steel bars shall conform to the *PHILIPPINE STANDARD GRADE DSB 275*.

C.04 Forms

The Contractor shall provide forms that will produce correctly aligned concrete. Plastering in general shall not be allowed so that extra care shall be exercised by the Contractor in choice of fitting, and rigid supporting of the forms. Plywood, metal or surfaced lumber forms shall be used for all exposed concrete works.

Column forms shall be checked for plumpness before concrete is poured. Handholds shall be provided in column forms at lowest points of per lifts to render this space accessible for cleaning.

Forms and shoring shall not be removed until the concrete is adequately set and strong enough to withstand anticipated loading, and in no case less than seven (7) days after pouring.

All girders, beams, centering shall be crowned at least 25 mm in all direction from every eight (8) meters span. However, chambers for all cantilevers shall be as indicated in Plans or obtained from the Owner.

C.05 Storage of Materials

Cement shall be stored immediately upon arrival at the site in substantial, weatherproof bodegas, with a floor raised from the ground sufficiently high to be free from dampness.

Aggregates shall be stored in such a manner as to avoid the inclusion of other/foreign materials.

Reinforcing bars shall be placed in racks raised above the ground and protected from moisture and vegetation.

C.06 Samples and Testing

Testing except as otherwise specified herein shall be performed by an approved testing agency as proposed by the Contractor and approved by the Owner at no additional cost to the Owner.

Cement: Sampled either at the mill or at the site of the work and tested by an approved independent commercial or national testing laboratory at no additional cost to the Owner. Certified copies of laboratory test reports shall be furnished for each lot of cement and shall include all test data results and certificates that the sampling and testing cement shall be used until notice has been given by the Owner that the test results are satisfactory. Cement that has been stored, other than in bins at the mills, for more than four (4) months after delivery to the site shall be retest before use. Cement delivered at the site and later found under the test to be unsuitable shall not be incorporated into the permanent works.

Aggregates: Tested as prescribed in ASTM C 33.

Reinforcement: Certified copies of mill certificates of tests shall accompany deliveries of steel bar reinforcement. If requested by the Owner, additional testing of the materials shall be made at the Contractor expense.

Concrete Test: Provide for test purposes three sets of test specimens taken under the instructions of the Owner from each 50 cu. m. or fraction thereof of each class of concrete placed. At least one set of test specimens shall provided for each Class of concrete placed in each 8-hour shift. Each shall consist of two specimens, and shall be made from separate batch. *Samples shall be secured in conformity with ASTM C 172. Test specimens shall be made, cured and packed for shipment in accordance with ASTM C 31.* Cylinders will be tested by and at the expense of the Contractor in accordance with the ASTM C 39. Test specimens will be evaluated separately by the Owner for meeting strength level requirements for each cylinder with CONCRETE QUALITY of ACI 318. The standard age of test shall be 28 days, however 7 days tests may be allowed, with the permission of the Owner provided that the relation between the 7 day and the 28 day strengths on the concrete is established by tests for the materials and proportions used. When samples fail to conform to the requirements for strength, the Owner shall have the right to order a change in the proportions of the concrete mix for the remaining portions of the work at no additional cost to the Owner.

C.07 Proportioning of Concrete Work

Trial design batches and testing to meet requirements of the classes of concrete specified shall be the responsibility of the Contractor. The design mix shall be of consistencies specified herein after in **PART VII-4.C - CONCRETE WORKS**/Test for slump, unit weight, and air content shall be performed in the field under the presence of the Owner.

Concrete Proportioning: Samples of approved aggregate shall be obtained in accordance with the requirements of ASTM D 75. Samples of materials other than aggregate shall be representative of those proposed for the project and shall be accompanied by the manufacturer's test reports indicating compliance with

applicable specified requirements. Trial mixes shall have proportions, consistencies, and air content suitable for the work. Trial mix shall be designed for maximum permitted slump and air content. The temperature of concrete in each trial batch shall be reported. For concrete in each water-cement ratio, at least three test cylinders for each test age shall be made and cured in accordance with ASTM C 39. From these test results, a curve shall be plotted showing the relationship between water-cement.

C.08 Strength Requirement

All concrete, unless otherwise indicated, shall develop a minimum 28 - day cylinder strength of 20.70 MPa.

The Contractor shall submit mix design obtained from at least three standard cylinder samples made in accordance with Section 5.4 of the NSCB, 1991, for the strength required stating the proposed slump and the proportional weights of cement, aggregates and water. The mixes shall be approved by preliminary tests fourteen (14) days before concreting and shall show the required strength. No substitutions shall be made in the materials or mix without additional tests to show that the quality for concrete is satisfactory.

Slump: Tests shall be made in conformity with ASTM C 143, and unless otherwise specified by the Owner slump shall be within the following limits:

<i>Structural Element</i>	<i>Slump of Vibrated Concrete</i>	
	<i>Minimum</i>	<i>Maximum</i>
Concrete	50 mm	70 mm
Wall, Column and girder, beam, 25 cm maximum thickness	50 mm	70 mm
All other concrete	50 mm	100 mm

C.09 Joints

No reinforcement, corner protection angles or other fixed metal items shall be run continuous through joints containing expansion – joint filler, through crack - control joints in slabs on grade and vertical surfaces.

Pre – molded Expansion Joint Filler

Joints with Joint Sealant: At expansion joints in concrete slabs to be exposed, and at the other joints indicated to receive joint sealant, pre-molded expansion joint filler strips shall be installed at the proper level below the elevation with a slightly tapered, dressed and wood strip temporarily secured to the top thereof to form a groove, when surface dry, shall be cleaned of foreign matter, loosed particles, and

concrete protrusions, there filled approximately flush with joint sealant so as to be slightly concave after drying.

Finish of Concrete at Joints: Edges of exposed concrete slabs along expansion joints shall be nearly finished with slightly rounded edging tools.

Construction Joints: Unless otherwise specified herein, all construction joints shall be subject for approval of the Owner. Concrete shall be placed continuously to form a monolithic construction. Fresh concrete may be placed against adjoining units, provided the set concrete is sufficiently hard not to be injured thereby. Joints not indicated shall be made and located in a manner not to impair strength and appearance of the structure.

Placement of concrete shall be at such rate that surfaces of concrete not carried to joint levels will not have attained initial set before additional concrete is placed thereon. Lifts shall terminate at such levels as indicated or as to conform to structural requirements as directed. If horizontal construction joints are required, a strip of 25 mm square – edge lumber, leveled to facilitate removal shall be taken to the inside the forms at the construction joint. Concrete shall be placed to a point 25 mm above the underside of the strip. The strip shall be removed (1) one hour after the concrete has been placed, any irregularities in the joint lines shall be leveled off with a wood float, and all laitance removed. Prior to placing additional concrete, horizontal constructed joints shall be prepared as specified in *BONDING*.

Crack control joints in slabs on grade are specified in ***Part VII-4.C – CONCRETE WORKS/SLABS ON GRADE***.

C.10 Placing Concrete

Concrete shall be transport from mixer to the place of final deposit in a continuous manner, as rapidly as practicable without segregation or loss of ingredient until the approved unit of work is completed. Placing will not be permitted when the sun, heat, wind or limitations of facilities furnished by the Contractor, prevent proper finishing and curing of the concrete. Concrete shall be placed in the forms, as closed as possible in the final position, in uniform approximately horizontal layers not over 300 mm deep. Forms splashed with concrete or form coating shall be cleaned in advance of placing subsequent lifts. Concrete shall not be allowed to drop freely more than 10 m in unexposed work not more than 1.0 m in exposed work; where greater drops are required, tremie or other approved means shall be employed. The discharge of the tremie shall be controlled so that the concrete may be effectively compacted into horizontal layers no more than 300 mm thick, and spacing of the tremie shall be such that segregation does not occur. Concrete to receive other construction shall be smoothed or screeded to the proper level to avoid excessive skimming or grouting. Conduits and pipes shall not be embedded in concrete unless specifically indicated or as directed by the Owner.

Time Interval Between Mixing and Placing: Concrete mixed in stationary mixers and transported by non-agitating equipment shall be placed in the forms within 45 minutes from the time ingredients are charge into the mixing drum. Concrete transported in truck mixers or truck agitator shall be delivered to the site of work

discharge in the forms within 45 minutes from the time that the ingredients are discharge into the mixing drum. Concrete shall be placed in the forms within 45 minutes after discharge from the mixer at the jobsite.

Earth - foundation Placement: Leveling concrete for concrete foundations, exterior slabs and exterior foundations receiving equipment or machinery shall be placed upon undisturbed surfaces conforming to **Part VII-4.B - EXCAVATION AND BACKFILLING FOR BUILDINGS**. The surfaces shall be clean, free from mud and water. The concrete foundations maybe placed over the leveling concrete surfaces.

Conveying Concrete by Chute, Conveyor or Pump: Concrete may be conveyed by chute, conveyor, or pump if approved in writing. In requesting approval, the Contractor shall submit his entire plan of operation for time of discharge of concrete from the mixer to final placement in the forms, and the steps to be taken to prevent the formation of cold joints, in case the transporting of concrete by chute, conveyor or pump is disrupted. Conveyor and pump shall be capable of expeditiously placing concrete at the rate most advantageous to good workmanship. Approval will not be given for chutes or conveyors requiring changes in the concrete materials or design mix for efficient operation.

- a. **Chutes and Conveyors:** Chutes shall be of steel or steel line wood, rounded in cross section rigid in construction, and protected from over flow. Conveyors shall be designed and operated and chute section shall be set, to assure a uniform flow of concrete from mixer to final place of deposit without segregation of ingredients, loss of mortar, or change in slump. The discharge portion of each chute or conveyor shall be provided with a device to prevent segregation. The chute and conveyor shall be thoroughly cleaned before and after each run. Waste material and flushing water shall be discharge outside the forms. When using tilted chutes, the inclination should not be flatter than one (1) vertical and two (2) horizontal. From the outlet/mouth of the chute to the concrete surface, the maximum allowable height shall be 1.50 m.
- b. Pumps shall be operated and maintained so that a continuous stream of concrete is delivered into the forms without air pocket, segregation of change in slump. When pumping is completed, concrete remaining in the pipeline shall be ejected, wasted without contamination of concrete already.
- c. After each operation, equipment shall be thoroughly cleaned and the flushing water shall be splashed outside the forms.
- d. **Placing Concrete Reinforcement:** Where congestion of the steel or other conditions will make placing or compaction of concrete difficult, a layer of mortar shall be first deposited in forms to a depth of approximately 25 cm. Mortar proportions shall be the same as the concrete minus the coarse aggregate.

C.11 Compaction

Immediately after placing, each layer of concrete shall be compacted by internal concrete vibrators supplemented by hand spading, rodding and tamping. Tapping or other external vibration of forms will not be permitted unless specifically approved by the Owner. Vibrators shall not be used to transport concrete inside forms. Internals vibrators submerged in concrete shall maintain a speed of not less than 7,000 impulses per minute. The vibrating equipment at all times shall be adequate in number of units and power to properly consolidate all concrete.

Spare units shall be on hand as necessary to insure such adequacy. Duration of vibrating equipment shall be limited to time necessary to produce satisfactory consolidation without causing objectionable segregation. The vibrators shall not be inserted into lower courses that have begun to set.

Vibrators shall be applied at uniformity spaced points not further apart than the visible effectiveness of the machine.

C.12 Bonding

Bonding/depositing new concrete on or against concrete that has set; The surfaces of the set concrete shall be thoroughly cleaned so as to expose the coarse aggregate and be free of laitance, coatings, foreign matter and loose particles. Forms shall be retightened. The cleaned surfaces shall be moistened, but shall be without free flowing water when concrete is placed.

C.13 Slabs on Grade

Capillary water barrier or surged shall conform to ***PART VII-4.B – EXCAVATION AND BACKFILLING FOR BUILDINGS.***

Concrete shall be compacted, screeded to grade, and prepared for the specified finish. Concrete shall be placed continuously so that each unit of operation will be monolithic in construction. Concrete shall be placed in alternate check board pattern terminating at crack-control joints or construction joints or may be placed in alternative paving lanes as limited by expansion, and contraction joints. Crack-control joints shall be expansion, contraction, or construction joints. Joints not shown shall be lifted at column centerlines and at intermediate intervals so that such panel is shall not be more than 55 sq.m. . Panels shall be approximately square with dimensioning of one side not more than 7.5 m. Forms shall remain in place for at least 12 hours after complete placement.

Construction joints may be formed by the insertion of hard pressed fiberboard strips inserted in the plastic concrete or may be cut with an approved concrete sawing machine, after the concrete has set. Unless otherwise indicated or directed the joints shall be 3 mm wide and depth equal to approximately 1/4 of the slab thickness of the maximum size of the coarse aggregate whichever is greater.

C.14 Finishes of Concrete

Within 12 hours after forms are removed, surface defects shall be remedied as specified herein. Fine and loose material shall be removed. Honeycomb, aggregate pockets, voids over 13 mm in diameter, and holes left by the rods or bolts shall be cut out to solid concrete, reamed, thoroughly wetted, brush-coated with neat cement rout, and filled with mortar. Mortar shall be a stiff mix of 1 part portland cement to not more than 2 parts fine aggregates passing the no. 16 mesh sieve, and minimum amount of water. The color of the mortar shall match the adjoining concrete color. Mortar shall be thoroughly compacted in place.

Holes passing through walls shall be completely filled from the inside face by forcing mortar through to the outside face. Holes, which do not pass entirely through wall, shall be packed full.

Patchwork shall be finished to match adjoining surfaces in texture and color. Patchworks shall be damp curing for 72 hours. Ambient temperature shall not be less than 10 degrees C. Dusting of finish surfaces with dry material or adding water to concrete surfaces will not be permitted.

C.15 Concrete Finished for Slabs

Slabs Receiving Concrete Paving: After concrete is placed and consolidated, slab shall be screed or struck off and no further finish is required.

Smooth Finish: Required only when specified; screed concrete and floats to required level with no coarse aggregate visible. After surface moisture has disappeared and laitance has been removed the surface shall be finished by float and steel trowel.

Broom Finish: Required for paving, stairs and landings; the concrete shall be screed and floated to required finish level with no coarse aggregate visible. After the surface moisture has disappeared and laitance has been removed, surface shall be float finished to an even, smooth finish. The floated surfaces shall be broom with a fiber bristle brush in a direction transverse to the direction of the main traffic.

Tolerance: Smooth and broom finished surfaces shall be true to plane with no deviation in excess of 3 mm in any direction when tested with a 3.0 m. straight edge.

C.16 Finishes of Concrete other than Floor Slabs

Within 12 hours after forms are removed, surfaced defects shall be remedied as specified herein. Honeycomb, aggregate, pockets, voids over 12 mm in diameter, and holes left by the rods or bolts shall be cut out to, reamed and thoroughly wetted, brush coated with neat cement grout and filled with mortar. Mortar shall be a stiff mix of 1 part portland cement and not more than 2 parts fine aggregates passing the no. 16 mesh sieve. Minimum amount of water using white portland cement for all or part of the cement so that when dry, the color of the mortar shall be thoroughly compacted in place. Holes passing entirely through walls shall be completely filled from the inside face by forcing mortar through the wall shall be packed full. Patchwork shall be damp cured for 72 hours protruding portions of bar supports

shall be ground flush with concrete surfaces that will be exposed, painted or plastered directly.

Smooth Finish: After the above operations have been completed, smooth finish shall be given to interior and exterior concrete surfaces that are to be painted or exposed to view. Smooth finished shall consist of thoroughly wetting and then brush-coating the surfaces with cement grout composed by volume of 1 part fine aggregate passing the no. 30 mesh sieve and mix with water to the consistency of thick mixes, so that the final color of grout when dry, will be approximately the same as the color of the surrounding concrete. Grout shall be cork or wood-floated to fill all pits and air bubbles; visible grout film. The grout shall be kept damp by means of fog spray during the setting period. The finish of any area shall be completed in the same day and the limits of a finished area shall be made at natural breaks in the finished surface.

Rough Slab Finish: Slabs to receive full and mortar setting beds shall be screeded with straightedges to bring the surface to the required finish plane with no aggregate visible.

Broom Finish shall be given to exterior surfaces except concrete stairs treads, entrances, and landings for buildings. The concrete shall be screeded and floated to the required finish level with no coarse aggregate visible. After the surface moisture has disappeared and laitance has been removed, surfaces shall be still troweled to an even, smooth finish. The troweled surfaces shall be swept with a fiber bristle brush in a direction transverse to that of the main traffic.

C.17 Curing

Concrete shall be protected against moisture loss, rapid temperature change, mechanical injury from rain or flowing water, for a minimum period of 7 days.

Concrete shall be maintained in a moist condition at temperature above 10 degrees C throughout the specified curing period and until remedied work started under **Part VII-4.C – CONCRETE WORKS/FINISHES OF CONCRETE**. Curing activities shall be started as soon as free water has disappeared from the surface of the concrete after placing and finishing. Form under surfaces shall be moist cured with forms in place for the full curing period or, if other removes forms prior to the end of the curing period approved means. Curing shall be accomplished by any of the following methods of combination thereof, as approved.

Water: Water used in curing shall be reasonably cleaned and free of oil, salt, acid, alkali, or other substances injurious to the concrete. Drinking water may be used for curing test.

Moist Curing: Uniformed surfaces shall be covered with burlap or mats, wetted before placing and over-lap at least 150 mm. Burlap or mats shall be kept continually wet and in intimate contact with the surface. If the forms are removed before the end of the curing period, curing shall be continued on uniformed surfaces, using suitable materials.

D. CONCRETE WATER PROOFING

D.01 Scope of Work

This item shall consist of furnishing all water proofing materials, labor, tools, equipment and other facilities and undertaking the proper work required as shown on the plan and in accordance with this specification and as directed by the Engineer.

D.02 Material Requirements

Liquid water proofing materials shall be Multi-high Quality Water Proofing Film (Castle Brand or equivalent materials) applied in liquid form and shall be approved by the Engineer.

Integral water proofing shall be in accordance with the approved manufacture's recommended amount/ratio of admixture for cement.

D.03 Construction Requirements

D.03.1 Submittals

The Contractor shall submit for approval of the Engineer the manufacture's recommended method of water proof installation/construction.

D.03.2 Surface Preparation

Concrete surface to be applied with water proofing shall be structurally sound clean and free of dirt, loose mortar particles, paints, films oil, protective coats, etc.

All defects shall be properly corrected and carefully formed to provide smooth surface that is free of marks and properly cured prior to application works.

Inside corners where vertical and horizontal structure meet shall be provide with cants measuring 50 mm. or rounded at corners a minimum of 50 mm. radius.

Concrete slabs shall be properly graded to drain rainwater. Provide a minimum pitch of 1 on 100 to satisfactorily drain rainwater freely into the drainage lines, gutters and downspout.

Drainage connections and weep holes shall be set permit the free flow of water.

Any expansion and contraction joint shall be cleaned, primed, fitted with a backing rod and caulked with sealant.

Provide reglets of about 40 mm. deep by 40 mm. wide and 250 mm. above floor along walls or parapets for the termination of the membrane.

Prepared surface shall be cured and kept wet by sprinkling with water at regular intervals for a period of at least three days and allow surface to actually set within seven (7) days.

Ensure that the prepared surface has completely set and all defects repaired.

D.03.3 Application Procedure

Prior to application to multi-high quality water proofing film, concrete surfaces should be sound and cured without the use of curing compound. Apply a coat neutralized to removed oil, dirt and other contaminants.

Apply a primer coat of Cement and Mortar Intensifier (Castle Brand, PME 901) or equivalent (coating of the manufacturer at the rate of 25 square meter per gallon over the surface area to be applied by brush or roller brush (Make mix of PME 901 and 150% of water perfectly).

The prime coat shall be allowed to dry in 40 to 60 minutes, before applying the main water proofing materials.

Apply three (3) coats of Multi-high Quality Water Proofing Film (Castle Brand, PME 202) or equivalent by using brush or roller at the rate of three (3) to four (4) square meters per gallon for three (3) coats at a film dry thickness of 1.0 mm. to 1.2 mm.

Water proofing application/procedure shall conform to manufacturer's specification.

D.03.4 Flood Testing

Flood test for duration of 24 hours shall be undertaken upon completion of water proofing installation to determine any leakage or defect on the materials and/or workmanship.

E. CEMENT AND MASONRY

E.01 Scope of Work

The work under this section shall include all labor, materials, equipment, plant and other facilities and the satisfactory performance of all work necessary to complete all cement and masonry work shown on the Drawings and as specified herein.

Unless otherwise indicated on the Drawings, or specified herein; all materials or work under this section shall be subject to provision under **Part VII-4.C – CONCRETE WORKS**.

E.02 Mortar

Cement mortar shall be one (1) part portland cement and three (3) parts of sand by volume.

Re-tampering is not permitted. No mortar that has stood for more than one (1) hour shall be used. Works shall not be permitted on mortar that has reached its initial set.

E.03 Concrete Hollow Blocks

Concrete hollow blocks shall have a minimum compressive strength of 350 psi. computed from the average of five (5) units based on the average gross area and a minimum of 300 psi. for individual unit. Samples shall be taken at random for every batch/delivery of at least 2,000 pieces and upon the discretion of the Engineer.

E.03.01 Laying of Concrete Hollow Blocks

Do not wet blocks before using. Blocks must be dry when laid.

The first row of blocks must be thoroughly anchored to concrete walls, columns or slabs. Courses shall be laid straight and uniform with regular running bond and vertical faces truly vertical and set true to line. Each block shall be adjusted to its position in the wall while the mortar is still soft and plastic enough to ensure good bond. The position of the block shall never be shifted after the mortar has stiffened. No re-alignment of a block shall be attempted after a higher or following course has been laid.

All horizontal and vertical reinforcing bars shall be anchored 20 diameters into the concrete walls, columns and slabs.

Dowel bars properly spaced are placed into walls, columns or slabs during pouring and hooked to the vertical bar, leaving bar diameter exposed to splice with the reinforcing bars of the hollow block walls during construction.

All units shall be laid with mortar composed of one (1) part portland cement and three (3) parts of sand. Unless otherwise specified or detailed on the drawings, horizontal and vertical joints shall be 10 mm thick with full mortar coverage on the face shells and on the web surrounding the cells to be filled. Reinforcing bars shall have a lap of 40 bar diameters. All horizontal reinforcement must be tied to the vertical reinforcement at their intersection.

After each day's work, uncompleted wall shall be covered with waterproof materials to keep the inside of the blocks dry in case of rain.

E.04 Plain Cement Plaster Finish

All concrete columns, beams, roof beams, exposed concrete hollow block walls and floor surfaces to be applied with plain cement finish shall be clean and evenly wet, slushed with a wash or neat cement and followed by cement mortar 5mm thick which shall be applied with a wooden float to leave the surface straight, true, smooth, plumb and even, and all corner angles and all intersections shall be straight, true and rounded slighted. The use of an approved bond fluid is suggested.

E.05 Vitrified Tiles

E.05.1 Description

This item shall consist of furnishing all vitrified tiles and cementitious material, tools and equipment including labor required in undertaking the proper installation of walls and floor tiles as shown on the Plans and in accordance with this Specification.

E.05.2 Material Requirement

Glazed tiles and trims shall have an impervious face of vitrified materials fused onto the color scheme approved by the Owner.

Walls to be finished with glazed tile wainscoting or elsewhere indicated as shown on Drawings, shall be chipped off, cleaned thoroughly with a wire brush, wetted with clean water and then pointed up solid with 1:2 cement mortar before applying the tile wainscoting.

Unglazed tiles shall be hard dense tile of homogeneous composition, The materials used in the body, the method of manufacture and the thermal treatment determine its color and characteristics.

Vitrified unglazed floor tiles shall be applied in the areas shown in the Plan. Floor tiles installation shall not be started in spaces requiring wall tile until the wall has been installed.

Floor and wall tiles and their accessories shall be first quality free from lamination, serrated edges, chipped-off corners and other imperfections

affecting their quality, appearance and strength. Tiles shall conform to samples approved by the Owner.

Floor and wall tiles shall be of locally manufacture's brand, **EURO TILES** or approved equivalent.

Samples of all floor and wall tiles shall be submitted to the Owner for approval as to color, texture and quality.

F. CARPENTRY WORKS

F.01 Scope of Work

The scope of work shall consist of furnishing all tools, labor, equipment, and materials, unless otherwise specified to complete all carpentry and joinery works shown on the Drawings and specified herein.

F.02 General Provisions

Lumber shall be approved quality of the respective kinds required for the various parts of the work, well seasoned, thoroughly dry and free from large, loose or unsound knots, sap shakes or other imperfections impairing its strength, durability or appearance.

Framing lumber shall be of the rough dimensions unless otherwise shown on the Drawings.

All exposed woodwork shall be smoothly dressed and sandpapered.

ANY LUMBER equally good for the purpose intended may be substituted for the kinds specified, subject to the approval of the Owner. Provided, however, that in the substitution of the cheaper kind of lumber that specified, a reduction in the contract price equal to the difference in the cost of the cost of the two kinds of lumber will be made.

F.03 Fastenings

Fastenings shall be common nails, glue as specified, flat-head wood screws (F.H.W.S), round-head wood screws (R.H.W.S), bolts or lag screws where specified or called for shall be used.

Conceal fastening as much as possible, or if not possible, locate them in inconspicuous places. Where nailing is permitted through woodwork smooth-finished face, conceal nail heads.

F.04 Protection and Storage

Lumber shall be protected and kept under cover both in transit and all at the job site, and shall be carefully piled off the ground and be insured of proper drainage, ventilation, and protection from the weather. Surface of wood framework, and other wood members coming in contact with or embedded in concrete shall be painted with two (2) coats of hot applied asphalt.

The Contractor shall protect all finished wood work and millwork from injury after it has been set in place until the completion and final acceptance of work.

Temporary Supports: Make or provide wood centering or other necessary supports for openings in masonry walls accurately, strongly and well braced and secured in position until masonry has set thoroughly

F.05 Wooden Materials

Unless otherwise shown on the drawings, the Contractor shall use the following lumber in accordance with the schedule below:

- a. Tanguile (select grade) door jamb.
- b. Coco Lumber for scaffoldings, shoring and bracing only.

G. DOORS

G.01 Scope of Work

The work under this Section shall include all labor, materials, hardware, painting, equipment, and other facilities and the satisfactory performance of all work necessary to complete all doors shown on the Drawings and as specified herein.

G.02 Doors

All lumbers for doors and all woodwork of similar nature shall be kiln dried (KD) with not more than fourteen percent (14%) moisture content. All doors shall be done in accordance with full sized details which will be furnished, hereafter to the contractor. Door shall have one and three fourth ($1\frac{3}{4}$) inch finished thickness.

All flush doors shall be done in accordance with full size details and of the lumber specified herein. The plywood edge protection shall consist of ribbetting it around and glued into the outside frame of the door in order to prevent "peeling off" of the plywood veneer at the edges. Doors shall have one and three fourth ($1\frac{3}{4}$) inch finished and shall use $\frac{1}{4}$ " thk. Marine plywood on both faces.

All doors shall be guaranteed against warping, twisting or cracking for a period of twelve (12) months from the date of final acceptance of the finished building. This obligates the Contractor to make good such defects or replace entirely any and all such defective doors.

Panel doors for offices and public toilets shall be made of kiln dried (KD) wooden materials complete with door jamb and accessories.

All flushed type doors/panel door shall be provided with loose pin hinges $3\frac{1}{2}$ " x $3\frac{1}{2}$ ", door lockset "*Schlage*" brand.

All aluminum screen doors to be installed together with wooden panel/flush doors as shown in the plan shall be provided with complete accessories such as door closer, locking mechanism, door bumper and other necessary materials to complete the work.

All Doors as indicated in the plans shall be complete with jambs and accessories.

H. WINDOWS

H.01 Scope of Work

The work under this Section shall include all labor, materials, hardware, equipment, and other facilities and the satisfactory performance of all work necessary to complete all aluminum glass windows shown on the Drawings and as specified herein.

H.02 Materials Requirements (Sliding/Awning/Fixed Aluminum Powder Coated Frame Glass Windows),

- Frame and panel members shall be fabricated from extruded aluminum sections true to details with clean, straight, sharply defined profiles and free from defects impairing strength or durability. Extruded aluminum sections shall conform to the specifications requirements as defined in ASTM B211.
- Screw, nuts, bolts, rivets and other miscellaneous fastening devices shall be made of non-corrosive materials such as aluminum, stainless steel, etc.
- Hardware for fixing and locking devices shall be closely match to the extruded aluminum section and adaptable to the type and method of opening.
- Weather strips shall be provided with good quality
- For Aluminum Glass Windows use 6mm thick glass.

H.03 Construction Requirements

- For all assembly and fabrication works and cut ends shall be true and accurately jointed, free of burrs and rough edges. Cut-out recesses, mortising, grinding operation for hardwares shall be accurately made and properly reinforced when necessary.
- Installation procedure:

Main frame shall consist of head sill and jamb stiles specifically designed and machined to inter-fit and be joined at corners with self-threading screw.

Sliding window shall be provided with nylon sheave. Sliding panel shall be suspended with concealed roller overhead tracks with bottom guide pitch outward and slotted to complete drainage. The sliding panels shall be provided with interior handles. The locking devices shall be spring loaded extruded latch that automatically engages special frame hips.

All joints between metal surfaces and masonry shall be properly caulked.

H.04 Protection

- All Aluminum parts and glasses shall be protected adequately to ensure against damage during transit and construction phase.
- Aluminum analok window and cashier's window for office shall be provide with 10mm square bars grills.

H.05 Cleaning

- The contractor shall be responsible for removal of protective materials and cleaning the aluminum surface including glazing before work is accepted by the Owner.
- Aluminum shall be thoroughly cleaned with kerosene or gasoline diluted with motor and then wipe surface using clean clothings.
- No abrasive cleaning materials shall be permitted in cleaning surface.

H.06 Provision of Aluminum Screen and Iron Grills

- Aluminum powder coated frame sliding/awning windows as shown in the plan shall be provided with aluminum screen/protector.

H.07 Ceiling Works

- Gypsum board 6mm thick ceiling board in metal furring.

I. PAINTING

I.01 Scope of work

The work under this Section shall include all labor, materials, equipment, plant and other facilities and the satisfactory performance of all work necessary to complete all field painting and as specified herein.

I.02 General

Color schemes for the painting of the whole building, complete both inside and outside shall be furnished by the Architect to the Contractor upon request. Color scheme samples required by these Specifications shall be submitted by the Contractor to the Owner for approval. Expenses for sample of color schemes shall be at Contractor's expense.

All exposed work shall be protected while the building is being painted. Any dirt, smears, etc., shall be removed by the Contractor to the satisfaction of the Owner.

I.03 Material

All paint materials shall meet the requirements of the standard specifications of the *Standardization Committee* on supplies and shall be in accordance with latest *Classification Class "A" of the Institute of Science, Manila, Philippines*, and shall be delivered on the work in the original containers, with labels intact and seals unbroken.

Davies Paint or Boysen Paint or equivalent shall be used on all surfaces to be painted and certificate of origin and quality shall be submitted to the Owner for inspection and approval before using any of the paint materials.

The use of ready mixed paint may be allowed in this project, provided, however, that such paint is in accordance with the standard Specification No. 13 of the Philippine Government and that ready mixed paints shall be those listed under "Good Substitutes" only.

Tinting colors for latex shall be the highest grade obtainable. Tinting colors for oil paint shall be color in oil ground in pure linseed oil. Color shall be non-fading. Color pigments shall be used to produce the exact shades of paint which shall conform to the approved color scheme of the building. Except as otherwise noted, color of priming coat shall be white.

All materials to be used in the work shall be stored in a place to be designated by the Owner, and such place shall be kept neat and clean at all times. Any damage on this place and its surroundings shall be rectified. All precautions to avoid danger of fire must be observed by removing oily rags, waste, etc., from the building at the end of daily work.

I.04 Inspection and Preparation of Surface

The Contractor shall inspect all surfaces to be painted and all defects shall be remedied before starting work.

No work shall be started unless the Contractor shall have made certain as to the dryness of surface. Tests shall be made, in the presence of the Owner, to verify dryness of surface to be painted.

Before painting is started, all spaces shall be broom clean and all dust, dirt, plaster, grease and other extraneous matter that would affect the finish work shall be removed.

I.05 Workmanship

All painting work shall be done in workmanlike manner by skilled house painters only.

All materials shall be evenly applied on, so as to form a film of uniform thickness, free from sags, runs, crawl, or other defects. The use of a heavy brush (nylon brushes for oil paints) is required and they shall always be clean and in good condition. Light brushes shall not be permitted. Paint shall be thoroughly stirred so as to keep the pigment evenly in suspension while paint is being applied.

In general and unless otherwise specified, and/or instructed by the Owner or due to actual conditions on the job, not less than 3 days time shall elapse between application of succeeding coats.

Each coat of paint shall be allowed to dry thoroughly and inspected for approval before the succeeding coat is applied. No painting shall be done in damp weather. No work shall be done under conditions that are unsuitable for the production of good results. No painting shall be done while plastering is in process or is drying.

Except where otherwise noted or specified, all paints shall be applied in three (3) coats (priming, body and finish). Each coat shall be brush applied (except as otherwise noted), spread evenly and in full covering body.

Surfaces which cannot be satisfactory finished on the number of coats specified shall have such additional coats, or such preparatory coats and subsequent coats as may be required to produce satisfactory finished work.

Spray gun application shall be used where indicated in color scheme schedule.

Before any painting is started, the Contractor shall furnish the Owner the paint manufacturer's detailed painting recommendation as to surface preparations and applications plus relevant information regarding the use of the paint.

I.06 Concrete and Masonry Surfaces

Surface Preparation

For New Surfaces: Scrapes off loose cement, chalk, dust and other surface deposits. Treat the surface with approved brand of *Masonry Neutralizer*. Mix one (1) liter masonry neutralizer with sixteen (16) liters of water. Apply by brush and make sure that the alkaline surfaces are completely neutralized. In case of doubt, test the surface with red litmus paper. If it turns blue, then the second neutralization will be necessary. Let dry thoroughly. Do not rinse.

For areas affected by high alkalinity, apply one coat of Concentrate Sealer. Allow to dry at least four (4) hours before applying succeeding coats.

Application

Apply approved brand Flat Latex paint or equivalent as primers. Thin with water if necessary. First coat may be tinted with approved brand acrylic paint to the desired color of topcoat. Dry for at least 2-4 hours.

Repair minor surface imperfection with suitable putty. Dry for 24 hours, sand then spot coat with top coat color.

Apply two (2) coats approved brand *Gloss Latex* or equivalent for interior/exterior. Tint with approved brand acrylic paint to the desired color.

I.07 Wood Surfaces

For first coat - apply approved brand *Flat Wall Enamel* paint or equivalent. Repair surface imperfection with glazing putty.

For second and third coat – apply approved brand *Quick Dry Enamel paint or equivalent*. Tint with *approved brand oil tinting color paint*.

I.08 Metal Surfaces

Painting of metal surfaces shall conform to the provision of ***PART VII-3-J. – METAL PAINTING.***

I.09 Wood Preservative

Apply two (2) coats of wood preservatives for all wood surfaces such as flashing and ceiling joist.

I.10 Protection and Cleaning

Protection

- a. Lighting fixtures shall be loosened and removed from contact with surfaces covered and protected, and reset upon completion.

- b. Remove all electric plates, surface hardware, etc., before painting, protected and replace when completed.
- c. The Contractor at his own expense shall make all undue damage to any part or parts of present structure caused by the Contractor, during the execution of the work good.

The Contractor shall, upon completion of work remove all paint, where it has been spilled, splashed, or splattered on the surface, remove all surplus materials, scaffolds, etc., so as to leave premises in perfect condition, acceptable to the Owner.

Finished surfaces shall be solid, even colors; and finished texture free from drops, runs, lumps, brush marks, discoloration and other defects. Before final inspection, any work that has become damaged or discolored shall be touched up or refinished in a satisfactory manner.

All other items or work to painted and not specified herein, but necessary to complete the work shall be painted with appropriate first quality paint and suited to the service and nature of the surface and material in accordance with these Specifications.

J. METAL WORKS

J.1 Codes and Standards

1. All mild reinforcing bars shall be intermediate grade "Deformed Structural" bars conforming to ASTM A-615.
2. All reinforcing bar diameters indicated on the plans should be strictly followed. Any deviation from those specified shall have the written approval.
3. All G.I. shall be schedule 40 or as specified.
4. All corrugated G.I. roofing sheets, flashing, and ridge rolls shall be 0.040mm thick.

J.2 Structural Framing System

Workmanship and finish shall be equal to the best practice for the respective work. All necessary rabbets, lags and bracket shall be provided so that the work can be assembled in a neat and substantial manner. Holes for rods and bolts and screws shall be drilled. Fastenings shall be concealed where practicable. Joints exposed to the weather shall be stored above the ground of platform, skits or other supports, kept free from dirt, grease and other foreign matter and shall be protected as far as practicable from corrosion.

1. Connections for which details are not indicated shall be designed in accordance with the American Institute of Steel Construction (AISC) "Manual O Steel Construction".
2. Welding works shall be done in a manner that will prevent permanent buckling and all weld exposed in the finished works shall be ground smooth.
3. Metal works shall be provided with the proper clearances and fabricated and installed in a manner that will provide expansion and contraction, insure rigidity and provide close fitting of section.
4. All finished and/ or machined faces shall be true to lines and level.
5. All metals shall be true in size and schedule. Extent of structural steel works as shown on drawings. Refer to architectural and structural drawings and details.

K. PLUMBING WORKS

K.01 General

- a. The Contractor shall provide all items, articles, materials, operations, or methods listed, mentioned, or schedule on the drawings and/or herein specified, including all labor, materials, equipment and incidentals necessary and required for their completion.
- b. All fittings, connections, pipings, hidden or embedded in concrete shall be subject to inspection by the Authority before covering.
- c. The drawings and these Specifications as complementary to each other, and any labor or materials called for by either, whether or not called for by both, if necessary for the successful operation of any of the particular type of equipment shall be furnished and installed by the Contractor without additional cost to the Authority. All dimensional locations of fixture, floor drains, risers and pipe chases shall be verified on the architectural drawings and manufacturer's catalogue.
- d. Intent – It is not intended that the drawings shall show every pipe, fitting, valve and appliance. All such items, whether specifically mentioned or not, or indicated on the drawings, shall be furnished and installed if necessary to complete the system in accordance with the best practice of the plumbing trade and to the satisfaction of the Authority.

K.02 Work Included

- a. Work included under this Section shall consist of furnishing all labor, tools, equipment, appliances and materials necessary for complete installation testing and operation of the plumbing system in accordance with these Specifications and all applicable drawings in the contract.
- Inside potable water distribution and supply pipes to fixtures and hose bibs/faucets. The Contractor shall furnish all piping materials and accessories of all water supply line located inside the building structures.
 - Sanitary sewers from the building and their connections to the point of discharge including septic vault as shown in the plans.
 - Drainage system for the entire facilities of the point of discharge including pipes, open canals, sump pit, water treatment tank and catch basin.
 - Soil, waste and vent pipe system within the building
 - Plumbing fixtures, trims and accessories.
 - Furnishing of water meter, ball valve, gate valves, check valves and related accessories.
 - Furnishing and installation of fiber glass and stainless water tank and water pump including control for potable water line
 - Hydrostatic testing and reliability testing.

K.03 Materials

- a. All materials to be used shall conform with the standards below. Use of material shall further be governed by other requirements imposed on other sections of these Specifications.

For Water Pipes

- Blue uPVC Fresh Water Pipes and Fittings shall conform with ASTM and ISO Standards with nominal pressure of 230 psi., Pipe fittings as per manufacturer's specification.

For Sewer and Drainage Line

- Orange uPVC Sanitary Pipe (for 100mm Diameter and below) uPVC Pipe shall conform with ASTM 2729. Pipes and fittings are specified with integral push on bell complete with elastomeric neoprene O-ring gasket on one end and plain leveled on the other end.
 - Orange Gravity Sewer Pipe (for above 100mm Diameter)
 - uPVC Pipe shall conform with the Standard Specification of ISO R-161/ISO 4435, SDR-41 Jointing method shall be solvent cement jointing/rubber ring on joint. Pipe fittings shall be as per manufacturer's specifications.
- b. Alternative Materials – Use of materials not specified in these Specifications may be allowed provided such alternative has been approved by the Owner and provided further that tests, if required, shall be done by an approved agency in accordance with generally accepted standards.
- c. Identification of Materials – each length of pipe, fittings, traps, fixtures and devices used in the plumbing system shall have cast, stamped or indelibly marked on it, the manufacturer's trademark or name, the weight, type and classes of product when required by the standards mentioned above.

K.04 Make of Fixtures

Unless otherwise indicated, water closet (model: C54337, close coupled, jupiter savi type) and lavatory (single hole, 480mm. x 480mm. x 225mm., jupiter savi type) including soap and tissue holders shall be HCG brand or equivalent complete with accessories.

Urinals shall be done as shown on the plan. HCG brand "U-999 Model" or equivalent, Push Valve Type.

Lavatory, faucet shall be, knob type, LF3184 Px, Amazona Model, HCG or equivalent.

Faucets shall be chrome plated, U.S. made.

K.05 Soil, Water, Drain and Vent Pipes **(For Drainage and Sanitary Sewer Lines)**

Underground soil, waste pipes and fittings shall be uPVC Sanitary Pipe, Orange or Brown.

All main vent stacks shall be extended to full size to end above the roofline except where otherwise specifically indicated.

Vent pipes in roof spaces shall run as close as possible to underside of roof, with horizontal piping pitched down to stacks without forming traps. Vertical vent pipes maybe connected into one main vent riser above the highest vented fixtures.

Where end or circuit vent pipe from any fixtures or line of fixtures is connected to a vent line serving other fixtures, the connections shall be at least 1,200 mm above the floor on which the fixtures are located, to prevent the use of any vent line as waste pipe, unless indicated otherwise.

Horizontal waste lines receiving the discharge from two or more fixtures shall be provided with end vents, unless separate venting of fixture is noted.

Rough in for pipes and fixtures shall be carried along the building construction. Correctly located opening of proper sizes shall be provided where required in the walls and floor for the passage of pipes. All items to be embedded in concrete shall be thoroughly cleaned and free from all rust scale and paint,

K.06 Cleanout, Plugs, Test and Traps

Cleanouts shall be the same size as the pipe but cleanouts larger than 100 mm shall not be required.

Every plumbing fixtures or equipment requiring connection to the sanitary drainage system shall be equipped with a trap. Each trap shall be placed as near the fixture as possible. No fixture shall be double-trapped.

K.07 Valves and Faucets for Building

Valves shall be KITZ or equivalent and shall be provided on all supplied fixtures as specified.

All valves shall be gate valves, check valves and ball valves unless otherwise specified or noted on the drawings.

Valves up to and including 50 mm dia. shall be brass with threaded ends, rough bodies and finished trimmings.

Faucets shall be U.S. made, chrome plated.

K.08 Fixtures and Equipment Supports and Fastenings

Stub-outs for sanitary lines, and vents shall be 300 mm above the floor line, and properly capped or else installed ready to receive the fixtures. The entire comfort room shall be properly tiled and finished, complete with doors and windows.

All fixtures shall be supported and fastened in a safe and in satisfactory manner.

Bolts and nuts shall be horizontal and exposed. Bolts, nuts, cap nuts and screw shall be chromium plated and provided with chromium plated brass washer

K.09 Drains and Floor Sinks

Floor drains and floor sinks shall be made of high-grade, strong tough and even grained metals.

K.10 Cleaning

All exposed metal surfaces shall be rid of grease, dirt or other foreign materials.

All plumbing fixtures shall be properly protected from use and drainage during the construction period. At the end of the work and prior to approval, the fixture shall be cleaned as per manufacturer's recommendations to the satisfaction of the Owner.

All pipes, valves and fittings shall be cleaned of grease and sludge, which may have accumulated. The Contractor shall repair any stoppage or discoloration or other damage to parts of the building, its finished or furnishing due to the system without additional cost to the Owner.

K.11 Defective Work

If inspection or test show any defect, such defect work or matter shall be replaced by the Contractor and inspection and tests repeated until satisfactory to the Owner.

K.12 Septic Vault/Water Treatment Tank/Catch Basin

Dimensions and locations are indicated in the plan, cement plaster for all inner linings.

Construction shall conform to Sanitary and Plumbing Code of the Philippines.

All septic vault outlets shall be connected to the nearest drainage system.

The work shall conform to the applicable provision of **PART VII-3.C – CONCRETE WORKS AND PART VII-4.E – CEMENT AND MASONRY WORKS**.

K.13 Galvanized/Black Iron Pipes and Fittings

Galvanized/black steel pipe shall conform to the requirements of “AST M – 120”, and shall be Schedule 40. Fittings for galvanized pipe shall be galvanized malleable iron.

K.14 Installation of Freshwater Piping System (Plan Provided)

From Reservoir to Rectangular, Circular Tank, and Intensive Hatchery - use 100mm (4") ø,PVC pipe (Blue) for main line; use 50mm (2") PVC pipe (Blue) for outlet line; ball valves are of PVC made and slip-on type ended and provide pipe clips/clamps every supply outlet.

K.15 Installation of Aeration Piping System (Plan Provided)

From blower to Rectangular Tank, Circular Tank, and Intensive hatchery - use 50mm (2") ø, PVC pipe (Blue) for main line and 25mm (1") ø, PVC pipe (Blue) for outlet line; use PVC Ball valves and slip-on ended type; pipe clips/clamps must be provided for supply outlet; use 3.750mm (1/8") ø, copper tube for air hose connector/adaptor and installed outlets for each tank.

K.16 Installation of Drain Line and Stand Pipe

Rectangular and Circular Tank - use 50mm (2") ø, PVC pipe (Blue) for drain line and stand pipe; use 150mm (6") ø, S-1000 PVC sanitary pipe for drain line to sump pit.

K.17 Equipment

Installation of 1-unit, Centrifugal Pump, 1HP, with complete accessories for Technician's Quarter.

Installation of 3-units, Roots Blower, 3Hp, with complete accessories for Rectangular Tank, Circular Tank, and Intensive Hatchery.

Installation of 2-units Sewage Pump, 2HP, with complete accessories for Sump pit.

Installation of 1-unit Submersible Pump, with complete accessories for Intensive Hatchery.

K.18 SUPPLY OF LABOR & MATERIALS FOR THE CONSTRUCTION OF 8" DIAMETER x 600 FT DEEPWELL USING ROTARY DRILLING EQUIPMENT INCLUDING GEO RESISTIVITY SURVEY

A. SCOPE OF WORKS

1. Preparation of site and setting-up of drilling equipment
2. Drilling of a 8" dia. x 600 ft. pilot hole including collection of sample every 5 ft. penetration
3. Electric logging & interpretation of result. (LS)
4. Reaming of pilot hole from 8" dia. to 12 ½ " dia. borehole x 600 ft.
5. Installation of 8" dia. x 400 ft. B.I. Sch.40 blank casing
6. Installation of stainless steel well screen 8" dia. x 200 ft.
7. Installation of owner gravel packing of 400 ft.
8. Supply & injection of 75 kgs. of tri-sodium phosphate (LS)
9. Well development by high velocity water jetting for 24 hours
10. Test pumping for 36 hours @ P 2,500.00 / hour. (Power to be supplied by the client).
11. Grouting the annular of 200 ft. Well completion w/c include construction of concrete pedestal & site clearing.

B. CASING MATERIALS

1. 12" dia. x 20 ft. B.I. pipe Sch. 40
2. 8" dia. x 20 ft. B.I. pipe Sch.40
3. 8" dia. x 10 ft. Stainless steel well screens
4. Gravel fill pipe 2" x 200 ft. with screw cap.
5. Gravel packing materials (pebbles).

C. DEEPWELL PUMP AND ACCESSORIES

1. Supply, Delivery and Installation of All Stainless Steel Submersible Pump coupled to 'HITACHI' Submersible Motor 20HP/3PH/230V/3450RPM/60HZ or its Equivalent rated to deliver 150 GPM against 400' TDH including controller, 3" G.I. Sch40 riser pipes, submersible cable, check valve, cable ties, sounding line, suspension wires, etc. for 400ft setting with phase inverter from 1-phase to 3-phase.

K.19 Testing and Commissioning

Pressure testing of the piping system shall be performed as work progresses to detect leaks especially at the pipe joints. Testing shall be done prior to backfilling. Testing shall be made only after all the pipes are properly anchored. Test pressures and procedures as approved by the Engineer.

Pump test shall also be performed to check its performance under actual operating condition. This is done after the installation works so that the whole system including its controls shall be subjected to demonstration test to prove that they operate and function satisfactorily.

All pipes, fittings, valves, joints and couplings found to be defective or cracked during the test should be removed and replaced by the Contractor at his own expense.

PART VII-5 - ELECTRICAL WORKS

A. GENERAL

GENERAL REQUIREMENTS contain requirements essential to these specifications and apply whether or not individually referred to under this section.

A-01 SCOPE OF WORK

The work shall consist of the supply of labor, materials, equipment and other facilities necessary to complete the Electrical Works

All works herein shall comply with the pertinent provisions of the latest edition of the Philippine Electrical Code and is hereby made part of the Contract.

Compliance with the provisions herein shall be Contractor's responsibility to provide as part of the Contract Work and without separate payment therefore.

NOTE: *Expenses for the power connection/tapping from the existing Local Electric Company including electric meter deposit, billing deposit, drop wires and other accessories necessary for the energization of the project shall be provided by the Local Government Unit of Taguig/Bureau of Fisheries and Aquatic Resources.*

A-02 EXECUTION AND INSTALLATION WORKS

The work under this contract shall be done in accordance with the provision of the latest edition of the Philippine Electrical Code, the Rules and Regulations of the Bureau of Labor and Standards and in compliance with the requirements of the local utility company. Nothing contained in these Specifications or shown in the drawing shall be construed as to conflict with national and local ordinance or laws governing the installation of electrical works and all such laws and ordinances are hereby made part of these specifications. The contractor is required to meet the requirement thereof.

A.03 GUARANTEE

The Contractor shall guarantee that the electrical system are free from all grounds and from all defective workmanship and will remain so for a period of one year from the date of acceptance of the work. The Contractor at his owns expense shall remedy any defects, appearing within the aforesaid period.

A.04 WORKMANSHIP

The work throughout shall be executed in the best and most thorough manner under the direction of and to the satisfaction of the BFAR who will interpret the meaning of the Drawings and Specifications and shall have power to reject any work and materials that in his judgment are not in full accordance therewith.

A.04.1 Standard of Materials

All materials shall be new and shall conform to the standards of Underwriter's Laboratories, Inc., IEEE, NEMA and Philippine Standard Agency (PSA) for every case where such a standard has been established for the particular type of materials in questions.

All materials on all systems shall comply with the specifications, and all material, which is not specified, shall be of the best of their respective kind.

A.04.2 Ground Test

The entire installation shall be free from improper grounds and from short circuits. Test shall be made in the presence of the BFAR. Each panel shall be tested with mains connected to the feeder and branches, and all switches closed all fixtures in place and permanently connected, lamps removed or omitted from the sockets and all switches closed. Each individual power feeder shall be tested with the power equipment connected for proper and intended operation. In no case shall the resistance be less than that allowed by the Regulations for Electrical Equipment of Buildings. Failure shall be corrected in a manner satisfactory to the BFAR.

A.04.3 Performance Test

It shall be the responsibility of the Contractor to test all system of the entire electrical installation for proper operational condition. This condition shall apply to the power and lighting installation as well as low voltage and alarm control, signal and communication systems. Where sequence operation is required, the Contractor shall test for proper sequence of the entire electrical installation for satisfactory working condition as approved by the BFAR.

A.04.4 Completion Requirements

Remove waste and debris resulting from this work, as work progresses and upon completion.

Service and adjust moving or mechanical parts for smooth, quiet and proper operating condition.

Touch-up abraded or damaged prime paintings or galvanizing and leave clean and ready for finishing work required.

A.04.5 Trade/Brand Names

Trade/Brand names of equipment are intended only to show the degree of standardization on which the design of the particular work is based and also to avoid ambiguous description of the equipment. The indication of the trade/brand names therefore shall in no way be considered to limit the acceptability of other products of equal or better performances, functions, reliability and durability.

A.04.6 Inspection Test

The Contractor in the presence of the owner's representative shall conduct inspection and tests. These tests shall be for the normal operation of the entire electrical system of the project. The decision made by the owner's representative for correction on any item of work, alteration of incorrect installation, or replacement of defective materials, or any other defects as found by him shall be final and must be complied with by the Contractor within forty-eight (48) hours after receipt of the official written communication before final acceptance can be made.

A.04.7 Temporary Light and Power

The Contractor shall provide, install and maintain adequate incoming service transformer, light feeders, branch circuits, outlets, lamps and fixtures, as required for performance of the work by all trades engaged in the construction of the building structures and installation.

B. LIGHTING SYSTEM

The lighting system shall be complete in every aspect, all as indicated in the plans.

If anything has been omitted in any item of work or material usually furnished which are necessary for the completion of the lighting system work as outline hereunder, then such item must be and hereby included in this section of the work.

Each lighting outlet shall have standard deep 100 mm. Octagonal or square box for each ceiling and bracket fixture installation. Each box shall finish flush against concrete and plaster walls or ceiling, except for exposed work.

The Contractor shall provide and install all lighting fixtures of the size and type as indicated in the drawings. All fixtures shall be wired and installed completely including all lamps

and/or tubes, transformers, ballast, supports, canopies, globes, and other parts and devices necessary for the complete installation and operation.

B.01 RELAMPING

The Contractor shall furnish and install all lamps for the entire lighting fixture installations and shall replace all broken or burned out lamps up to the time that the owner takes final acceptance of the work.

B.02 LIGHTING FIXTURES/ LUMINAIRES

- Weatherproof and dustproof fluorescent fixture, IP65, clear PC diffuser powder coated housing of gray PC, 1M CE cable, terminal block silicon gasket and stainless-steel chips with 18 watts T5 daylight LED lamp.
- Recessed mounted luminaire with mirrorized aluminum reflector and multi-lined satin louvers, 1200 x 300mm, complete with 2x18 watts T5 LED lamp.
- Surface mounted downlight with center glass cover and plain mirrorized reflector; 180mm overall dia. x 195mm height, complete with E27 socket and 1x12 watts LED lamp.

C. WIRING DEVICES

C.01 SWITCHES

Wall switches shall be rated at 15-amps, 240-volts, wide series, one-way or three-way as required. The type of switch shall be tumbler or snap-on as required. Where switches are installed surface mounted, they shall be installed in type FS conduit fittings and provided with surface mounting covers.

Switches shall not arc during switching operations. Wall switches shall be mounted 1400 mm. from center of device to FFL.

C.02 RECEPTACLES

Receptacles outlets shall be flush-mounted, 3-prong, single or duplex rated at 20-amps, 240-volt connection. Type and color of receptacle outlet plates shall be as selected by the Engineer and appropriate samples of outlet and plates shall be submitted prior to purchase of device.

C.03 OUTLET AND SWITCH BOXES

All outlets or whatever kind for all systems, there shall be provided suitable outlet boxes or other fittings specially designed to receive the type of devices to be mounted thereon.

All outlet boxes shall be uPVC type.

Boxes installed in damp or wet locations shall be specifically approved for the purpose and shall be so placed and constructed as to prevent moisture from entering or accumulating within the box.

In walls or ceiling constructed of wood, concrete or other similar materials, boxes and covers shall be flush with finished surfaces. Number of wires and devices contained in the box shall be in accordance with the code. Where necessary flush square outlet boxes shall be fitted with extension rings or raised cover plates.

Boxes shall be securely and rigidly fastened to surface upon which they are mounted or embedded in concrete or masonry, and shall be supported from a structural member of building either directly or by using substantial and approved metal braces.

Standard outlet boxes shall be of the octagonal, square or rectangular shapes and only deep types no less than 54mm depth shall be used for all installations.

D. PULLBOXES AND WIRE GUTTERS

Pull boxes and wire gutters for the pulling or concealment of wires or cables shall be provided where indicated and also where required though not indicated. It shall be made of steel sheets, thickness not less than gauge 16, galvanized and painted with anti-rust primer.

Pull boxes shall be provided on all conduit runs exceeding 30 meters between outlets, and shall be sufficiently set by bolts braces and fasteners. In large pull boxes, cables shall be tied or racked in an approved manner.

E. RACEWAYS AND CONDUITS

E.01 NON-METALLIC CONDUITS

All conduits shall be unplasticized Polyvinyl Chloride (uPVC), schedule 40, and uniformed wall thickness. It shall be compression and impact resistant, non-corrosive, weatherproof. The material shall not support combustion and shall not deteriorate when exposed to sunlight, rain and other elements.

E.02 METALLIC CONDUITS

Conduit shall be Rigid Steel Conduit (RSC), zinc coated high strength steel tubing meeting Philippine Electrical Code specifications and conforming Underwriter's Laboratories, Inc. requirements. The material shall be hot-dipped galvanized inside and out.

For ceiling drop, conduit shall be flexible metal conduit. The material shall be hot-dip galvanized steel and shall have extruded polyvinyl covering with integral ground.

E.03 INSTALLATION OF CONDUIT SYSTEM

Conduits shall be installed and supported in a rigid and satisfactory manner. No conduits shall be used in any system smaller than 20mm (1/2") outside diameter trade size, nor shall have more than four quarter bends in any one run between outlets and/or fittings. When necessary, pull boxes shall be provided as directed by the Engineer.

All cut ends of conduit shall be reamed to remove rough edges. Where a conduit

enters a box or fitting, bushing shall be provided to protect wire from abrasion, unless design of box or fitting is such as to afford equivalent protection.

Raceways shall be installed at right angles or parallel to building lines. Conduit shall be firmly fastened within 300mm of each outlet box fitting or cabinet by means of standard clamps and intermediately spaced no more than 1.0 meter. All clamps, bolts, straps, etc. shall be galvanized and painted metal.

Support and braces may be welded to structural steel with the specific approval of the Engineer. When running over concrete surfaces, the screws shall be held in place by expansion sleeves.

F. WIRES AND CABLES

600 Volt grade wire shall be copper, hard drawn and annealed and shall be of 98% conductivity.

Wire or cable for lighting and power systems shall be plastic insulated type THHN/THWN as noted on plans or as specified. All wires 8.0 mm² and larger shall be stranded unless noted on plans.

No wire smaller than 3.5 mm² shall be used except where otherwise specified. Control leads for motors shall be types THHN/THWN, unless otherwise indicated.

All wires shall be color coded (Red, Yellow, Blue & Green) and shall be as manufactured by *Phelpsdodge, Philflex, Columbia* or its approved equal.

Ungrounded conductors shall have distinct insulation color from grounded and grounding wires. Grounding wires and cables shall be colored green or white or as approved by the Engineer.

F.01 CABLE CONNECTORS

The connection of conductors from sizes 8.0mm² and larger shall be made with copper, solderless, pressure type connectors. Connection shall be done without damaging the individual cable strands. Connectors shall be provided insulators or fish paperboard separators.

F.02 INSTALLATION OF WIRE AND CABLES

Conductors or cable shall not be installed in conduits, raceway until such systems has been completed, nor it be installed until the inside of conduit has been cleaned.

The Contractor shall exercise due care to prevent damage to conductors, insulation or sheathing when pulling wires and cables.

All feeder cables installed shall be continuous from origin to panel or equipment terminations without running splices in pull box except where taps and splices are approved by the Engineer using suitable connectors.

Wires and cables for power and lighting shall be in separate conduit from any wires or cables for communication and signal systems.

Where cable passes through building exterior walls and underground identification tags of non-corrosive materials shall be stamped on each end and every route.

Wires and cables inside panelboards and control boxes shall be bundled by means of plastic straps in a neat and orderly manner.

G. PANELBOARDS

Panelboard shall be as specified in the approved plans.

All protective devices shall meet NEMA and Underwriter Laboratories Inc. specifications. In multiple circuit breakers, all poles shall be interrupted simultaneously during fault conditions.

All busbars and current carrying parts shall be high conductivity copper and shall have current density not more than 1.5 amperes per sq.m. of cross sectional area and shall be heavier where required for mechanical strength. Supply with non-ferrous or galvanized bolts, nuts, washers and other required attachment devices.

Each and every panel shall be provided on the inside of the door, with directory frame protected by a transparent plastic window, containing typed card indicating the member

and designation of the circuits.

All panels shall have grounding bus or lugs with pressure type terminals of sufficient quantity and size and so located inside as to permit easy termination of cables.

Panelboards shall be supplied and installed by Contractor as specified in the plan.

H. CIRCUIT BREAKERS

Circuit breakers shall consist of quick-make, quick break operating mechanism, thermal magnetic trip unit on each pole and enclosed in a molded phenolic case. The thermal magnetic trip unit shall provide time delay overload protection in case of overload and instantaneous trip for short circuit condition in any one pole.

Rating of circuit breaker shall be suitable for each service application and shall be specified as to rated voltage, current, type, frame, size and frequency as manufactured by *Schneider* or *Westinghouse*.

Enclosure of individual circuit breakers or knife switches shall be general purpose NEMA type 1 or rain tight NEMA type 4X or as required according to the specific duty called for.

I. TESTING AND COMMISSIONING

A. General

After completion of the installation the Contractor shall carry out as many tests as necessary to assure the Engineer that the system performance is as specified. The Owner shall be notified a minimum of forty-eight (48 hours) prior to commencement of such tests and shall be given the option of witnessing all such tests.

The works of the Contract will not be considered as having reached a Stage of Practical Completion until all commissioning and testing as required under this Section of the specification has been carried out.

All testing and commissioning shall be carried out in accordance with the methods outline in this section of the Specification except where written approval has been received from the Owner confirming acceptance of an alternative method. Should an alternative method of testing be approved, the Contractor shall be responsible for ensuring that any other items necessary

for satisfactory completion of the testing, and operation are installed or provided at no additional cost to the Employer.

B. Test Instruments

All instruments and appliances required for testing shall be furnished by the Contractor for the duration of the tests. Other instruments specified as a permanent part of the installation may be used for testing purposes. Test instruments shall be tested for accuracy by an approved laboratory and recent test certificates shall be made available to the Owner prior to site testing.

C. Test Reports Forms

The results of all testing and balancing as required under this section of the Specification shall be submitted to the Owner in a net and legible manner.

Typical test report forms will be made available by the Owner indicating the format in which tests results should be submitted should this be necessary. The Contractor shall also forward manufacturer's performance curves or data for all items of equipment.

D. Testing and Commissioning

On completion of the test, the Contractor shall notify the Owner and proceed to operate, test and adjust the necessary adjustment. All components shall be systematically tested for correct operation to ensure an approved installation.

When the Contractor is satisfied the installation is complete, fully operational and meeting the requirements of the code, he shall notify the Owner in writing and an appointment made to inspect the installation to ensure all works and tests have been satisfactorily completed. The Contractor shall allow for attendance during inspection with necessary equipment and skilled labor to test the equipment in the presence of the Owner.

J. MAINTENANCE DIRECT LIABILITY

A. Defects Liability Period

A defects liability period shall apply to the whole of the works installed under this Contract.

During this period the Contractor shall be responsible for the correction of any defects, and the repair or replacement of all faulty equipment.

Any items of equipment repaired or replaced during the Defects Liability Period shall be subject to the conditions of the Defects Liability Period for a further fifty-two (52) weeks from the date of replacement or repair.

B. Instruction of Personnel

The Contractor shall provide an operator skilled in all aspects of the operation and Telephone Installation to thoroughly instruct the building Maintenance Staff in the operation, maintenance and troubleshooting techniques associated with the installation. Alternatively, the Contractor may provide more than one operator, each skilled in a particular aspect of the installation.

The operator or (operators) shall be required to be available on site for a total of forty (40) man hours per week not necessarily during normal working hours, for a period of two (2) weeks from the date of handover of the installation. Reimbursement rates for properly authorized hours in excess of this figure will be subject to agreement with the Employer.

The operator shall also carry out any testing, adjustment or recording of pressure voltage or like data as requested by BFAR during the two week period.

All instruments and appliances required for testing or recording of data shall be furnished by the Contractor for the duration of the tests. The results of all testing and recording of data shall be submitted to the Owner in a neat and legible manner.

C. Operational Maintenance

The Contractor shall allow for and carry out comprehensive maintenance and service of all equipment and machinery installed under this Contract during the Defects Liability Period.

The cost of maintenance of the installation shall be stated as a separate sum as required on the tender form. This cost shall be inclusive of all spare parts and other items necessary.

The maintenance period shall commence from the date of issue of a certificate of Practical Completion of the installation and shall include, but not be limited to the requirements set out in this section.

Maintenance of services and equipment shall be carried out during visits to the site at regular monthly intervals.

Prior to Practical Completion, the Contractor shall prepare a detailed operation service and maintenance schedule setting out the extent of and frequency of service to each item of equipment and machinery.

The Contractor shall submit the draft schedule to the Owner for approval. The approved schedule shall then be used as the basis for all maintenance and service inspections.

At the completion of each inspection, the service schedule and complete service report shall be endorsed by the building Maintenance Engineer and two copies shall be forwarded to the Supervising Engineer within seven (7) days.

Regular service shall include the inspection of all items and equipment including both fixed and moving parts, contacting surfaces and securing mediums.

D. Maintenance Manual

1. On completion of the work and prior to making application for Practical Completion, the Contractor shall supply to the Owner three (3) bound copies of Operating and Maintenance Instruction Manuals covering all equipment installed under or associated under or associated with this specification.
2. The Manuals shall be complied with section tabs and section indexes and shall be bound using rigid plastic-coated covers held together using screws or equal approved method.
3. The Manuals shall clearly indicate in correct sequence, the operation and function of all equipment under both automatic and manual control and shall include complete information on maintenance required for each item of equipment.
4. The information shall be supplemented by all necessary plan layout drawings of reasonable scale, diagrammatic layouts and circuit wiring diagrams.
5. The Manuals shall include in particular, the following information.

- a. General System Description

- b. System Technical Description and Schematic
- c. System Software Description
- d. Maintenance and Operation Instructions
- e. Operating instructions for the operator's positions and telephone stations.
- f. A schedule of maintenance programmed in a logical format indicating weekly, monthly, quarterly, half-yearly, and yearly maintenance requirements and/or recommendations for each item and equipment.
- g. Removable Control Panel Wiring diagrams held in rigid plastic folders with folders securely fixed in the Manuals.
- h. All descriptions on drawings and description shall be in the English Language with texts expressed in clear consistent, readily understandable terms.

E. Training

40 man hours.

K. GENERATORS

Generator-set shall be 100 KVA, Open type (Stand-by), rating shall be as specified in the plans.

The generator set to be supplied and installed shall be rated at as shown stand by power rating, 230V, 1 Phase, 60hz, 1800 RPM. It shall be powered by direction injection diesel engine, electric starting water cooled, 4 stroke turbo charged, US European or Japanese brand, complete with standard accessories such as battery charging alternator, engine shutdown functions etc. During initial start-up, a manufacturer's representative or authorized technician should be present to monitor activities to ensure proper operating procedures are followed and for the training of local operators.

The generator set shall be installed with a fuel day tank. Right circular cylinder shaped, with capacity of 1000 Liters made of 2mm thk ms plate complete with standard accessories such as sight glass, breather pipe, filling hole etc. and concrete pedestal. Initial charge of at least 200 liters is required.

IX. DUTIES AND RESPONSIBILITIES OF BFAR-NCR

1. Grant the Contractor's authorized representative access to its office premises or the project site to perform its obligations, provided that the representative shall be accompanied by the duly assigned BFAR-NCR representative.
2. Ensure that an Inspector should be present/available during inspection.

3. Facilitate the preparation of documents needed to process the payment of the Contractor in accordance with condition set by the Government.
4. Issue a Certificate of Inspection and Acceptance upon determination by the BFAR-NCR that the delivered products are complete and in good condition.

X. PAYMENT SCHEME

Upon completion of requirements of End-User and Issuance of Certificate of Inspection and Acceptance by the BFAR-NCR that the delivered products are complete and in good condition.

I hereby certify that the statement of compliance to the foregoing bill of quantities are true and correct, otherwise, if found to be false either during bid evaluation or post qualification, the same shall give rise to automatic disqualification of our bid.

Name of Company

**Signature over Printed Name of
Authorized Representative**

Date

Section VII. Drawings

(See attached file)

Section VIII. Bill of Quantities

BID PROPOSAL FORM

CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION

Level Up, Rosales St., Brgy. Calzada, Taguig City

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
I.	GENERAL ITEMS					
A.	Mobilization/Demobilization	1.00		l.s.		
B.	Provision of Resident Engineer's Office (including provision of office equipment, furnitures and communication expenses)	1.00		l.s.		
C.	Construction Safety	1.00		l.s.		
D.	Supply of Labor and Materials for the Construction of 8" dia. X 600ft. Deepwell using "Rotary" Drilling Equipment, including Geo Resistivity Survey	1.00		l.s.		
E.	Budgetary Amount for Permits and Clearances	1.00		l.s.		
	Total of I					
II.	SITE DEVELOPMENT					
A.	Clearing and Grubbing	10,000.00		sq.m.		
B.	Removal of Trees	1.00		l.s.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
C.	Excavation	2,108.56		cu.m.		
D.	Gravel Bedding, 50mm thk (Base Coarse)	219.50		cu.m.		
E.	Hauling and Disposal	1.00		l.s.		
F.	Concrete Manhole (Manhole 1, 2, 3, 4, 5, & 6)	1.00		l.s.		
G.	Area Drain Manhole	1.00		l.s.		
	Total of II					
III.	RESERVOIR TANK AND FILTER TANK					
A.	SITEWORKS					
	1. Excavation (Common Soil)	162.10		cu.m.		
	2. Backfill and Compaction	126.60		cu.m.		
	3. Soil Treatment	187.20		sq.m.		
	4. Backfill Materials	181.90		cu.m.		
	5. Gravel Bedding, 50mm thk	9.40		cu.m.		
	Sub-Total of III.A					

B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works, 30MPa					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Footings, Beams, Columns, Shearwall, Suspended Slab, Slab on Grade and Stair	116.25		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Footings, Beams, Columns, Shearwall, Suspended Slab, Slab on Grade and Stair	17,587.08		kgs.		
	3. Formworks and Scaffoldings					
	a. Footings, Beams, Columns, Shearwall, Suspended Slab and Stair	738.72		sq.m.		
	4. Steel Works					
	a. Steel Railing	556.74		kgs.		
	b. Stainless Steel Ladder	3.36		kgs.		
	5. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk	641.10		sq.m.		
	(Interior and Exterior of Tank, Column, Beam, Soffit and Stair)					

	b. Concrete Topping, 50mm thk	146.41		sq.m.		
	c. Epoxy Paint Finish (Stair and Cantilever Slab)	58.17		sq.m.		
	6. Waterproofing Works					
	a. Cementitious Waterproofing (Interior of Tank)	271.24		sq.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	7. Painting Works					
	a. Exterior Wall of Tank, Beams, Columns, Stair Soffit, and Cantilever Slab	369.86		sq.m.		
	b. Interior of Tank	271.24		sq.m.		
	c. Steel Railing	48.57		sq.m.		
	Sub-Total of III.B					
	Total of III					
IV.	RECTANGULAR TANK					
A.	SITEWORKS					
	1. Excavation (Common Soil)	212.20		cu.m.		

	2. Backfill and Compaction	155.90		cu.m.		
	3. Soil Treatment	661.10		sq.m.		
	4. Backfill Materials	356.40		cu.m.		
	5. Gravel Bedding, 50mm thk	33.10		cu.m.		
	Sub-Total of IV.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Footing, Grade Beam and Shearwall (30 MPa)	68.64		cu.m.		
	b. Slab on Grade, 21MPa	111.39		cu.m.		
	c. Column, Lintel beam and Stair (21 MPa)	17.38		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Footing, Grade Beam, Shearwall, Lintel Beam, Column, Slab on Grade and Stair	14,428.07		kgs.		
	3. Formworks and Scaffoldings					

	a. Footing, Grade Beam, Shearwall, Lintel Beam, Column and Stair	731.38		sq.m.		
	4. Roofing Works					
	a. Pedestal					
	a.1 Concrete, 21 Mpa	1.19		cu.m.		
	a.2 Reinforcing Steel Bars (including Tiewire)	609.65		kgs.		
	a.3 Formworks	15.88		sq.m.		
	b. Truss and Roofing					
	b.1 Truss	1.00		lot		
	b.2 Roofing and Accessories	553.00		sq.m.		
	5. Concrete Hollow Blocks					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. 100mm thk CHB, 350 psi. (include mortar and rebars)	15.12		sq.m.		
	b. 150mm thk CHB, 350 psi. (include mortar and rebars)	267.62		sq.m.		
	6. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk	813.02		sq.m.		

	(Interior and Exterior Wall of Tank, including Column and Lintel Beam, Stair)					
	b. Concrete Topping, 50mm thk	521.81		sq.m.		
	c. Epoxy Paint Finish	337.85		sq.m.		
	7. Waterproofing Works					
	a. Cementitious Waterproofing (Interior of Tank)	567.00		sq.m.		
	8. Painting Works					
	a. Exterior Wall of Tank, Lintel Beam, Column and Pedestal	429.98		sq.m.		
	b. Interior of Tank	567.00		sq.m.		
	Sub-Total of IV.B					
	Total of IV					
V.	CIRCULAR TANK					
A.	SITEWORKS					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	1. Excavation (Common Soil)	248.20		cu.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	2. Backfill and Compaction	184.70		cu.m.		
	3. Soil Treatment	923.80		sq.m.		
	4. Backfill Materials	533.40		cu.m.		
	5. Gravel Bedding, 50mm thk	46.20		cu.m.		
	Sub-Total of V.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Footing, Grade Beam and Shearwall (30 MPa)	74.69		cu.m.		
	b. Slab on Grade, 21MPa	166.17		cu.m.		
	c. Column, Lintel beam and Stair (21 MPa)	16.35		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Footing, Grade Beam, Shearwall, Lintel Beam, Column, Slab on Grade and Stair	17,793.92		kgs.		

	3. Formworks and Scaffoldings					
	a. Footing, Grade Beam, Shearwall, Lintel Beam, Column and Stair	830.45		sq.m.		
	4. Roofing Works					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Pedestal					
	a.1 Concrete, 21 Mpa	0.85		cu.m.		
	a.2 Reinforcing Steel Bars (including Tiewire)	441.46		kgs.		
	a.3 Formworks	13.23		sq.m.		
	b. Truss and Roofing					
	b.1 Truss	1.00		lot		
	b.2 Roofing and Accessories	743.00		sq.m.		
	5. Concrete Hollow Blocks					
	a. 100mm thk CHB, 350 psi. (include mortar and rebars)	13.23		sq.m.		
	b. 150mm thk CHB, 350 psi. (include mortar and rebars)	233.60		sq.m.		
	6. Concrete Finishes					

	a. Plain Cement Plaster Finish, 12mm thk	690.29		sq.m.		
	(Interior and Exterior Wall of Tank, including Column and Lintel Beam, Stair)					
	b. Concrete Topping, 50mm thk	800.23		sq.m.		
	c. Epoxy Paint Finish	590.37		sq.m.		
	7. Waterproofing Works					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Cementitious Waterproofing (Interior of Tank)	544.26		sq.m.		
	8. Painting Works					
	a. Exterior Wall of Tank, Lintel Beam and Column	345.30		sq.m.		
	b. Interior of Tank	544.26		sq.m.		
	Sub-Total of V.B					
	Total of V					
VI.	TREATMENT TANK					
A.	SITEWORKS					

	1. Excavation (Common Soil)	15.50		cu.m.		
	2. Soil Treatment	68.90		sq.m.		
	3. Gravel Bedding, 75mm thk	5.20		cu.m.		
	Sub-Total of VI.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Footing, Column and Lintel Beam (21 MPa)	12.56		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Footing, Column and Lintel Beam	973.99		kgs.		
	3. Formworks and Scaffoldings					
	a. Column and Lintel Beam	46.67		sq.m.		
	4. Steel Works					
	a. Ladder Rung (Stainless Steel)	3.00		kgs.		
	5. Concrete Hollow Blocks					

	a. 150mm thk CHB, 350 psi. (include mortar and rebars)	38.75		sq.m.		
	6. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk	113.42		sq.m.		
	(Column, Lintel Beam, Exterior and Interior Wall of Tank)					
	b. Concrete Topping, 50mm thk	62.16		sq.m.		
	7. Waterproofing Works					
	a. Cementitious Waterproofing (Interior of Tank)	119.62		sq.m.		
	8. Painting Works					
	a. Exterior Wall of Tank, Lintel Beam and Column	55.97		sq.m.		
	b. Interior of Tank	57.46		sq.m.		
	Sub-Total of VI.B					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	Total of VI					
VII.	SUMP PIT					
A.	SITEWORKS					

	1. Excavation (Common Soil)	74.80		cu.m.		
	2. Backfill and Compaction	16.30		cu.m.		
	3. Soil Treatment	24.90		sq.m.		
	4. Gravel Bedding, 75mm thk	1.90		cu.m.		
	Sub-Total of VII.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Footing, Shearwall and Slab (21 MPa)	22.05		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Footing, Shearwall and Slab	2,279.12		kgs.		
	3. Formworks and Scaffoldings					
	a. Footing, Shearwall and Slab	126.04		sq.m.		
	4. Steel Works					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	

	a. Ladder Rung (Stainless Steel)	15.10		kgs.		
	5. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk (Interior of Tank)	91.56		sq.m.		
	6. Waterproofing Works					
	a. Cementitious Waterproofing (Interior of Tank)	91.56		sq.m.		
	b. Rubber Waterstop Dumbbell Type, 6" x 1/4"	27.00		l.m.		
	Sub-Total of VII.B					
	Total of VII					
VIII.	INTENSIVE HATCHERY					
A.	SITEWORKS					
	1. Excavation (Common Soil)	29.20		cu.m.		
	2. Backfill and Compaction	25.10		cu.m.		
	3. Soil Treatment	58.50		sq.m.		
	4. Backfill Materials	49.50		cu.m.		
	5. Gravel Bedding, 50mm thk	2.90		cu.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	Sub-Total of VIII.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Column Footing, Grade Beam, Slab on Grade, Column, Roof Beam and Roof Slab (21 MPa)	28.77		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Column Footing, Grade Beam, Slab on Grade, Column, Roof Beam and Roof Slab	2,984.12		kgs.		
	3. Formworks and Scaffoldings					
	a. Column Footing, Grade Beam, Column, Roof Beam and Roof Slab	226.75		sq.m.		
	4. Concrete Hollow Blocks					
	a. 100mm thk CHB, 350 psi. (include mortar and rebars)	16.63		sq.m.		
	b. 150mm thk CHB, 350 psi. (include mortar and rebars)	82.22		sq.m.		
	5. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk (Interior)	144.02		sq.m.		

	b. Plain Cement Plaster Finish, 12mm thk (Exterior)	204.90		sq.m.		
	c. Concrete Topping, 50mm thk	129.44		sq.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	d. Epoxy Paint Finish	45.40		sq.m.		
	6. Waterproofing Works					
	a. Cementitious Waterproofing (Roof Slab)	100.67		sq.m.		
	7. Painting Works					
	a. Interior Wall, Column, Beam and Slab Soffit	144.02		sq.m.		
	b. Exterior Wall, Column, Beam, Soffit and Parapet Wall	204.90		sq.m.		
	8. Supply and Installation of Doors					
	a. D1 - Single Swing Glass Door with 12mm thk Clear Tempered Glass on Powder Coated Aluminum Frame, with Stainless Steel Push Bar (900mmW x 2100mmH)	2.00		sets		
	9. Supply and Installation of Windows					
	a. W1 - Awning Window with 6mm thk Reflective Tempered Glass on Powder Coated Aluminum Frame (1200mmW x 900mmH)	8.00		sets		

	Sub-Total of VIII.B					
	Total of VIII					
IX.	GENERATOR HOUSE					
A.	SITEWORKS					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	1. Excavation (Common Soil)	21.00		cu.m.		
	2. Backfill and Compaction	18.10		cu.m.		
	3. Soil Treatment	20.80		sq.m.		
	4. Backfill Materials	4.30		cu.m.		
	5. Gravel Bedding, 50mm thk	1.00		cu.m.		
	Sub-Total of IX.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Column Footing, Grade Beam, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab (21 MPa)	12.65		cu.m.		

	2. Reinforcing Steel Bars (including Tiewire)					
	a. Column Footing, Grade Beam, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab	1,615.71		kgs.		
	3. Formworks and Scaffoldings					
	a. Column Footing, Grade Beam, Column, Roof Beam and Roof Slab	107.69		sq.m.		
	4. Concrete Hollow Blocks					
	a. 100mm thk CHB, 350 psi. (include mortar and rebars)	10.65		sq.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	b. 150mm thk CHB, 350 psi. (include mortar and rebars)	27.37		sq.m.		
	5. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk (Interior)	50.16		sq.m.		
	b. Plain Cement Plaster Finish, 12mm thk (Exterior)	89.16		sq.m.		
	c. Concrete Topping, 50mm thk	42.13		sq.m.		
	d. Epoxy Paint Finish	11.23		sq.m.		
	6. Waterproofing Works					

	a. Cementitious Waterproofing (Roof Slab)	40.23		sq.m.		
	7. Painting Works					
	a. Interior Wall, Column, Beam and Slab Soffit	50.16		sq.m.		
	b. Exterior Wall, Column, Beam, Soffit and Parapet Wall	89.16		sq.m.		
	8. Supply and Installation of Doors					
	a. D1 - Double Swing Steel Louver Door, with Door Jamb and Complete Accessories (Painted) (1800mmW x 2100mmH)	1.00		set		
	9. Supply and Installation of Windows					
	a. W1 - Decorative Louver Block (1600mmW x 800mmH)	2.00		sets		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	Sub-Total of IX.B					
	Total of IX					
X.	BLOWER AND PUMP HOUSE					
A.	SITEWORKS					
	1. Excavation (Common Soil)	23.30		cu.m.		

	2. Backfill and Compaction	21.90		cu.m.		
	3. Soil Treatment	25.50		sq.m.		
	4. Backfill Materials	10.00		cu.m.		
	5. Gravel Bedding, 50mm thk	1.30		cu.m.		
	Sub-Total of X.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Column Footing, Grade Beam, Wall Footing, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab (21 MPa)	15.08		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Column Footing, Grade Beam, Wall Footing, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab	1,824.89		kgs.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	3. Formworks and Scaffoldings					
	a. Column Footing, Grade Beam, Wall Footing, Column, Roof Beam and Roof Slab	122.56		sq.m.		

	4. Concrete Hollow Blocks					
	a. 100mm thk CHB, 350 psi. (include mortar and rebars)	21.85		sq.m.		
	b. 150mm thk CHB, 350 psi. (include mortar and rebars)	33.31		sq.m.		
	5. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk (Interior)	79.49		sq.m.		
	b. Plain Cement Plaster Finish, 12mm thk (Exterior)	106.26		sq.m.		
	c. Concrete Topping, 50mm thk	49.52		sq.m.		
	d. Epoxy Paint Finish	13.62		sq.m.		
	6. Waterproofing Works					
	a. Cementitious Waterproofing (Roof Slab)	46.11		sq.m.		
	7. Painting Works					
	a. Interior Wall, Column, Beam and Slab Soffit	79.49		sq.m.		
	b. Exterior Wall, Column, Beam, Soffit and Parapet Wall	106.26		sq.m.		
	8. Supply and Installation of Doors					

Item No.	Item Description	BFAR	Bidders Quantity	Unit	Unit Cost	Total Cost
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		Quantity			Estimated Direct Cost Value Added Tax & Mark Ups	
	a. D1 - Single Swing Steel Louver Door, with Door Jamb and Complete Accessories (Painted) (900mmW x 2100mmH)	2.00		sets		
	9. Supply and Installation of Windows					
	a. W1 - Decorative Louver Block (1600mmW x 800mmH)	2.00		sets		
	Sub-Total of X.B					
	Total of X					
XI.	PUMP HOUSE WITH CISTERN TANK					
A.	SITEWORKS					
	1. Excavation (Common Soil)	55.60		cu.m.		
	2. Backfill and Compaction	15.90		cu.m.		
	3. Soil Treatment	14.90		sq.m.		
	4. Backfill Materials	0.80		cu.m.		
	5. Gravel Bedding, 75mm thk	1.10		cu.m.		
	Sub-Total of XI.A					
B.	CIVIL AND ARCHITECTURAL WORKS					

	1. Concrete Works					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Footing, Shearwall, Grade Beam, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab (21 MPa)	20.11		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Footing, Shearwall, Grade Beam, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab	2,293.66		kgs.		
	3. Formworks and Scaffoldings					
	a. Footing, Shearwall, Grade Beam, Column, Roof Beam and Roof Slab	153.91		sq.m.		
	4. Steel Works					
	a. Ladder Rung (Stainless Steel)	8.17		kgs.		
	4. Concrete Hollow Blocks					
	a. 100mm thk CHB, 350 psi. (include mortar and rebars)	7.17		sq.m.		
	b. 150mm thk CHB, 350 psi. (include mortar and rebars)	34.10		sq.m.		
	5. Concrete Finishes					

	a. Plain Cement Plaster Finish, 12mm thk (Interior)	125.31		sq.m.		
	b. Plain Cement Plaster Finish, 12mm thk (Exterior)	65.78		sq.m.		
	c. Epoxy Paint Finish	11.44		sq.m.		
	6. Waterproofing Works					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Cementitious Waterproofing (Interior of Tank and Roof Slab)	83.51		sq.m.		
	7. Painting Works					
	a. Interior Wall, Column, Beam and Slab Soffit	47.85		sq.m.		
	b. Exterior Wall, Column, Beam and Parapet Wall	65.78		sq.m.		
	8. Supply and Installation of Doors					
	a. D1 - Double Swing Steel Louver Door, with Door Jamb and Complete Accessories (Painted) (1800mmW x 2100mmH)	1.00		set		
	9. Supply and Installation of Windows					
	a. W1 - Decorative Louver Block (1600mmW x 800mmH)	2.00		sets		
	Sub-Total of XI.B					

	Total of XI					
XII.	GUARD HOUSE					
A.	SITEWORKS					
	1. Excavation (Common Soil)	27.50		cu.m.		
	2. Backfill and Compaction	23.70		cu.m.		
	3. Soil Treatment	22.40		sq.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	4. Backfill Materials	1.10		cu.m.		
	5. Gravel Bedding, 50mm thk	1.10		cu.m.		
	Sub-Total of XII.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Column Footing, Wall Footing, Slab on Grade, Column, Roof Beam and Roof Slab, including Carcass for Countertop (21 MPa)	8.54		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					

	a. Column Footing, Wall Footing, Slab on Grade, Column, Roof Beam and Roof Slab, including Carcass for Countertop	997.21		kgs.		
	3. Formworks and Scaffoldings					
	a. Column Footing, Wall Footing, Column, Roof Beam and Roof Slab, including Carcass for Countertop	83.68		sq.m.		
	4. Concrete Hollow Blocks					
	a. 100mm thk CHB, 350 psi. (include mortar and rebars)	18.55		sq.m.		
	b. 150mm thk CHB, 350 psi. (include mortar and rebars)	31.55		sq.m.		
	5. Concrete Finishes					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Plain Cement Plaster Finish, 12mm thk (Interior)	45.90		sq.m.		
	b. Plain Cement Plaster Finish, 12mm thk (Exterior)	67.18		sq.m.		
	c. Concrete Topping, 50mm thk	27.98		sq.m.		
	d. Epoxy Paint Finish	8.64		sq.m.		
	6. Tileworks					
	a. Ceramic Floor Tiles, 300mm x 300mm	5.91		sq.m.		

	(for Toilet, including countertop)					
	b. Ceramic Wall Tiles, 300mm x 300mm	15.10		sq.m.		
	(for Toilet: Full Height)					
	7. Ceiling Works					
	a. Gypsum Board Ceiling, 6mm thk	10.76		sq.m.		
	8. Waterproofing Works					
	a. Cementitious Waterproofing (Roof Slab)	24.53		sq.m.		
	9. Painting Works					
	a. Interior Wall/Column	45.90		sq.m.		
	b. Exterior Wall, Column, Beam, Soffit and Parapet Wall	67.18		sq.m.		
	c. Gypsum Board Ceiling	10.76		sq.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	10. Supply and Installation of Doors					
	a. D1 - Single Swing Wooden Panel Door with Door Jamb and Complete Accessories (900mmW x 2100mmH)	1.00		set		

	b. D2 - Single Swing PVC Door with Door Jamb and Complete Accessories (700mmW x 2100mmH)	1.00		set		
	11. Supply and Installation of Windows					
	a. W1 - Sliding Window with 6mm thk Reflective Tempered Glass on Powder Coated Aluminum Frame (1200mmW x 1200mmH)	1.00		set		
	b. W2 - Sliding Window with 6mm thk Reflective Tempered Glass on Powder Coated Aluminum Frame (1000mmW x 1200mmH)	2.00		sets		
	c. W3 - Awning Window with 6mm thk Reflective Tempered Glass on Powder Coated Aluminum Frame (600mmW x 500mmH)	1.00		set		
	Sub-Total of XII.B					
	Total of XII					
XIII.	ELEVATED WATER TANK					
A.	SITEWORKS					
	1. Excavation (Common Soil)	9.90		cu.m.		
	2. Backfill and Compaction	9.20		cu.m.		
	Sub-Total of XIII.A					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	

B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Footing and Pedestal	1.68		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Footing and Pedestal	153.53		kgs.		
	3. Formworks					
	a. Footing and Pedestal	8.62		sq.m.		
	4. Steel Works					
	a. Framing and Railing	1.00		l.s.		
	5. Supply and Installation of Stainless Steel Cylindrical Water Storage Tank (Vertical)					
	a. Stainless Steel Cylindrical Water Storage Tank (Vertical)	1.00		l.s.		
	6. Supply and Installation of PPR Pipe from Elevated Water Tank to Guard House					
	a. PPR Pipe, 1"ø x 4m (PN10)	1.00		l.s.		
	Sub-Total of XIII.B					
	Total of XIII					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
XIV.	PLUMBING WORKS					
A.	GUARD HOUSE					
	1. Sanitary Line					
	a. PVC Pipes and Fittings	1.00		l.s.		
	2. Water Line					
	a. PPR Pipes and Fittings	1.00		l.s.		
	3. Fixtures and Accessories					
	a. Water Closet with Complete Accessories	1.00		set		
	b. Lavatory with Complete Accessories	1.00		set		
	c. Bidet with Complete Accessories	1.00		set		
	d. Kitchen Sink with Complete Accessories	1.00		set		
	Sub-Total of XIV.A					
B.	FILTER TANK SYSTEM OF RESERVOIR					
	1. Blue Pipes and Fittings	1.00		l.s.		

	Sub-Total of XIV.B					
C.	INTENSIVE HATCHERY					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	1. Drain Line					
	a. Blue Pipes and Fittings	1.00		l.s.		
	2. Supply Line					
	a. Blue Pipes and Fittings	1.00		l.s.		
	3. Aeration					
	a. Blue Pipes and Fittings	1.00		l.s.		
	4. Fixture and Pump					
	a. Fiber Glass Jar with Stainless Holder	16.00		sets		
	b. Submersible Pump, 1Hp	1.00		unit		
	c. IBC tank 1000 liters w/ galvanized steel cover and Steel Stand	2.00		sets		
	d. Stainless Steel Tank with Platform(Fry and Rearing Trough)	8.00		sets		

	Sub-Total of XIV.C					
D.	DRAINAGE LINES FOR RECTANGULAR TANK, CIRCULAR TANK, SUMP PIT AND RESERVOIR					
	1. PVC Pipes and Fittings	1.00		l.s.		
	2. Pumps					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Sewage Pump (2HP) - 400-500 Liter/min. (From Sump Pit)	2.00		sets		
	Sub-Total of XIV.D					
E.	WATER SUPPLY SYSTEM OF RECTANGULAR TANK, CIRCULAR TANK, AND INTENSIVE HATCHERY FROM RESERVOIR (SOURCE)					
	1. Blue Pipes and Fittings	1.00		l.s.		
	2. Pumps					
	a. Centrifugal Pump, 1Hp (From Cistern To Elevated Tank)	1.00		unit		
	Sub-Total of XIV.E					
F.	AERATION SYSTEM OF RECTANGULAR TANK, CIRCULAR TANK, AND INTENSIVE HATCHERY					
	1. Blue Pipes and Fittings	1.00		l.s.		

	2. Pumps					
	a. Roots Blower, 3Hp	3.00		units		
	Sub-Total of XIV.F					
G.	SEPTIC TANK (GUARD HOUSE)					
	1. Siteworks					
	a. Excavation (Common Soil)	7.60		cu.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	b. Gravel Bedding, 50mm thk	0.30		cu.m.		
	2. Civil And Architectural Works					
	a. Concrete Works					
	a.1 Footing and Slab (21 MPa)	1.30		cu.m.		
	b. Reinforcing Steel Bars (including Tiewire)					
	b.1 Footing and Slab	61.05		kgs.		
	c. Formworks					

	c.1 Footing and Top Slab	4.13		sq.m.		
	d. Concrete Hollow Blocks with Plain Cement Plaster Finish					
	d.1 150mm thk CHB, 350 psi. (include mortar and rebars)	13.59		sq.m.		
	e. Waterproofing Works					
	e.1 Cementitious Waterproofing (Interior of Septic Tank)	13.62		sq.m.		
	Sub-Total of XIV.G					
H.	FILTER TANK (INTENSIVE HATCHERY)					
	1. Drain Line					
	a. PVC Pipes and Fittings	1.00		l.s.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	Sub-Total of XIV.H					
	Total of XIV					
XV.	ELECTRICAL WORKS					

A.	Conductors and Cables; Raceways, Conduits and Boxes; Wiring Devices and Receptacles; Lighting Luminaires; Panelboards & Circuit Breakers; Generator SetConcrete Works and Solar Light Post; Steel Works and Siteworks	1.00		l.s.		
	Total of XV					
XVI.	RETAINING WALL, PERIMETER FENCE AND GATE					
A.	SITEWORKS					
	1. Excavation (Common Soil)	933.10		cu.m.		
	2. Backfill and Compaction	726.60		cu.m.		
	3. Gravel Bedding, 50mm thk	18.60		cu.m.		
	Sub-Total of XVI.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Retaining Wall, Column Footing, Wall Footing, Column and Lintel Beam (21 Mpa)	255.03		cu.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	2. Reinforcing Steel Bars (including Tiewire)					

	a. Retaining Wall, Column Footing, Wall Footing, Column and Lintel Beam	16,150.10		kgs.		
	3. Formworks and Scaffoldings					
	a. Retaining Wall, Column Footing, Wall Footing, Column and Lintel Beam	1,604.74		sq.m.		
	4. Concrete Hollow Blocks					
	a. 150mm thk CHB, 350 psi. (include mortar and rebars)	252.63		sq.m.		
	5. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk	518.21		sq.m.		
	(Retaining Wall, CHB Wall including Column and Lintel Beam)					
	6. Steel Works					
	a. Cyclone Wire on G.I. Pipe	1.00		l.s.		
	b. Gate (6000mmW x 1900mmH - 1 set; 1500mmW x 1900mmH)	1.00		l.s.		
	7. Painting Works					
	a. Retaining Wall, CHB Wall including Column and Lintel Beam	518.21		sq.m.		
	Sub-Total of XVI.B					

Item No.	Item Description	BFAR	Bidders Quantity	Unit	Unit Cost	Total Cost
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		Quantity			Estimated Direct Cost Value Added Tax & Mark Ups	
	Total of XVI					
	Total Cost					

BID PRICE SUMMARY

CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH
STATION

Level Up, Rosales St., Brgy. Calzada, Taguig City

Item No.	Item Description	Total Cost
I.	GENERAL ITEMS	_____
	Total of I	_____
II.	SITE DEVELOPMENT	_____
	Total of II	_____
III.	RESERVOIR TANK AND FILTER TANK	
A.	SITEWORKS	_____
B.	CIVIL AND ARCHITECTURAL WORKS	_____
	Total of III	_____
IV.	RECTANGULAR TANK	_____
A.	SITEWORKS	_____
B.	CIVIL AND ARCHITECTURAL WORKS	_____
	Total of IV	_____
V.	CIRCULAR TANK	_____
A.	SITEWORKS	_____
B.	CIVIL AND ARCHITECTURAL WORKS	_____
	Total of V	_____
VI.	TREATMENT TANK	_____
A.	SITEWORKS	_____
B.	CIVIL AND ARCHITECTURAL WORKS	_____
	Total of VI	_____
VII.	SUMP PIT	_____
A.	SITEWORKS	_____
	Total of VII	_____
Item No.	Item Description	Total Cost
B.	CIVIL AND ARCHITECTURAL WORKS	_____
	Total of VII	_____

_____Item No.

Item No.	Item Description	Total Cost
XIV.	PLUMBING WORKS	
A.	GUARD HOUSE	
B.	FILTER TANK SYSTEM OF RESERVOIR	
C.	INTENSIVE HATCHERY	
D.	DRAINAGE LINES FOR RECTANGULAR TANK, CIRCULAR TANK, SUMP PIT AND RESERVOIR	
E.	WATER SUPPLY SYSTEM OF RECTANGULAR TANK, CIRCULAR TANK, AND INTENSIVE HATCHERY FROM RESERVOIR (SOURCE)	
F.	AERATION SYSTEM OF RECTANGULAR TANK, CIRCULAR TANK, AND INTENSIVE HATCHERY	
G.	SEPTIC TANK (GUARD HOUSE) H. FILTER TANK (INTENSIVE HATCHERY)	
	Total of XIV	
XV.	ELECTRICAL WORKS	
	Total of XV	
XVI.	RETAINING WALL, PERIMETER FENCE AND GATE	
A.	SITEWORKS	
B.	CIVIL AND ARCHITECTURAL WORKS	
	Total of XVI	
	GRAND TOTAL (In Figure)	

In Words: _____

Contractor's Company: _____

Contractor's Representative: _____

Signature

BID PROPOSAL FORM

CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION

ITEMIZED COST BREAKDOWN

NOTE:

- 1.0 The items, description and quantities given on the first three columns of this list guides only to the Bidder interpreting the plans and specifications. The BFAR is not responsible for any mistakes, inaccuracies, duplications, or omissions in these list special quantities which shall never be a basis for additions nor deletions to the scope of work. Only the entries of the Bidder on the last three columns consisting of his own take off quantities from the plans and his unit cost and corresponding sums shall be considered.
- 2.0 These bills of quantities and costing as prepared by the Bidder cannot be used as basis for claims for any extra work but may only be use solely by the Owner as aid in judging if bid is a responsive bid.
- 3.0 The unit and total bid prices must include all direct and indirect cost/expenses such as overhead, contingencies and miscellaneous (OCM); profit; value added tax, and other obligations of any kind under which the contract must be borne by the Contractor since they are necessary to install, construct and complete the whole of the contract in accordance with the bid documents.

Section IX. Checklist of Technical and Financial Documents

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class "A" Documents

Legal Documents

- ☐ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages) 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 (*attached prescribed format*); **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 (*attached prescribed format*); **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:
 - ☐ Organizational chart for the contract to be bid;
 - ☐ 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;
 - ☐ 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;
 - ☐ Certificate of Site Inspection issued by the NCR Regional Director.
 - ☐ Construction schedule and S-curve;
 - ☐ Project Evaluation and Review Technique (PERT) and Critical Path Method (CPM) signed by Contractor's Project Engineer;
- (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.

The following templates are provided for easy reference, which may also be accessed through this link: <https://www.gppb.gov.ph/downloadables.php>

- 5.2.1. Bid Form for the Procurement of Goods;
- 5.2.3. Price Schedule for Goods Offered from Abroad;
- 5.2.4. Price Schedule for Goods Offered from Within the Philippines;
- 5.2.5. Bid Securing Declaration;
- 5.2.6. Contract Agreement Form for the Procurement of Goods;
- 5.2.8. Omnibus Sworn Statement; and
- 5.2.9. Performance Securing Declaration.

Statement of All Ongoing Government & Private Contracts including contracts awarded but not yet started

Business Name : _____

Business Address : _____

a. Name of Contract b. Amount of the Contract	a. Owner's Name b. Address c. Telephone Nos.	Nature of Work / Kind of Goods	Bidder's Role		a. Date Awarded b. Date Started c. Date of Completion	% of Accomplishment		Value of Outstanding Works/ Undelivered Portion
			Description	%		Planned	Actual	
<u>Government</u>								
<u>Private</u>								
*Continue in separate sheet if necessary						Total Cost		

Note: (In case of no ongoing contract, the bidder shall submit this duly signed form and indicate "No ongoing contracts" or "None" or "Not Applicable (N/A)" under the Column for Name of Contract and Project Cost (first column from left)

This statement shall be supported with:

For Government Contract:

1. Notice of award and/or Contract Agreement and/or Notice to Proceed

For Private:

2. Job order or Purchase Order or any corresponding documents reflecting the Project name and project cost.

Submitted by : _____
(Printed Name and Signature of Authorized Representative)

Designation : _____

Date : _____

Statement Identifying the Single Largest Completed Contract

Business Name : _____
 Business Address : _____

Name of Contract	a. Owner's Name b. Address c. Telephone Nos.	Nature of Work / Kind of Goods	Bidder's Role		a. Amount at Award b. Amount at Completion	a. Date Awarded b. Contract Effectivity c. Date Completed
			Description	%		
<u>Government or Private</u>						

Note: This statement shall be supported with:

For Government Contract:

1. Notice of award (NOA) and/or Contract Agreement and/or Notice to Proceed (NTP)
2. Certificate of Completion of Delivery (CCDs) issued by the Owner or Certificate of Final Acceptance (CFAs) or duly signed Delivery Receipt (DRs) or Official receipt or Sales Invoice or duly accomplished Inspection and Acceptance Reports.

For Private:

1. Job order or Purchase Order or Purchase Request
2. Certificate of Completion of Delivery (CCDs) issued by the Owner or Certificate of Final Acceptance (CFAs) or duly signed Delivery Receipt (DRs) or Official receipt or Sales Invoice

Submitted by : _____
 (Printed Name and Signature of Authorized Representative)
 Designation : _____
 Date : _____

Important Reminders

- *The bidders are encouraged to consult this checklist before submitting their Bid Envelopes on the deadline for the submission and the receipt of Bids. However, this is **by no means exclusive** Bidders must still familiarize themselves with other bid requirements not otherwise included herein such as, but not limited to those in the TOR, Bid Bulletin, Pertinent GPPB guidelines, rules, etc.*
- *All Bidders must submit their bid envelopes in accordance with the ITB Clause No. 15 and BFAR-BAC Online Bidding Procedure.*
- *All documents shall be current and updated and any missing document in the above-mentioned Checklist is a ground for outright rejection of the bid.*
- *All Pages of the documents shall be signed/initialed by the bidder or by his/her authorized representative.*
- *To facilitate the evaluation of the bids, bidders are advised to follow the arrangement in the above-mentioned checklist when placed in an envelope, with documents tabbed and labeled.*

ANNEXES

BFAR – BAC ONLINE BIDDING PROCEDURE

ANNEX A..... Bidder's Kit

ANNEX B..... Adding a password to a .PDF file using Adobe Acrobat Reader DC.

ANNEX C.....Procedure of Accessing the BFAR BAC Online Submission of
Bidding Documents via Google Forms.

“ANNEX A”

BIDDER’S KIT FOR BFAR PROCUREMENT GUIDELINES IN ADOPTING ELECTRONIC SUBMISSION OF BIDS.

(GPPB Resolution No. 09-2020)

I. PRE-REGISTRATION & PRE-BID CONFERENCE

Step 1: Register by completing the information required in the **Google Form** which can be accessed here: <https://forms.gle/9PassK7oCipk8iXD6>

Once completed, submit the form to the Secretariat and wait for an acknowledgement by e-mail.

Step 2: Join the scheduled Pre-Bid Conference by clicking the link provided by the Secretariat through e-mail using **Zoom**. Please make sure that you allow access to the microphone and the camera.

Step 3: Kindly wait for the Secretariat to confirm your entry through Zoom to participate in the pre-bid conference.

Step 4: See attached file as “Annex A” for the House Rules to be observed during the conduct of procurement activities.

II. PREPARATION OF BID (SOFT COPY)

Step 1: Prepare a final scanned copy of your Bid which is divided into two different PDF files:

1. Eligibility Documents & Technical Documents; and
2. Financial Documents
- 3.

Step 2: Set a password for the scanned copy of the Eligibility Documents & Technical Documents and Financial Documents and save as a .PDF file.

Step 3: Compress the file, save the password-protected .PDF file to a ZIP file. Set another password on the ZIP file.

Important: Passwords must be 8-16 characters and contain both numbers and letters/special characters. The bidder is required setting a unique combination for each file and folder. Same passwords for all files are not

allowed. For details on how to set passwords in .PDF file and ZIP file, please see file attached as “Annex B”.

Step 4: For effective documentation of the submitted files, you must comply with the label format below:

1. Both ZIP folder and .PDF file shall be assigned file name
“BFAR Bid Reference No. _____ (Company Name); Legal & Technical Documents”
2. Both ZIP folder and .PDF file shall be assigned file name
BFAR Bid Reference No. _____ (Company Name); Financial Documents”

III. REGISTRATION FOR ONLINE SUBMISSION

Step 1: Register through Google Form, a link will be provided upon request to the BAC Secretariat’s e-mail address: bac.eps@bfar.da.gov.ph at any time before the closing date and time specified in the Bidding Documents by disclosing the following information:

- a) Email Address
- b) Company Name
- c) Company Address
- d) Authorized Representative
- e) Contact No.
- f) Bid Reference
- g) Bid Title
- h) Official Receipt (OR) No.

Upon verification of the Official Receipt (OR), the BAC Secretariat will send the Public Bidding Documents through the given email or shall provide a hard copy upon request. It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity, provided that Bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

Step 2: The BAC Secretariat will send another Google Form link to the bidder, who already purchased the bidding documents, through the given email directing to the “Online Submission of the Bid”

IV. ACCESSING THE GOOGLE FORMS

Step 1: Upon successful login to your email address account. You will now open the Google Form link sent through BAC Secretariat’s e-mail address given above.

Step 2: Click the **FILL OUT FORM** button. *(See attached “Annex C”)*

V. SUBMISSION OF BID

Step 1: Submit your Bids through Google Form at any time before the closing date and time specified in the Bidding Documents.

Step 2: Upon preparation and finalization of the compressed and password-protected files Eligibility & Technical and Financial Documents, a Google Form link will direct you to the page where they can now upload the said requirements. *(See attached “Annex C, Figure 10.1”)*

Step 3: After submission, a copy of the response will be automatically emailed to the address provided by you which can be saved or printed, as proof of the official time of the submission and receipt of bids. *(See attached “Annex C, Figure 11.2”)*

VI. RECEIVING OF THE SUBMITTED BID

The BAC Secretariat will receive the submitted information through Google Forms and will generate a Bid Receipt page for the official time of submission of all bidders, which can be saved or printed.

Bidders may modify their Bid at any time before the deadline for the submission and receipt of bids. Bidders shall send another Bid equally secured, properly identified, and labelled as a **“modification”** of the previously submitted. The time indicated in the latest Bid receipt page generated shall be the official time of submission. Bids submitted after the deadline shall not be accepted.

The BAC Secretariat will not be able to access the documents until the day of the Bid Opening.

VII. BID OPENING PROCESS

The BAC, with the assistance of the Secretariat and Technical Working Group (TWG), shall conduct bid opening via Zoom. Bidders are encouraged to attend the bid opening online. The passwords for the folders (ZIP) and the files (.PDF) shall be disclosed by the bidders only during actual bid opening which may be done via Zoom.

The Secretariat will ask the bidder, who choose to attend via Zoom, the corresponding password of their Bid during the bid opening itself. The official representative of the bidder shall respond promptly in the same chat box with

the passwords when prompted. Bidders are given within five (5) minutes to respond with the passwords. If the bidder does not provide or respond with the password within five (5) minutes, from prompting, it will result in disqualification and the BAC shall move on to the next bid, if any.

The bidder shall first disclose the password for the compressed folder (ZIP file) containing the Eligibility & Technical documents, second disclose the password for the Eligibility & Technical document (.PDF file). The Secretariat will share the screen via Zoom during accessing the submitted Bid.

If the bidder **passed** the Eligibility & Technical requirements, the second password-protected compressed folder containing the Financial Documents and the files contained therein shall be opened in the same manner as the password of the eligibility documents as described above. In no case will a bidder disclose the passwords for the financial folder and the files prior to being declared eligible based on the evaluation of the eligibility documents.

The bidder is given only three (3) attempts to disclose the password per compressed folder (ZIP) and .PDF file to open the documents. If the bidder fails to provide the correct password after the third attempt, their Bid will no longer be considered. The Secretariat shall take and print a screenshot of such inquiries and responses to form part of the records and all incidents should be recorded in the minutes.

In the event that the electronic copy cannot be submitted, opened or is corrupted, the BAC will proceed with the opening of the submitted original hard copy.

Basic House Rules to be observed during BAC Meetings

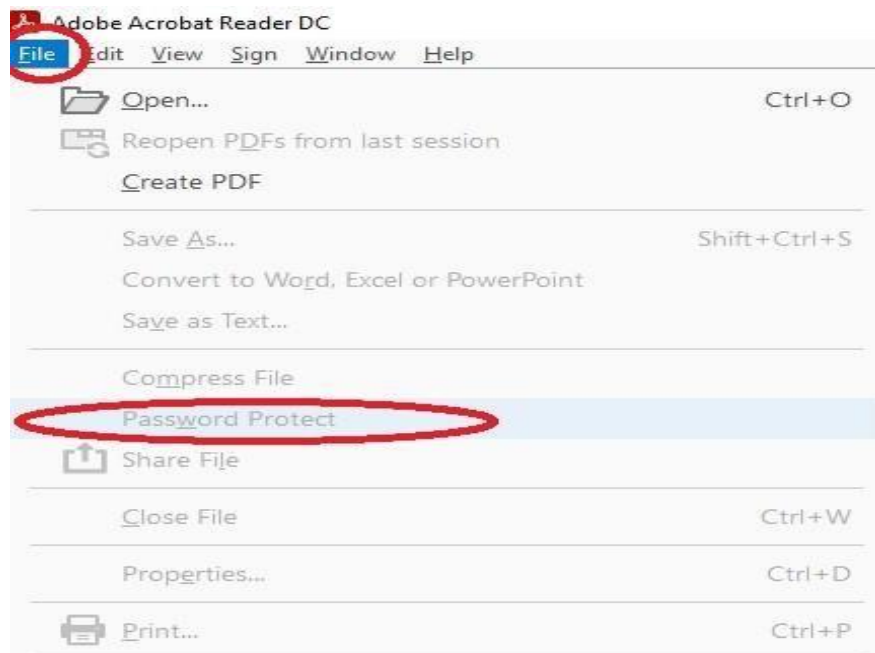
1. Kindly place your microphone on mute when not speaking.
2. Please raise your hand, and wait to be recognized before you speak (remember to toggle off mute).
3. Turn on video for confirmation of your identity.
4. Meeting will start on time. You are advised to enter the VTC room 30 minutes to resolve technical issue, if any.

“ANNEX B”

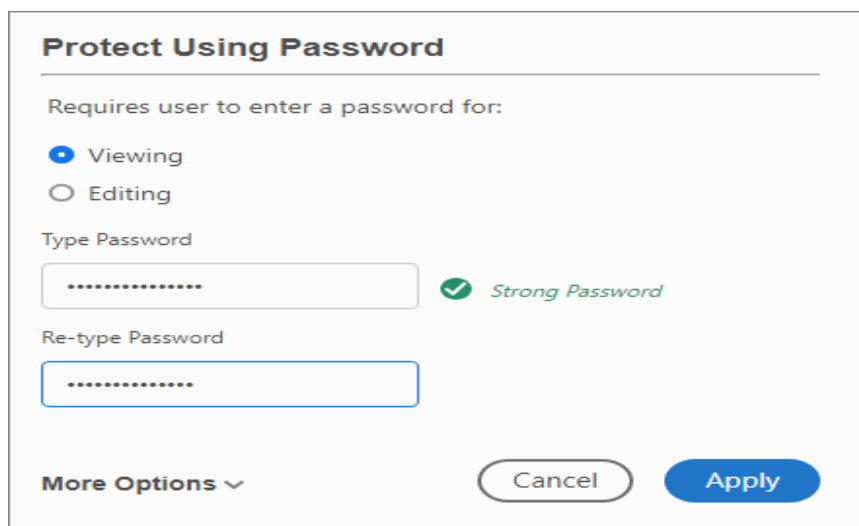
Adding a password to a .PDF file using Adobe Acrobat Reader DC.

One-click option to protect a PDF with a password

1. Open the PDFfile
2. Choose **File > Protect Using Password.**



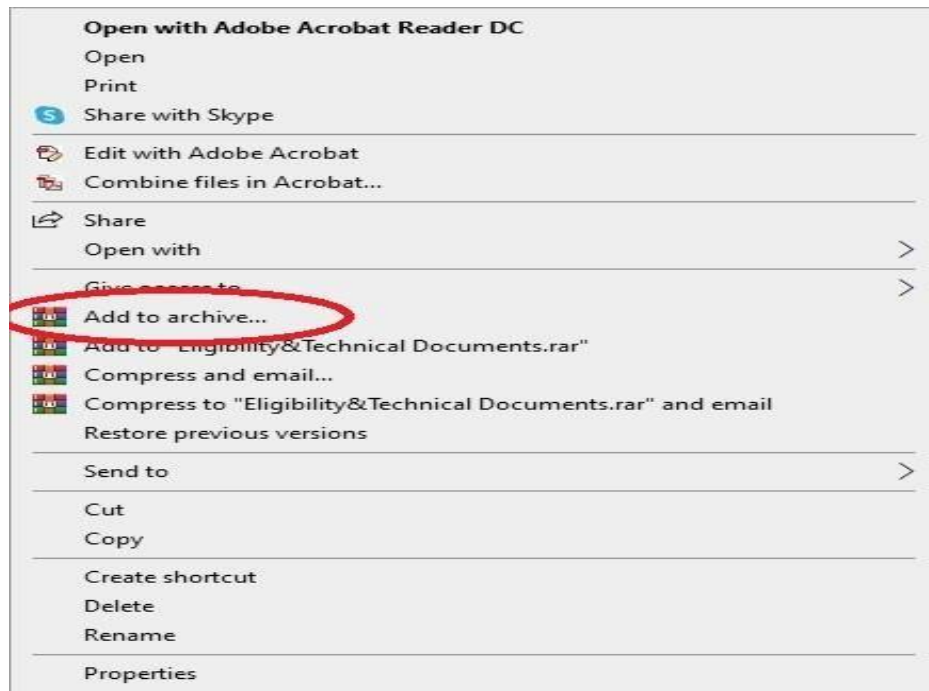
3. Select to set the password for Viewing thePDF.

A screenshot of the 'Protect Using Password' dialog box. The dialog has a title bar 'Protect Using Password'. Below the title bar, it says 'Requires user to enter a password for:'. There are two radio buttons: 'Viewing' (selected) and 'Editing'. Below these, there is a 'Type Password' field with a password mask '.....' and a green checkmark icon with the text 'Strong Password'. Below that is a 'Re-type Password' field with a password mask '.....'. At the bottom, there is a 'More Options' link with a dropdown arrow, a 'Cancel' button, and an 'Apply' button.

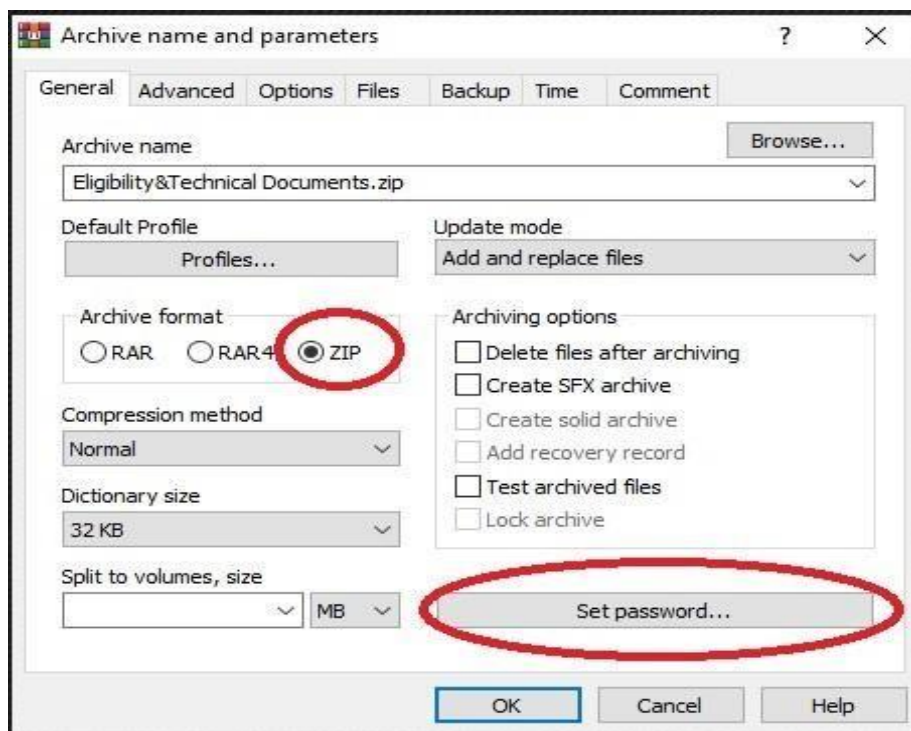
4. Type and retype your password. The password strength is displayed next to your password to indicate whether the chosen password is weak, medium, strong, or best
5. Click **Apply**

File Archiving and Compression using WinRAR application

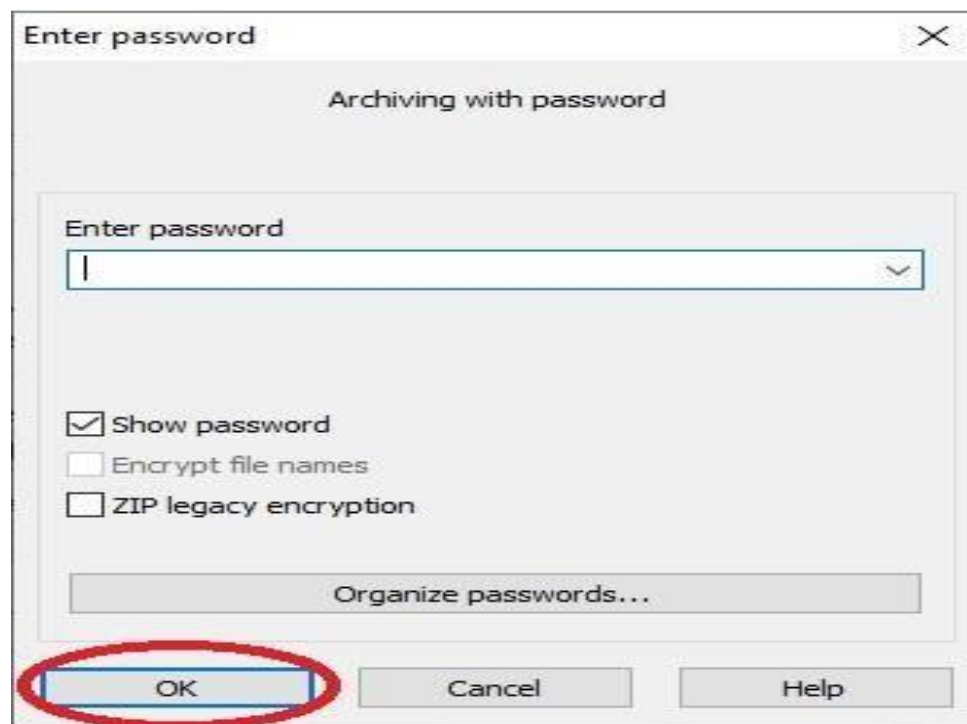
1. Right Click the password protected .PDFfile
2. Select **"Add to archive."**



3. In the Archive name and parameters dialog box, select **"Radio button ZIP"** and click **"Set password"**



4. Type your password and Click **“OK button.”**



“ANNEX C”

Procedure of Accessing the BFAR BAC Online Submission of Bidding Documents via Google Forms.

Step 1. BAC Secretariat will send the Invitation link of Registration Form.

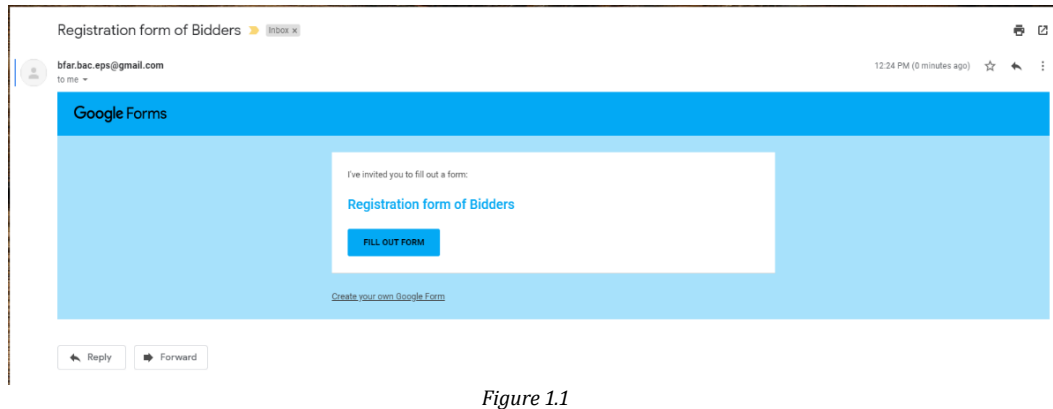
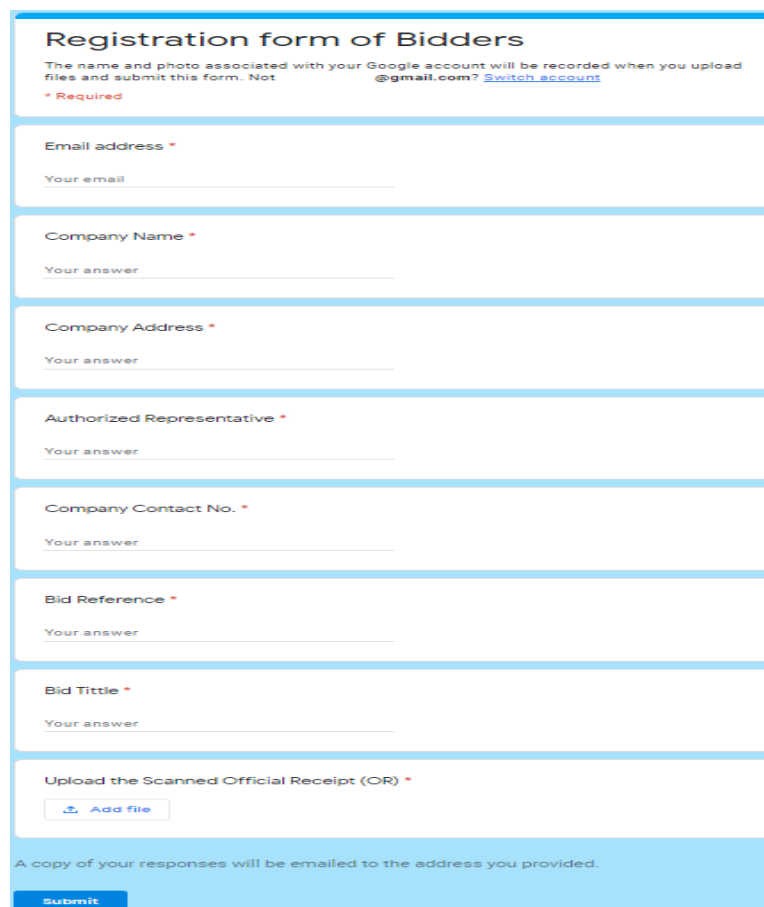


Figure 1.1

Step 2. Upon received, click the **FILL OUT FORM.**

Step 3. Bidder must fill in the following required information

A screenshot of a Google Form titled 'Registration form of Bidders'. The form contains several text input fields, each with a red asterisk indicating it is required. The fields are: 'Email address', 'Company Name', 'Company Address', 'Authorized Representative', 'Company Contact No.', 'Bid Reference', and 'Bid Tittle'. The last field is 'Upload the Scanned Official Receipt (OR)', which has an 'Add file' button. At the bottom of the form is a blue 'Submit' button. A note at the bottom states: 'A copy of your responses will be emailed to the address you provided.'

Step 4. Click the **Add file** to upload Scanned Copy of Official Receipt (OR).

Step 5. After uploading of the Scanned Copy of OR, the bidder shall click the **Submit** button to complete the process and BAC Secretariat shall verify the submitted Official Receipt (OR).

The screenshot displays a Gmail inbox with an email from Google Forms titled "Registration form of Bidders". The email content shows a confirmation message from Google Forms, stating "Thanks for filling out Registration form of Bidders" and "Here's what we got from you:". Below this, the form data is displayed in a structured manner:

- Registration form of Bidders**
- Email address ***: @gmail.com
- Company Name ***: Glue
- Company Address ***: Navotas
- Company Contact No. ***: 0929798498489
- Bid Reference ***: 2020-26
- Bid Title ***: White Glue
- Upload the Scanned Official Receipt (OR) ***: Submitted files: Registration - BFAR BAC.PNG

The interface includes a Gmail header with the Gmail logo and the email title "Registration form of Bidders". The Google Forms logo is also visible at the top of the form content area. The email is dated "Thu, Sep 17, 2020 at 4:31 PM".

Figure 5.1

Step 6. A copy of the response will be automatically emailed to the address provided by the bidders.

Step 7. Upon verification of the Official Receipt (OR), the BAC Secretariat shall send the Public Bidding Documents through the given email or shall provide a hard copy upon request. It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity, provided that Bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

Step 8. The BAC Secretariat will send another Google Form link to the bidder, who already purchased the bidding documents, through email directing to the “Online Submission of the Bid”.

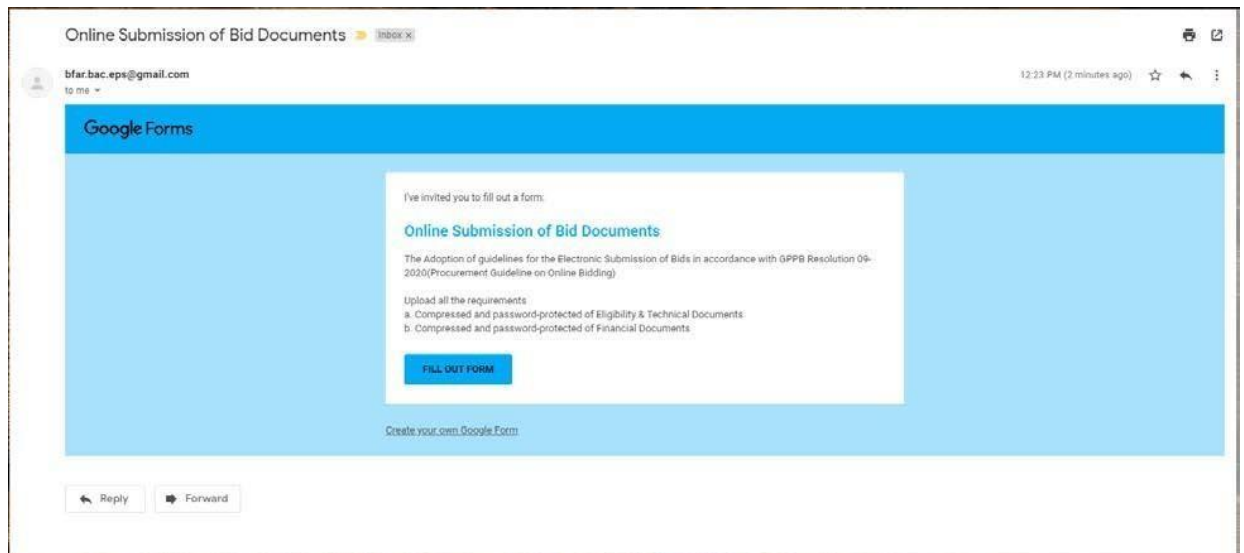


Figure 8.1

Step 9. Upon received, click the **FILL OUT FORM.**

Step 10. Click the **Add file** button to upload the compressed and password-protected files of Eligibility & Technical and Financial Documents

Online Submission of Bid Documents

The Adoption of guidelines for the Electronic Submission of Bids in accordance with GPPB Resolution 09-2020(Procurement Guideline on Online Bidding)

Upload all the requirements

- a. Compressed and password-protected of Eligibility & Technical Documents
- b. Compressed and password-protected of Financial Documents

The name and photo associated with your Google account will be recorded when you upload files and submit this form. Not [@gmail.com?](#) [Switch account](#)

*** Required**

Email address *

Your email

Eligibility & Technical Documents *

[Add file](#)

Financial Documents *

[Add file](#)

A copy of your responses will be emailed to the address you provided.

Submit

Figure 10.1

Step 11. Click the **Submit** button to complete the process. A copy of the response will be automatically emailed to the address provided by the bidder which can be saved or printed by the bidder, as proof of the official time of the submission and receipt of bids.



Figure 11.1

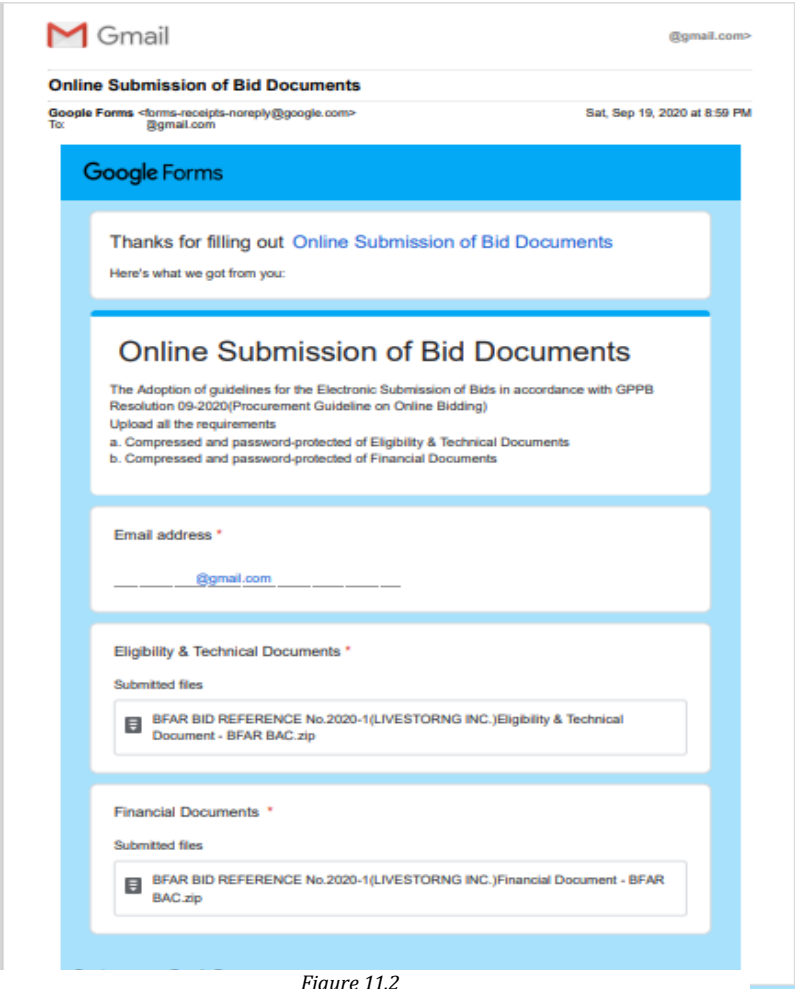


Figure 11.2

IMPORTANT REMINDERS DURING BID OPENING PROCESS

1. Bidders are encouraged to attend the bid opening online via Zoom Application. The passwords for the folders (ZIP) and the files (.PDF) shall be disclosed by the bidders only during actual bid opening.
2. The official representative of the bidder shall respond promptly in the same chat box with the passwords when prompted. Bidders are given within five (5) minutes to respond with the passwords. If the bidder does not provide or respond with the password within five (5) minutes, the BAC Secretariat shall open the submitted hard copy of the bidding documents.
3. The bidder shall first disclose the password for the compressed folder (ZIP file) containing the Eligibility & Technical documents, second disclose the password for the Eligibility & Technical document (.PDF file). The Secretariat will share the screen via Zoom during accessing the submitted Bid.
4. If the bidder fails to provide the correct password after the third attempt, the BAC Secretariat shall open the submitted hard copy of the bidding documents.

BID PRICE SUMMARY

CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION

Level Up, Rosales St., Brgy. Calzada, Taguig City

Item No.	Item Description	Total Cost
I.	GENERAL ITEMS	
	Total of I	
II.	SITE DEVELOPMENT	
	Total of II	
III.	RESERVOIR TANK AND FILTER TANK	
A.	SITEWORKS	
B.	CIVIL AND ARCHITECTURAL WORKS	
	Total of III	
IV.	RECTANGULAR TANK	
A.	SITEWORKS	
B.	CIVIL AND ARCHITECTURAL WORKS	
	Total of IV	
V.	CIRCULAR TANK	
A.	SITEWORKS	
B.	CIVIL AND ARCHITECTURAL WORKS	
	Total of V	
VI.	TREATMENT TANK	
A.	SITEWORKS	
B.	CIVIL AND ARCHITECTURAL WORKS	
	Total of VI	
VII.	SUMP PIT	
A.	SITEWORKS	

Item No.	Item Description	Total Cost
B.	CIVIL AND ARCHITECTURAL WORKS	
	Total of VII	
VIII.	INTENSIVE HATCHERY	
A.	SITEWORKS	
B.	CIVIL AND ARCHITECTURAL WORKS	
	Total of VIII	
IX.	GENERATOR HOUSE	
A.	SITEWORKS	
B.	CIVIL AND ARCHITECTURAL WORKS	
	Total of IX	
X.	BLOWER AND PUMP HOUSE	
A.	SITEWORKS	
B.	CIVIL AND ARCHITECTURAL WORKS	
	Total of X	
XI.	PUMP HOUSE WITH CISTERN TANK	
A.	SITEWORKS	
B.	CIVIL AND ARCHITECTURAL WORKS	
	Total of XI	
XII.	GUARD HOUSE	
A.	SITEWORKS	
B.	CIVIL AND ARCHITECTURAL WORKS	
	Total of XII	
XIII.	ELEVATED WATER TANK	
A.	SITEWORKS	
B.	CIVIL AND ARCHITECTURAL WORKS	

Item No.

Item Description

Total Cost

Total of XIII

Item No.	Item Description	Total Cost
XIV.	PLUMBING WORKS	
A.	GUARD HOUSE	
B.	FILTER TANK SYSTEM OF RESERVOIR	
C.	INTENSIVE HATCHERY	
D.	DRAINAGE LINES FOR RECTANGULAR TANK, CIRCULAR TANK, SUMP PIT AND RESERVOIR	
E.	WATER SUPPLY SYSTEM OF RECTANGULAR TANK, CIRCULAR TANK, AND INTENSIVE HATCHERY FROM RESERVOIR (SOURCE)	
F.	AERATION SYSTEM OF RECTANGULAR TANK, CIRCULAR TANK, AND INTENSIVE HATCHERY	
G.	SEPTIC TANK (GUARD HOUSE)	
H.	FILTER TANK (INTENSIVE HATCHERY)	
	Total of XIV	
XV.	ELECTRICAL WORKS	
	Total of XV	
XVI.	RETAINING WALL, PERIMETER FENCE AND GATE	
A.	SITEWORKS	
B.	CIVIL AND ARCHITECTURAL WORKS	
	Total of XVI	
	GRAND TOTAL (In Figure)	
In Words:		
Contractor's Company:		
Contractor's Representative:		
Signature:		

BID PROPOSAL FORM

CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION

Level Up, Rosales St., Brgy. Calzada, Taguig City

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost	
					Value Added Tax & Mark Ups	
I.	GENERAL ITEMS					
A.	Mobilization/Demobilization	1.00		l.s.		
B.	Provision of Resident Engineer's Office (including provision of office equipment, furnitures and communication expenses)	1.00		l.s.		
C.	Construction Safety	1.00		l.s.		
D.	Supply of Labor and Materials for the Construction of 8" dia. X 600ft. Deepwell using "Rotary" Drilling Equipment, including Geo Resistivity Survey	1.00		l.s.		
E.	Budgetary Amount for Permits and Clearances	1.00		l.s.		
	Total of I					
II.	SITE DEVELOPMENT					
A.	Clearing and Grubbing	10,000.00		sq.m.		
B.	Removal of Trees	1.00		l.s.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
C.	Excavation	2,108.56		cu.m.		
D.	Gravel Bedding, 50mm thk (Base Coarse)	219.50		cu.m.		
E.	Hauling and Disposal	1.00		l.s.		
F.	Concrete Manhole (Manhole 1, 2, 3, 4, 5, & 6)	1.00		l.s.		
G.	Area Drain Manhole	1.00		l.s.		
	Total of II					
III.	RESERVOIR TANK AND FILTER TANK					
A.	SITEWORKS					
	1. Excavation (Common Soil)	162.10		cu.m.		
	2. Backfill and Compaction	126.60		cu.m.		
	3. Soil Treatment	187.20		sq.m.		
	4. Backfill Materials	181.90		cu.m.		
	5. Gravel Bedding, 50mm thk	9.40		cu.m.		
	Sub-Total of III.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works, 30MPa					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Footings, Beams, Columns, Shearwall, Suspended Slab, Slab on Grade and Stair	116.25		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Footings, Beams, Columns, Shearwall, Suspended Slab, Slab on Grade and Stair	17,587.08		kgs.		
	3. Formworks and Scaffoldings					
	a. Footings, Beams, Columns, Shearwall, Suspended Slab and Stair	738.72		sq.m.		
	4. Steel Works					
	a. Steel Railing	556.74		kgs.		
	b. Stainless Steel Ladder	3.36		kgs.		
	5. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk (Interior and Exterior of Tank, Column, Beam, Soffit and Stair)	641.10		sq.m.		
	b. Concrete Topping, 50mm thk	146.41		sq.m.		
	c. Epoxy Paint Finish (Stair and Cantilever Slab)	58.17		sq.m.		
	6. Waterproofing Works					
	a. Cementitious Waterproofing (Interior of Tank)	271.24		sq.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	7. Painting Works					
	a. Exterior Wall of Tank, Beams, Columns, Stair Soffit, and Cantilever Slab	369.86		sq.m.		
	b. Interior of Tank	271.24		sq.m.		
	c. Steel Railing	48.57		sq.m.		
	Sub-Total of III.B					
	Total of III					
IV.	RECTANGULAR TANK					
A.	SITEWORKS					
	1. Excavation (Common Soil)	212.20		cu.m.		
	2. Backfill and Compaction	155.90		cu.m.		
	3. Soil Treatment	661.10		sq.m.		
	4. Backfill Materials	356.40		cu.m.		
	5. Gravel Bedding, 50mm thk	33.10		cu.m.		
	Sub-Total of IV.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Footing, Grade Beam and Shearwall (30 MPa)	68.64		cu.m.		
	b. Slab on Grade, 21MPa	111.39		cu.m.		
	c. Column, Lintel beam and Stair (21 MPa)	17.38		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Footing, Grade Beam, Shearwall, Lintel Beam, Column, Slab on Grade and Stair	14,428.07		kgs.		
	3. Formworks and Scaffoldings					
	a. Footing, Grade Beam, Shearwall, Lintel Beam, Column and Stair	731.38		sq.m.		
	4. Roofing Works					
	a. Pedestal					
	a.1 Concrete, 21 Mpa	1.19		cu.m.		
	a.2 Reinforcing Steel Bars (including Tiewire)	609.65		kgs.		
	a.3 Formworks	15.88		sq.m.		
	b. Truss and Roofing					
	b.1 Truss	1.00		lot		
	b.2 Roofing and Accessories	553.00		sq.m.		
	5. Concrete Hollow Blocks					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. 100mm thk CHB, 350 psi. (include mortar and rebars)	15.12		sq.m.		
	b. 150mm thk CHB, 350 psi. (include mortar and rebars)	267.62		sq.m.		
	6. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk (Interior and Exterior Wall of Tank, including Column and Lintel Beam, Stair)	813.02		sq.m.		
	b. Concrete Topping, 50mm thk	521.81		sq.m.		
	c. Epoxy Paint Finish	337.85		sq.m.		
	7. Waterproofing Works					
	a. Cementitious Waterproofing (Interior of Tank)	567.00		sq.m.		
	8. Painting Works					
	a. Exterior Wall of Tank, Lintel Beam, Column and Pedestal	429.98		sq.m.		
	b. Interior of Tank	567.00		sq.m.		
	Sub-Total of IV.B					
	Total of IV					
V.	CIRCULAR TANK					
A.	SITEWORKS					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost	
					Value Added Tax & Mark Ups	
	1. Excavation (Common Soil)	248.20		cu.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	2. Backfill and Compaction	184.70		cu.m.		
	3. Soil Treatment	923.80		sq.m.		
	4. Backfill Materials	533.40		cu.m.		
	5. Gravel Bedding, 50mm thk	46.20		cu.m.		
	Sub-Total of V.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Footing, Grade Beam and Shearwall (30 MPa)	74.69		cu.m.		
	b. Slab on Grade, 21MPa	166.17		cu.m.		
	c. Column, Lintel beam and Stair (21 MPa)	16.35		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Footing, Grade Beam, Shearwall, Lintel Beam, Column, Slab on Grade and Stair	17,793.92		kgs.		
	3. Formworks and Scaffoldings					
	a. Footing, Grade Beam, Shearwall, Lintel Beam, Column and Stair	830.45		sq.m.		
	4. Roofing Works					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost	
					Value Added Tax & Mark Ups	
	a. Pedestal					
	a.1 Concrete, 21 Mpa	0.85		cu.m.		
	a.2 Reinforcing Steel Bars (including Tiewire)	441.46		kgs.		
	a.3 Formworks	13.23		sq.m.		
	b. Truss and Roofing					
	b.1 Truss	1.00		lot		
	b.2 Roofing and Accessories	743.00		sq.m.		
	5. Concrete Hollow Blocks					
	a. 100mm thk CHB, 350 psi. (include mortar and rebars)	13.23		sq.m.		
	b. 150mm thk CHB, 350 psi. (include mortar and rebars)	233.60		sq.m.		
	6. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk (Interior and Exterior Wall of Tank, including Column and Lintel Beam, Stair)	690.29		sq.m.		
	b. Concrete Topping, 50mm thk	800.23		sq.m.		
	c. Epoxy Paint Finish	590.37		sq.m.		
	7. Waterproofing Works					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Cementitious Waterproofing (Interior of Tank)	544.26		sq.m.		
	8. Painting Works					
	a. Exterior Wall of Tank, Lintel Beam and Column	345.30		sq.m.		
	b. Interior of Tank	544.26		sq.m.		
	Sub-Total of V.B					
	Total of V					
VI.	TREATMENT TANK					
A.	SITEWORKS					
	1. Excavation (Common Soil)	15.50		cu.m.		
	2. Soil Treatment	68.90		sq.m.		
	3. Gravel Bedding, 75mm thk	5.20		cu.m.		
	Sub-Total of VI.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Footing, Column and Lintel Beam (21 MPa)	12.56		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Footing, Column and Lintel Beam	973.99		kgs.		
	3. Formworks and Scaffoldings					
	a. Column and Lintel Beam	46.67		sq.m.		
	4. Steel Works					
	a. Ladder Rung (Stainless Steel)	3.00		kgs.		
	5. Concrete Hollow Blocks					
	a. 150mm thk CHB, 350 psi. (include mortar and rebars)	38.75		sq.m.		
	6. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk (Column, Lintel Beam, Exterior and Interior Wall of Tank)	113.42		sq.m.		
	b. Concrete Topping, 50mm thk	62.16		sq.m.		
	7. Waterproofing Works					
	a. Cementitious Waterproofing (Interior of Tank)	119.62		sq.m.		
	8. Painting Works					
	a. Exterior Wall of Tank, Lintel Beam and Column	55.97		sq.m.		
	b. Interior of Tank	57.46		sq.m.		
	Sub-Total of VI.B					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	Total of VI					
VII.	SUMP PIT					
A.	SITEWORKS					
	1. Excavation (Common Soil)	74.80		cu.m.		
	2. Backfill and Compaction	16.30		cu.m.		
	3. Soil Treatment	24.90		sq.m.		
	4. Gravel Bedding, 75mm thk	1.90		cu.m.		
	Sub-Total of VII.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Footing, Shearwall and Slab (21 MPa)	22.05		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Footing, Shearwall and Slab	2,279.12		kgs.		
	3. Formworks and Scaffoldings					
	a. Footing, Shearwall and Slab	126.04		sq.m.		
	4. Steel Works					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Ladder Rung (Stainless Steel)	15.10		kgs.		
	5. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk (Interior of Tank)	91.56		sq.m.		
	6. Waterproofing Works					
	a. Cementitious Waterproofing (Interior of Tank)	91.56		sq.m.		
	b. Rubber Waterstop Dumbbell Type, 6" x 1/4"	27.00		l.m.		
	Sub-Total of VII.B					
	Total of VII					
VIII.	INTENSIVE HATCHERY					
A.	SITEWORKS					
	1. Excavation (Common Soil)	29.20		cu.m.		
	2. Backfill and Compaction	25.10		cu.m.		
	3. Soil Treatment	58.50		sq.m.		
	4. Backfill Materials	49.50		cu.m.		
	5. Gravel Bedding, 50mm thk	2.90		cu.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	Sub-Total of VIII.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Column Footing, Grade Beam, Slab on Grade, Column, Roof Beam and Roof Slab (21 MPa)	28.77		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Column Footing, Grade Beam, Slab on Grade, Column, Roof Beam and Roof Slab	2,984.12		kgs.		
	3. Formworks and Scaffoldings					
	a. Column Footing, Grade Beam, Column, Roof Beam and Roof Slab	226.75		sq.m.		
	4. Concrete Hollow Blocks					
	a. 100mm thk CHB, 350 psi. (include mortar and rebars)	16.63		sq.m.		
	b. 150mm thk CHB, 350 psi. (include mortar and rebars)	82.22		sq.m.		
	5. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk (Interior)	144.02		sq.m.		
	b. Plain Cement Plaster Finish, 12mm thk (Exterior)	204.90		sq.m.		
	c. Concrete Topping, 50mm thk	129.44		sq.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	d. Epoxy Paint Finish	45.40		sq.m.		
	6. Waterproofing Works					
	a. Cementitious Waterproofing (Roof Slab)	100.67		sq.m.		
	7. Painting Works					
	a. Interior Wall, Column, Beam and Slab Soffit	144.02		sq.m.		
	b. Exterior Wall, Column, Beam, Soffit and Parapet Wall	204.90		sq.m.		
	8. Supply and Installation of Doors					
	a. D1 - Single Swing Glass Door with 12mm thk Clear Tempered Glass on Powder Coated Aluminum Frame, with Stainless Steel Push Bar (900mmW x 2100mmH)	2.00		sets		
	9. Supply and Installation of Windows					
	a. W1 - Awning Window with 6mm thk Reflective Tempered Glass on Powder Coated Aluminum Frame (1200mmW x 900mmH)	8.00		sets		
	Sub-Total of VIII.B					
	Total of VIII					
IX.	GENERATOR HOUSE					
A.	SITEWORKS					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	1. Excavation (Common Soil)	21.00		cu.m.		
	2. Backfill and Compaction	18.10		cu.m.		
	3. Soil Treatment	20.80		sq.m.		
	4. Backfill Materials	4.30		cu.m.		
	5. Gravel Bedding, 50mm thk	1.00		cu.m.		
	Sub-Total of IX.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Column Footing, Grade Beam, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab (21 MPa)	12.65		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Column Footing, Grade Beam, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab	1,615.71		kgs.		
	3. Formworks and Scaffoldings					
	a. Column Footing, Grade Beam, Column, Roof Beam and Roof Slab	107.69		sq.m.		
	4. Concrete Hollow Blocks					
	a. 100mm thk CHB, 350 psi. (include mortar and rebars)	10.65		sq.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	b. 150mm thk CHB, 350 psi. (include mortar and rebars)	27.37		sq.m.		
	5. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk (Interior)	50.16		sq.m.		
	b. Plain Cement Plaster Finish, 12mm thk (Exterior)	89.16		sq.m.		
	c. Concrete Topping, 50mm thk	42.13		sq.m.		
	d. Epoxy Paint Finish	11.23		sq.m.		
	6. Waterproofing Works					
	a. Cementitious Waterproofing (Roof Slab)	40.23		sq.m.		
	7. Painting Works					
	a. Interior Wall, Column, Beam and Slab Soffit	50.16		sq.m.		
	b. Exterior Wall, Column, Beam, Soffit and Parapet Wall	89.16		sq.m.		
	8. Supply and Installation of Doors					
	a. D1 - Double Swing Steel Louver Door, with Door Jamb and Complete Accessories (Painted) (1800mmW x 2100mmH)	1.00		set		
	9. Supply and Installation of Windows					
	a. W1 - Decorative Louver Block (1600mmW x 800mmH)	2.00		sets		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost	
					Value Added Tax & Mark Ups	
	Sub-Total of IX.B					
	Total of IX					
X.	BLOWER AND PUMP HOUSE					
A.	SITEWORKS					
	1. Excavation (Common Soil)	23.30		cu.m.		
	2. Backfill and Compaction	21.90		cu.m.		
	3. Soil Treatment	25.50		sq.m.		
	4. Backfill Materials	10.00		cu.m.		
	5. Gravel Bedding, 50mm thk	1.30		cu.m.		
	Sub-Total of X.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Column Footing, Grade Beam, Wall Footing, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab (21 MPa)	15.08		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Column Footing, Grade Beam, Wall Footing, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab	1,824.89		kgs.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost	
					Value Added Tax & Mark Ups	
	3. Formworks and Scaffoldings					
	a. Column Footing, Grade Beam, Wall Footing, Column, Roof Beam and Roof Slab	122.56		sq.m.		
	4. Concrete Hollow Blocks					
	a. 100mm thk CHB, 350 psi. (include mortar and rebars)	21.85		sq.m.		
	b. 150mm thk CHB, 350 psi. (include mortar and rebars)	33.31		sq.m.		
	5. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk (Interior)	79.49		sq.m.		
	b. Plain Cement Plaster Finish, 12mm thk (Exterior)	106.26		sq.m.		
	c. Concrete Topping, 50mm thk	49.52		sq.m.		
	d. Epoxy Paint Finish	13.62		sq.m.		
	6. Waterproofing Works					
	a. Cementitious Waterproofing (Roof Slab)	46.11		sq.m.		
	7. Painting Works					
	a. Interior Wall, Column, Beam and Slab Soffit	79.49		sq.m.		
	b. Exterior Wall, Column, Beam, Soffit and Parapet Wall	106.26		sq.m.		
	8. Supply and Installation of Doors					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. D1 - Single Swing Steel Louver Door, with Door Jamb and Complete Accessories (Painted) (900mmW x 2100mmH)	2.00		sets		
	9. Supply and Installation of Windows					
	a. W1 - Decorative Louver Block (1600mmW x 800mmH)	2.00		sets		
	Sub-Total of X.B					
	Total of X					
XI.	PUMP HOUSE WITH CISTERN TANK					
A.	SITEWORKS					
	1. Excavation (Common Soil)	55.60		cu.m.		
	2. Backfill and Compaction	15.90		cu.m.		
	3. Soil Treatment	14.90		sq.m.		
	4. Backfill Materials	0.80		cu.m.		
	5. Gravel Bedding, 75mm thk	1.10		cu.m.		
	Sub-Total of XI.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost	
					Value Added Tax & Mark Ups	
	a. Footing, Shearwall, Grade Beam, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab (21 MPa)	20.11		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Footing, Shearwall, Grade Beam, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab	2,293.66		kgs.		
	3. Formworks and Scaffoldings					
	a. Footing, Shearwall, Grade Beam, Column, Roof Beam and Roof Slab	153.91		sq.m.		
	4. Steel Works					
	a. Ladder Rung (Stainless Steel)	8.17		kgs.		
	4. Concrete Hollow Blocks					
	a. 100mm thk CHB, 350 psi. (include mortar and rebars)	7.17		sq.m.		
	b. 150mm thk CHB, 350 psi. (include mortar and rebars)	34.10		sq.m.		
	5. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk (Interior)	125.31		sq.m.		
	b. Plain Cement Plaster Finish, 12mm thk (Exterior)	65.78		sq.m.		
	c. Epoxy Paint Finish	11.44		sq.m.		
	6. Waterproofing Works					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Cementitious Waterproofing (Interior of Tank and Roof Slab)	83.51		sq.m.		
	7. Painting Works					
	a. Interior Wall, Column, Beam and Slab Soffit	47.85		sq.m.		
	b. Exterior Wall, Column, Beam and Parapet Wall	65.78		sq.m.		
	8. Supply and Installation of Doors					
	a. D1 - Double Swing Steel Louver Door, with Door Jamb and Complete Accessories (Painted) (1800mmW x 2100mmH)	1.00		set		
	9. Supply and Installation of Windows					
	a. W1 - Decorative Louver Block (1600mmW x 800mmH)	2.00		sets		
	Sub-Total of XI.B					
	Total of XI					
XII.	GUARD HOUSE					
A.	SITEWORKS					
	1. Excavation (Common Soil)	27.50		cu.m.		
	2. Backfill and Compaction	23.70		cu.m.		
	3. Soil Treatment	22.40		sq.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	4. Backfill Materials	1.10		cu.m.		
	5. Gravel Bedding, 50mm thk	1.10		cu.m.		
	Sub-Total of XII.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Column Footing, Wall Footing, Slab on Grade, Column, Roof Beam and Roof Slab, including Carcass for Countertop (21 MPa)	8.54		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Column Footing, Wall Footing, Slab on Grade, Column, Roof Beam and Roof Slab, including Carcass for Countertop	997.21		kgs.		
	3. Formworks and Scaffoldings					
	a. Column Footing, Wall Footing, Column, Roof Beam and Roof Slab, including Carcass for Countertop	83.68		sq.m.		
	4. Concrete Hollow Blocks					
	a. 100mm thk CHB, 350 psi. (include mortar and rebars)	18.55		sq.m.		
	b. 150mm thk CHB, 350 psi. (include mortar and rebars)	31.55		sq.m.		
	5. Concrete Finishes					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Plain Cement Plaster Finish, 12mm thk (Interior)	45.90		sq.m.		
	b. Plain Cement Plaster Finish, 12mm thk (Exterior)	67.18		sq.m.		
	c. Concrete Topping, 50mm thk	27.98		sq.m.		
	d. Epoxy Paint Finish	8.64		sq.m.		
	6. Tileworks					
	a. Ceramic Floor Tiles, 300mm x 300mm (for Toilet, including countertop)	5.91		sq.m.		
	b. Ceramic Wall Tiles, 300mm x 300mm (for Toilet: Full Height)	15.10		sq.m.		
	7. Ceiling Works					
	a. Gypsum Board Ceiling, 6mm thk	10.76		sq.m.		
	8. Waterproofing Works					
	a. Cementitious Waterproofing (Roof Slab)	24.53		sq.m.		
	9. Painting Works					
	a. Interior Wall/Column	45.90		sq.m.		
	b. Exterior Wall, Column, Beam, Soffit and Parapet Wall	67.18		sq.m.		
	c. Gypsum Board Ceiling	10.76		sq.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	10. Supply and Installation of Doors					
	a. D1 - Single Swing Wooden Panel Door with Door Jamb and Complete Accessories (900mmW x 2100mmH)	1.00		set		
	b. D2 - Single Swing PVC Door with Door Jamb and Complete Accessories (700mmW x 2100mmH)	1.00		set		
	11. Supply and Installation of Windows					
	a. W1 - Sliding Window with 6mm thk Reflective Tempered Glass on Powder Coated Aluminum Frame (1200mmW x 1200mmH)	1.00		set		
	b. W2 - Sliding Window with 6mm thk Reflective Tempered Glass on Powder Coated Aluminum Frame (1000mmW x 1200mmH)	2.00		sets		
	c. W3 - Awning Window with 6mm thk Reflective Tempered Glass on Powder Coated Aluminum Frame (600mmW x 500mmH)	1.00		set		
	Sub-Total of XII.B					
	Total of XII					
XIII.	ELEVATED WATER TANK					
A.	SITEWORKS					
	1. Excavation (Common Soil)	9.90		cu.m.		
	2. Backfill and Compaction	9.20		cu.m.		
	Sub-Total of XIII.A					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Footing and Pedestal	1.68		cu.m.		
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Footing and Pedestal	153.53		kgs.		
	3. Formworks					
	a. Footing and Pedestal	8.62		sq.m.		
	4. Steel Works					
	a. Framing and Railing	1.00		l.s.		
	5. Supply and Installation of Stainless Steel Cylindrical Water Storage Tank (Vertical)					
	a. Stainless Steel Cylindrical Water Storage Tank (Vertical)	1.00		l.s.		
	6. Supply and Installation of PPR Pipe from Elevated Water Tank to Guard House					
	a. PPR Pipe, 1"ø x 4m (PN10)	1.00		l.s.		
	Sub-Total of XIII.B					
	Total of XIII					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
XIV.	PLUMBING WORKS					
A.	GUARD HOUSE					
	1. Sanitary Line					
	a. PVC Pipes and Fittings	1.00		l.s.		
	2. Water Line					
	a. PPR Pipes and Fittings	1.00		l.s.		
	3. Fixtures and Accessories					
	a. Water Closet with Complete Accessories	1.00		set		
	b. Lavatory with Complete Accessories	1.00		set		
	c. Bidet with Complete Accessories	1.00		set		
	d. Kitchen Sink with Complete Accessories	1.00		set		
	Sub-Total of XIV.A					
B.	FILTER TANK SYSTEM OF RESERVOIR					
	1. Blue Pipes and Fittings	1.00		l.s.		
	Sub-Total of XIV.B					
C.	INTENSIVE HATCHERY					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	1. Drain Line					
	a. Blue Pipes and Fittings	1.00		l.s.		
	2. Supply Line					
	a. Blue Pipes and Fittings	1.00		l.s.		
	3. Aeration					
	a. Blue Pipes and Fittings	1.00		l.s.		
	4. Fixture and Pump					
	a. Fiber Glass Jar with Stainless Holder	16.00		sets		
	b. Submersible Pump, 1Hp	1.00		unit		
	c. IBC tank 1000 liters w/ galvanized steel cover and Steel Stand	2.00		sets		
	d. Stainless Steel Tank with Platform(Fry and Rearing Trough)	8.00		sets		
	Sub-Total of XIV.C					
D.	DRAINAGE LINES FOR RECTANGULAR TANK, CIRCULAR TANK, SUMP PIT AND RESERVOIR					
	1. PVC Pipes and Fittings	1.00		l.s.		
	2. Pumps					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	a. Sewage Pump (2HP) - 400-500 Liter/min. (From Sump Pit)	2.00		sets		
	Sub-Total of XIV.D					
E.	WATER SUPPLY SYSTEM OF RECTANGULAR TANK, CIRCULAR TANK, AND INTENSIVE HATCHERY FROM RESERVOIR (SOURCE)					
	1. Blue Pipes and Fittings	1.00		l.s.		
	2. Pumps					
	a. Centrifugal Pump, 1Hp (From Cistern To Elevated Tank)	1.00		unit		
	Sub-Total of XIV.E					
F.	AERATION SYSTEM OF RECTANGULAR TANK, CIRCULAR TANK, AND INTENSIVE HATCHERY					
	1. Blue Pipes and Fittings	1.00		l.s.		
	2. Pumps					
	a. Roots Blower, 3Hp	3.00		units		
	Sub-Total of XIV.F					
G.	SEPTIC TANK (GUARD HOUSE)					
	1. Siteworks					
	a. Excavation (Common Soil)	7.60		cu.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	b. Gravel Bedding, 50mm thk	0.30		cu.m.		
	2. Civil And Architectural Works					
	a. Concrete Works					
	a.1 Footing and Slab (21 MPa)	1.30		cu.m.		
	b. Reinforcing Steel Bars (including Tiewire)					
	b.1 Footing and Slab	61.05		kgs.		
	c. Formworks					
	c.1 Footing and Top Slab	4.13		sq.m.		
	d. Concrete Hollow Blocks with Plain Cement Plaster Finish					
	d.1 150mm thk CHB, 350 psi. (include mortar and rebars)	13.59		sq.m.		
	e. Waterproofing Works					
	e.1 Cementitious Waterproofing (Interior of Septic Tank)	13.62		sq.m.		
	Sub-Total of XIV.G					
H.	FILTER TANK (INTENSIVE HATCHERY)					
	1. Drain Line					
	a. PVC Pipes and Fittings	1.00		l.s.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	Sub-Total of XIV.H					
	Total of XIV					
XV.	ELECTRICAL WORKS					
A.	Conductors and Cables; Raceways, Conduits and Boxes; Wiring Devices and Receptacles; Lighting Luminaires; Panelboards & Circuit Breakers; Generator SetConcrete Works and Solar Light Post; Steel Works and Siteworks	1.00		l.s.		
	Total of XV					
XVI.	RETAINING WALL, PERIMETER FENCE AND GATE					
A.	SITEWORKS					
	1. Excavation (Common Soil)	933.10		cu.m.		
	2. Backfill and Compaction	726.60		cu.m.		
	3. Gravel Bedding, 50mm thk	18.60		cu.m.		
	Sub-Total of XVI.A					
B.	CIVIL AND ARCHITECTURAL WORKS					
	1. Concrete Works					
	a. Retaining Wall, Column Footing, Wall Footing, Column and Lintel Beam (21 Mpa)	255.03		cu.m.		

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost Value Added Tax & Mark Ups	
	2. Reinforcing Steel Bars (including Tiewire)					
	a. Retaining Wall, Column Footing, Wall Footing, Column and Lintel Beam	16,150.10		kgs.		
	3. Formworks and Scaffoldings					
	a. Retaining Wall, Column Footing, Wall Footing, Column and Lintel Beam	1,604.74		sq.m.		
	4. Concrete Hollow Blocks					
	a. 150mm thk CHB, 350 psi. (include mortar and rebars)	252.63		sq.m.		
	5. Concrete Finishes					
	a. Plain Cement Plaster Finish, 12mm thk (Retaining Wall, CHB Wall including Column and Lintel Beam)	518.21		sq.m.		
	6. Steel Works					
	a. Cyclone Wire on G.I. Pipe	1.00		l.s.		
	b. Gate (6000mmW x 1900mmH - 1 set; 1500mmW x 1900mmH)	1.00		l.s.		
	7. Painting Works					
	a. Retaining Wall, CHB Wall including Column and Lintel Beam	518.21		sq.m.		
	Sub-Total of XVI.B					

Item No.	Item Description	BFAR Quantity	Bidders Quantity	Unit	Unit Cost	Total Cost
					Estimated Direct Cost	
					Value Added Tax & Mark Ups	
	Total of XVI					
	Total Cost					

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATIC

I. GENERAL ITEMS

Item of Work:

A. Mobilization/Demobilization

Item No./Description:

Unit of Measurement:

L.S.

Quantity:

1.00

L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor N/A				
	Sub-Total for A			Php	-
Name and Capacity		Quantity	Unit	Unit Cost	Amount
B.	Equipment				
	a. 4 Low Bed Trailer with Tractor Head				-
	b. 2 Elf				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
I. GENERAL ITEMS

Item of Work: B. Provision of Resident Engineer's Office (including provision of office equipment, furnitures and communication expenses)

Item No./Description:

Unit of Measurement: L.S.

Quantity: 1.00 L.S.

Designation		Quantity	Unit	Unit Cost	Amount
A.	Labor				
	a. 30% of Concrete Pedestal and Stair	1.00	lot		-
	Sub-Total for A			Php	-
Name and Capacity		Quantity	Unit	Unit Cost	Amount
B.	Equipment				
	a. Electric and Water Expenses	12	months		-
	b. Communication Expenses	12	months		-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Container Van Office with CR, 20 footer (including delivery)	1.00	unit		-
	b. Clerical Table	3.00	pcs.		-
	c. Clerical Chair	3.00	pcs.		-
	d. Monoblock Chair	6.00	pcs.		-
	e. Electric Fan	1.00	pc.		-
	f. Laptop (ROG)	2.00	units		-
	g. ACU, 1Hp	1.00	unit		-
	h. Portable Metal Drum Septic Tank (including excavation/installation)	1.00	unit		-
	i. Tarpaulin Signboard (include wooden frame)	1.00	l.s.		-
	Concrete Pedestal and Stair				
	j. Concrete, 21 Mpa	1.20	cu.m.		-
	k. Rebars	87.00	kgs.		-
	l. Formworks, Tie Wire, CWN, etc.	1.00	lot		-
	m. Steel Stair	1.00	lot		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATIC**
I. GENERAL ITEMS

Item of Work: C. Construction Safety
 Item No./Description:
 Unit of Measurement: L.S.
 Quantity: 1.00 L.S.

Designation		Quantity	Unit	Unit Cost	Amount
A.	Labor				
	a. 1 Safety Officer	365	days		-
	b. 1 First Aider	365	days		-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Safety Shoes	15.00	pair		-
	b. Safety Helmet/Hard Hat (Free Size)	15.00	pcs.		-
	c. Rubber Boots (Free Size)	15.00	pcs.		-
	d. Rain Coats	15.00	pcs.		-
	e. Safety Dust Mask	15.00	pcs.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
I. GENERAL ITEMS

Item of Work: D. Supply of Labor and Materials for the Construction of 8" dia. X 600ft. Deepwell using "Rotary" Drilling Equipment, including Geo Resistivity Survey

Item No./Description:

Unit of Measurement: L.S.

Quantity: 1.00 L.S.

Designation		Quantity	Unit	Unit Cost	Amount
A.	Labor	1	lot		-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Casing Materials				
	a. 12" dia x 20ft. B.I. Pipe, Sch. 40	2.00	pcs.		-
	b. 8" dia x 20ft. B.I. Pipe, Sch. 40	20.00	pcs.		-
	c. 8" dia x 10ft. Stainless Steel Well Screens	20.00	pcs.		-
	d. Gravel Fill Pipe, 2" x 200ft. With Screw Cap.	1.00	lot		-
	e. Gravel Packing Materials (Pebbles)	1.00	lot		-
	Deepwell Pump and Accessories				
	f. All Stainless Steel Submersible Pump coupled to Submersible Motor 20Hp/3Hp/230V/3450rpm/60Hz rated to deliver 150 gpm against 400' TDH including controller, 3" G.I. Sch. 40 riser pipes, submersible cable, check valve, cable ties, sounding line, suspension wires, etc. for 400ft setting, with Phase Inverter	1.00	lot		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))				-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATIC

I. GENERAL ITEMS

Item of Work:

E. Budgetary Amount for Permits and Clearances

Item No./Description:

Unit of Measurement:

L.S.

Quantity:

1.00

L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor N/A				
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Permits and Clearances	1.00	lot		0.00
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))				-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
II. SITE DEVELOPMENT

Item of Work: A. Clearing and Grubbing
 Item No./Description:
 Unit of Measurement: SQ.M.
 Quantity: 10,000.00 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Dump Truck b. Payloader c. Bulldozer				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
II. SITE DEVELOPMENT

Item of Work: B. Removal of Trees
 Item No./Description:
 Unit of Measurement: L.S.
 Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer (Clearing of Trees up to 300mm Dia. and Cutting of Uneven Terrain)				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Backhoe b. Dump Truck c. Chainsaw d.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
II. SITE DEVELOPMENT

Item of Work: C. Excavation
 Item No./Description:
 Unit of Measurement: CU.M.
 Quantity: 2,108.56 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Dump Truck (12 yd³) b. Backhoe (0.80 m³/1.04 yd³) c. Payloader (3.00 m³) d.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
II. SITE DEVELOPMENT

Item of Work: D. Gravel Bedding, 50mm thk (Base Coarse)
 Item No./Description:
 Unit of Measurement: CU.M.
 Quantity: 219.50 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Unskilled Worker				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Plate Compactor b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Gravel Bedding G-1 (50mm thickness) (w/ 5% Shrinkage Factor)	219.50	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
II. SITE DEVELOPMENT

Item of Work: E. Hauling and Disposal
 Item No./Description:
 Unit of Measurement: LOT
 Quantity: 1.00 LOT

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Backhoe b. Dump Truck c.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
II. SITE DEVELOPMENT

Item of Work: F. Concrete Manhole (Manhole 1, 2, 3, 4, 5, & 6)
Item No./Description:
Unit of Measurement: L.S.
Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Welding Machine				-
	b. Bar Cutter				-
	c.				-
	Sub-Total for B			Php	-
C.	Total (A+B)				Php
D.	Labor and Equipment Unit Cost (C ÷ Qty)				Php
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Concrete Works, Class B Mixture				
	a. Portland Cement, 40kg	23.00	bags		-
	b. Sand, Washed	1.30	cu.m.		-
	c. Crushed Gravel, 3/4"	2.20	cu.m.		-
	Reinforcing Steel Bars (including Tiewire)				
	d. 12mmø x 6.0m Def Bar, Grade 40	53.00	pcs.		-
	e. 10mmø x 6.0m Def Bar, Grade 40	60.00	pcs.		-
	f. G.A. #16 G.I. Tiewire	3.00	kgs		-
	Concrete Hollow Blocks with Plain Cement Plaster Finish (100mm thk CHB, 350 psi. (include mortar and rebars))				
	g. CHB, 4" thk	1,099.00	pcs.		-
	h. Cement, 40kg	59.00	bags		-
	i. Sand, Washed	4.90	cu.m.		-
	j. 10mmø x 6.0m Def Bar, Grade 40	63.00	pcs.		-
	k. G.A. #16 G.I. Tiewire	2.80	kgs.		-
	Steel Grating				
	l. Angle Bar, 38mm x 38mm x 3mm thk x 6m	15.00	pcs.		-
	m. Flat Bar, 50mm x 5mm thk x 6m	115.00	pcs.		-
	n. Welding Rod	40.00	kgs.		-
	o. Rust Converter, 4L/gal	1.00	gal		-
	p. Red Oxide Metal Primer , 4L/gal	2.00	gals		-
	q. Paint Thinner, 4L/gal	1.00	gal		-
	r. Paint Brush, 2"	2.00	pcs.		-
	s. Paint Brush, 4"	2.00	pcs.		-
	t. Steel Brush	2.00	pcs.		-
	u. Consumable (5% of Materials Cost)				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)				Php
G.	Estimated Direct Cost (D+F)				Php
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))				-
K.	Total Cost of Work Item				Php
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
II. SITE DEVELOPMENT

Item of Work: G. Area Drain Manhole
 Item No./Description:
 Unit of Measurement: L.S.
 Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
Sub-Total for A				Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Welding Machine				-
	b. Bar Cutter				-
	c.				-
Sub-Total for B				Php	-
Total (A+B)				Php	-
Labor and Equipment Unit Cost (C ÷ Qty)				Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Concrete Works, Class B Mixture				
	a. Portland Cement, 40kg	6.00	bags		-
	b. Sand, Washed	2.80	cu.m.		-
	c. Crushed Gravel, 3/4"	5.50	cu.m.		-
	Reinforcing Steel Bars (including Tiewire)				
	d. 12mmø x 6.0m Def Bar, Grade 40	33.00	pcs.		-
	e. G.A. #16 G.I. Tiewire	5.00	kgs.		-
	Concrete Hollow Blocks with Plain Cement Plaster Finish (100mm thk CHB, 350 psi. (include mortar and rebars))				
	f. CHB, 6" thk	399.00	pcs.		-
	g. Cement, 40kg	51.00	bags		-
	h. Sand, Washed	3.70	cu.m.		-
	i. 10mmø x 6.0m Def Bar, Grade 40	23.00	pcs.		-
	j. G.A. #16 G.I. Tiewire	1.00	kg.		-
	Steel Grating				
	k. Angle Bar, 38mm x 38mm x 3mm thk x 6m	4.00	pcs.		-
	l. Flat Bar, 50mm x 5mm thk x 6m	35.00	pcs.		-
	m. Welding Rod	7.00	kgs.		-
	n. Rust Converter, 4L/gal	1.00	gal		-
	o. Red Oxide Metal Primer , 4L/gal	1.00	gal		-
	p. Paint Thinner, 4L/gal	1.00	gal		-
	q. Paint Brush, 2"	2.00	pcs.		-
	r. Paint Brush, 4"	2.00	pcs.		-
	s. Steel Brush	2.00	pcs.		-
	t. Consumable (5% of Materials Cost)				-
	Supply and Installation of Reinforced Concrete Pipe				
	u. RCP, 450mmø	80.00	pcs.		-
	v. Cement, 40kg	12.00	bags		-
	w. Sand, Washed	0.50	cu.m.		-
Sub-Total for E				Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
Plus:					
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
III. RESERVOIR TANK AND FILTER TANK

Item of Work: A. SITEWORKS
Item No./Description: 1. Excavation (Common Soil)
Unit of Measurement: CU.M.
Quantity: 162.10 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Dump Truck (12 yd³) b. Backhoe (0.80 m³/1.04 yd³) c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION III. RESERVOIR TANK AND FILTER TANK

Item of Work: A. SITEWORKS
Item No./Description: 2. Backfill and Compaction
Unit of Measurement: CU.M.
Quantity: 126.60 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Plate Compactor(5 hp) b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
III. RESERVOIR TANK AND FILTER TANK

Item of Work: A. SITEWORKS
 Item No./Description: 3. Soil Treatment
 Unit of Measurement: SQ.M.
 Quantity: 187.20 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Soil Treatment	12	gallons		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
III. RESERVOIR TANK AND FILTER TANK

Item of Work: A. SITEWORKS
 Item No./Description: 4. Backfill Materials
 Unit of Measurement: CU.M.
 Quantity: 181.90 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Tandem Roller b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Backfill Materials (w/ 25% shrinkage factor)	181.90	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
III. RESERVOIR TANK AND FILTER TANK

Item of Work: A. SITEWORKS
 Item No./Description: 5. Gravel Bedding, 50mm thk
 Unit of Measurement: CU.M.
 Quantity: 9.40 CU.M.

Designation		No. Person	No. of Hours	Hourly Rate	Amount
A.	Labor a. Unskilled Worker				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Hours	Hourly Rate	Amount
B.	Equipment a. Plate Compactor b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Gravel Bedding, G-1 (w/ 5% Shrinkage Factor)	9.40	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
III. RESERVOIR TANK AND FILTER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 1. Concrete Works, 30MPa
 a. Footings, Beams, Columns, Shearwall, Suspended Slab, Slab on Grade and Stair
 Unit of Measurement: CU.M.
 Quantity: 116.25 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Boom Type Pumpcrete				-
	b. Concrete Vibrator				-
	c.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Ready Mix Concrete, 4000psi				
	a. Footings	27.73	cu.m.		-
	b. Beams	5.57	cu.m.		-
	c. Columns	2.90	cu.m.		-
	d. Shearwall, SW-1	56.27	cu.m.		-
	e. Suspended Slab	3.13	cu.m.		-
	f. Slab on Grade	18.95	cu.m.		-
	g. Stair	1.70	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

III. RESERVOIR TANK AND FILTER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 2. Reinforcing Steel Bars (including Tiewire)
a. Footings, Beams, Columns, Shearwall, Suspended Slab, Slab on Grade and Stair
Unit of Measurement: KGS.
Quantity: 17,587.08 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Bar Cutter				-
	b. Bar Bender				-
	c.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Footings				
	a. 16mmø x 6.0m Def Bar, Grade 60	3,554.81	kgs.		-
	b. G.A. #16 G.I. Tiewire	23.00	kgs.		-
	Beams				
	c. 16mmø x 6.0m Def Bar, Grade 60	928.65	kgs.		-
	d. 10mmø x 6.0m Def Bar, Grade 40	340.21	kgs.		-
	e. G.A. #16 G.I. Tiewire	15.00	kgs.		-
	Columns				
	f. 16mmø x 6.0m Def Bar, Grade 60	516.38	kgs.		-
	g. 10mmø x 6.0m Def Bar, Grade 40	314.85	kgs.		-
	h. G.A. #16 G.I. Tiewire	22.00	kgs.		-
	Shearwall				
	i. 20mmø x 6.0m Def Bar, Grade 60	431.98	kgs.		-
	j. 16mmø x 6.0m Def Bar, Grade 60	6,739.07	kgs.		-
	k. 10mmø x 6.0m Def Bar, Grade 40	3,383.84	kgs.		-
	l. G.A. #16 G.I. Tiewire	124.00	kgs.		-
	Suspended Slab				
	m. 16mmø x 6.0m Def Bar, Grade 60	162.41	kgs.		-
	n. 10mmø x 6.0m Def Bar, Grade 40	99.44	kgs.		-
	o. G.A. #16 G.I. Tiewire	4.00	kgs.		-
	Slab on Grade				
	p. 10mmø x 6.0m Def Bar, Grade 40	790.82	kgs.		-
	q. G.A. #16 G.I. Tiewire	24.00	kgs.		-
	Stair				
	r. 16mmø x 6.0m Def Bar, Grade 60	143.39	kgs.		-
	s. 12mmø x 6.0m Def Bar, Grade 40	62.64	kgs.		-
	t. 10mmø x 6.0m Def Bar, Grade 40	118.59	kgs.		-
	u. G.A. #16 G.I. Tiewire	5.00	kgs.		-
	v. Consumables (5% of Materials Cost)				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
III. RESERVOIR TANK AND FILTER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 3. Formworks and Scaffoldings
a. Footings, Beams, Columns, Shearwall, Suspended Slab and Stair
Unit of Measurement: SQ.M.
Quantity: 738.72 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	Installation:				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Stripping:				
	a. Construction Foreman/Engineering Assistant				-
	b. Laborer				-
Sub-Total for A				Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a.				-
Sub-Total for B				Php	-
C.	Total (A+B)				Php
D.	Labor and Equipment Unit Cost (C ÷ Qty)				Php
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Footings				
	a. Phenolic Board , 3/4" x 4' x 8' (2 uses)	7.00	pcs.		-
	b. Rough Lumber, 2" x 3" x 12' (2 uses)	258.00	bd.ft.		-
	c. Assorted Common Wire Nails	15.00	kgs.		-
	Beams				
	d. Phenolic Board , 3/4" x 4' x 8' (2 uses)	9.00	pcs.		-
	e. Rough Lumber, 2" x 3" x 12' (2 uses)	452.00	bd.ft.		-
	f. Assorted Common Wire Nails	27.00	kgs.		-
	Columns				
	g. Phenolic Board , 3/4" x 4' x 8' (2 uses)	9.00	pcs.		-
	h. Rough Lumber, 2" x 3" x 12' (2 uses)	1,139.00	bd.ft.		-
	i. Assorted Common Wire Nails	68.00	kgs.		-
	Shearwall				
	j. Phenolic Board , 3/4" x 4' x 8' (2 uses)	98.00	pcs.		-
	k. Rough Lumber, 2" x 3" x 12' (2 uses)	1,868.00	bd.ft.		-
	l. Assorted Common Wire Nails	224.00	kgs.		-
	Suspended Slab				
	m. Phenolic Board , 3/4" x 4' x 8' (2 uses)	8.00	pcs.		-
	n. Rough Lumber, 2" x 3" x 12' (2 uses)	202.19	bd.ft.		-
	o. Assorted Common Wire Nails	7.00	kgs.		-
	Stair				
	p. Phenolic Board , 3/4" x 4' x 8' (2 uses)	6.00	pcs.		-
	q. Rough Lumber, 2" x 3" x 12' (2 uses)	39.30	bd.ft.		-
	r. Assorted Common Wire Nails	3.00	kgs.		-
	s. Consumables (5% of Materials Cost)				-
Sub-Total for E				Php	-
F.	Material Unit Cost (E ÷ Qty)				Php
G.	Estimated Direct Cost (D+F)				Php
Plus:					
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item				Php
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
III. RESERVOIR TANK AND FILTER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Steel Works
a. Steel Railing
Unit of Measurement: KGS.
Quantity: 556.74 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	Fabrication:				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Erection:				
	a. Skilled Laborer				-
	b. Laborer				-
Sub-Total for A				Php	0.00
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Welding Machine				-
	b. Cutting Outfit				-
	c.				-
Sub-Total for B				Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Tubular Bar, 50mm x 50mm x 1.5mm thk x 6m	359.54	kgs.		-
	b. Tubular Bar, 50mm x 100mm x 1.5mm thk x 6m	197.20	kgs.		-
	c. Welding Rod	13.00	kgs.		-
	d. Consumables (5% of Materials Cost)				-
Sub-Total for E				Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
III. RESERVOIR TANK AND FILTER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Steel Works
b. Stainless Steel Ladder
Unit of Measurement: KGS.
Quantity: 3.36 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Welding Machine b. Bar Cutter c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Stainless Steel Round Bar, 12mmø x 6.0m b. Consumables (5% of Materials Cost)	3.36	kgs.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
III. RESERVOIR TANK AND FILTER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
a. Plain Cement Plaster Finish, 12mm thk
(Interior and Exterior of Tank, Column, Beam, Soffit and Stair)
Unit of Measurement: SQ.M.
Quantity: 641.10 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand, Fine	92.00 7.70	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
III. RESERVOIR TANK AND FILTER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
b. Concrete Topping, 50mm thk
Unit of Measurement: SQ.M.
Quantity: 146.41 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand	88.00 6.50	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
III. RESERVOIR TANK AND FILTER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
c. Epoxy Paint Finish (Stair and Cantilever Slab)
Unit of Measurement: SQ.M.
Quantity: 58.17 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Worker c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Epoxy Primer, 4L/gal b. Acrylic Water-Based Epoxy Paint (2 coats), 4L/gal c. Epoxy Reducer, 4L/gal d. Consumables (5% of Materials Cost)	3.00 5.00 1.00	gals gals gal		- - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
III. RESERVOIR TANK AND FILTER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 6. Waterproofing Works
a. Cementitious Waterproofing (Interior of Tank)
Unit of Measurement: SQ.M.
Quantity: 271.24 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Worker c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cementitious Waterproofing (2 Coats), 4L/gal b. Consumable (5% of Materials Cost)	102.00	gals		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
III. RESERVOIR TANK AND FILTER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 7. Painting Works
a. Exterior Wall of Tank, Beams, Columns, Stair Soffit, and Cantilever Slab Soffit
Unit of Measurement: SQ.M.
Quantity: 369.86 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Worker				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Acrytex Primer, 4L/gal	15.00	gals		-
	b. Acrytex Putty, 4L/gal	31.00	gals		-
	c. Acrytex Reducer, 4L/gal	11.00	gals		-
	d. Acrytex Topcoat Paint (2 Coats), 4L/gal	30.00	gals		-
	e. Paint tray w/ Roller brush	15.00	pcs.		-
	f. Paint Brush, 2"	10.00	pcs.		-
	g. Paint Brush, 4"	10.00	pcs.		-
	h. Other Consumables				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
III. RESERVOIR TANK AND FILTER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 7. Painting Works
b. Interior of Tank
Unit of Measurement: SQ.M.
Quantity: 271.24 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Worker				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Acrytex Paint (2 Coats), 4L/gal	22.00	gals		-
	b. Acrytex Reducer, 4L/gal	6.00	gals		-
	c. Paint tray w/ Roller brush	11.00	pcs.		-
	d. Paint Brush, 2"	8.00	pcs.		-
	e. Paint Brush, 4"	8.00	pcs.		-
	f. Other Consumables				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
III. RESERVOIR TANK AND FILTER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 7. Painting Works
c. Steel Railing
Unit of Measurement: SQ.M.
Quantity: 48.57 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Worker				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Rust Converter, 4L/gal	2.00	gals		-
	b. Red Oxide Metal Primer , 4L/gal	2.00	gals		-
	c. Paint Thinner, 4L/gal	1.00	gal		-
	d. Epoxy Reducer, 4L/gal	1.00	gal		-
	e. Epoxy Enamel Paint (2 coats), 4L/gal	4.00	gals		-
	f. Paint Brush, 2"	5.00	pcs.		-
	g. Paint Brush, 4"	5.00	pcs.		-
	h. Other Consumables				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: A. SITEWORKS
Item No./Description: 1. Excavation (Common Soil)
Unit of Measurement: CU.M.
Quantity: 212.20 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Dump Truck (12 yd³) b. Backhoe (0.80 m³/1.04 yd³) c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

PROJECT NAME:

CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION

IV. RECTANGULAR TANK

Item of Work: A. SITEWORKS

Item No./Description: 2. Backfill and Compaction

Unit of Measurement: CU.M.

Quantity: 155.90 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Plate Compactor(5 hp)				-
	b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: A. SITEWORKS
 Item No./Description: 3. Soil Treatment
 Unit of Measurement: SQ.M.
 Quantity: 661.10 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Soil Treatment	42.00	gallons		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: A. SITEWORKS
Item No./Description: 4. Backfill Materials
Unit of Measurement: CU.M.
Quantity: 356.40 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Tandem Roller b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Backfill Materials (w/ 25% shrinkage factor)	356.40	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: A. SITEWORKS
 Item No./Description: 5. Gravel Bedding, 50mm thk
 Unit of Measurement: CU.M.
 Quantity: 33.10 CU.M.

Designation		No. Person	No. of Hours	Hourly Rate	Amount
A.	Labor a. Unskilled Worker				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Hours	Hours Rate	Amount
B.	Equipment a. Plate Compactor b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Gravel Bedding, G-1 (w/ 5% Shrinkage Factor)	33.10	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 1. Concrete Works
a. Footing, Grade Beam and Shearwall (30 MPa)
Unit of Measurement: CU.M.
Quantity: 68.64 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Boom Type Pumpcrete				-
	b. Concrete Vibrator				-
	c.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Ready Mix Concrete, 4000psi				
	a. Footing	29.74	cu.m.		-
	b. Grade Beam	11.91	cu.m.		-
	c. Shearwall	26.99	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 1. Concrete Works
b. Slab on Grade, 21MPa
Unit of Measurement: CU.M.
Quantity: 111.39 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Boom Type Pumpcrete b. Concrete Vibrator c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Ready Mix Concrete, 3000psi	111.39	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 1. Concrete Works
c. Column, Lintel beam and Stair (21 MPa)
Unit of Measurement: CU.M.
Quantity: 17.38 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. One-Bagger Mixer				-
	b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Column				
	a. Portland Cement, 40kg	23.00	bags		-
	b. Sand, Washed	1.30	cu.m.		-
	c. Crushed Gravel, 3/4"	2.60	cu.m.		-
	Lintel Beam				
	d. Portland Cement, 40kg	90.00	bags		-
	e. Sand, Washed	5.00	cu.m.		-
	f. Crushed Gravel, 3/4"	10.00	cu.m.		-
	Stair				
	g. Portland Cement, 40kg	43.00	bags		-
	h. Sand, Washed	2.40	cu.m.		-
	i. Crushed Gravel, 3/4"	4.80	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 2. Reinforcing Steel Bars (including Tiewire)
 a. Footing, Grade Beam, Shearwall, Lintel Beam, Column, Slab on Grade and Stair
 Unit of Measurement: KGS.
 Quantity: 14,428.07 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Bar Cutter				-
	b. Bar Bender				-
	c.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Footing				
	a. 16mmø x 6.0m Def Bar, Grade 40	2,052.34	kgs.		-
	b. G.A. #16 G.I. Tiewire	14.00	kgs.		-
	Grade Beam				
	c. 16mmø x 6.0m Def Bar, Grade 40	927.93	kgs.		-
	d. 10mmø x 6.0m Def Bar, Grade 40	498.55	kgs.		-
	e. G.A. #16 G.I. Tiewire	17.00	kgs.		-
	Shearwall				
	f. 12mmø x 6.0m Def Bar, Grade 40	1,302.37	kgs.		-
	g. 10mmø x 6.0m Def Bar, Grade 40	558.39	kgs.		-
	h. G.A. #16 G.I. Tiewire	15.00	kgs.		-
	Lintel Beam				
	i. 12mmø x 6.0m Def Bar, Grade 40	1,015.05	kgs.		-
	j. 10mmø x 6.0m Def Bar, Grade 40	859.05	kgs.		-
	k. G.A. #16 G.I. Tiewire	37.00	kgs.		-
	Column				
	l. 12mmø x 6.0m Def Bar, Grade 40	537.06	kgs.		-
	m. 10mmø x 6.0m Def Bar, Grade 40	310.97	kgs.		-
	n. G.A. #16 G.I. Tiewire	19.00	kgs.		-
	Slab on Grade				
	o. 10mmø x 6.0m Def Bar, Grade 40	5,497.55	kgs.		-
	p. G.A. #16 G.I. Tiewire	79.00	kgs.		-
	Stair				
	q. 16mmø x 6.0m Def Bar, Grade 40	477.29	kgs.		-
	r. 10mmø x 6.0m Def Bar, Grade 40	391.52	kgs.		-
	s. G.A. #16 G.I. Tiewire	11.00	kgs.		-
	t. Consumables (5% of Materials Cost)				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 3. Formworks and Scaffoldings
a. Footing, Grade Beam, Shearwall, Lintel Beam, Column and Stair
Unit of Measurement: SQ.M.
Quantity: 731.38 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor Installation: a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer Stripping: a. Construction Foreman/Engineering Assistant b. Laborer				- - - - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Marine Plywood , 1/2" x 4' x 8' (2 uses) b. Rough Lumber, 2" x 3" x 12' (2 uses) c. Assorted Common Wire Nails	130.00 4420.00 132.00	pcs. bd.ft. kgs.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Roofing Works
a. Pedestal
a.1 Concrete, 21 Mpa

Unit of Measurement: CU.M.
Quantity: 1.19 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
Sub-Total for A				Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. One-Bagger Mixer				-
	b.				
Sub-Total for B				Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Portland Cement, 40kg	12.00	bags		-
	b. Sand, Washed	0.60	cu.m.		-
	c. Crushed Gravel, 3/4"	1.20	cu.m.		-
Sub-Total for E				Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Roofing Works
a. Pedestal
a.2 Reinforcing Steel Bars (including Tiewire)
Unit of Measurement: KGS.
Quantity: 609.65 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Bar Cutter				-
	b. Bar Bender				-
	c.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. 16mmø x 6.0m Def Bar, Grade 40	477.49	kgs.		-
	b. 10mmø x 6.0m Def Bar, Grade 40	132.16	kgs.		-
	c. G.A. #16 G.I. Tiewire	8.00	kgs.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Roofing Works
a. Pedestal
a.3 Formworks
Unit of Measurement: SQ.M.
Quantity: 15.88 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor Installation: a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer Stripping: a. Construction Foreman/Engineering Assistant b. Laborer				- - - - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Ordinary Plywood , 1/2" x 4' x 8' (2 uses) b. Rough Lumber, 2" x 3" x 12' (2 uses) c. Assorted Common Wire Nails	3.00 104.00 10.00	pcs. bd.ft. kgs.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Roofing Works
b. Truss and Roofing
b.1 Truss

Unit of Measurement: LOT
Quantity: 1.00 LOT

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	Fabrication:				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Erection and Installation:				
	a. Skilled Laborer				-
	b. Laborer				-
Sub-Total for A				Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Welding Machine				-
	b. Bar Cutter				-
	c.				-
Sub-Total for B				Php	-
Total (A+B)				Php	-
Labor and Equipment Unit Cost (C ÷ Qty)				Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. G.I. Pipe, 25mmø Sched 40 x 6m	166.00	pcs.		-
	b. G.I. Pipe, 50mmø Sched 40 x 6m	158.00	pcs.		-
	c. G.I. Pipe, 100mmø Sched 40 x 6m	17.00	pcs.		-
	d. Anchor Bolt, 12mmø ASTM A36	168.00	pcs.		-
	e. Base Plate, 250mm x 250mm x 8mm thk	42.00	pcs.		-
	f. Welding Rod	297.00	kgs.		-
	g. Rust Converter, 4L/gal	8.00	gals		-
	h. Red Oxide Metal Primer , 4L/gal	11.00	gals		-
	i. Paint Thinner, 4L/gal	4.00	gal		-
	j. Paint Brush, 2"	10.00	pcs.		-
	k. Paint Brush, 4"	10.00	pcs.		-
	l. Steel Brush	10.00	pcs.		-
	m. Consumables (5% of Materials Cost)				-
Sub-Total for E				Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))				-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Roofing Works
b. Truss and Roofing
b.2 Roofing and Accessories
Unit of Measurement: SQ.M.
Quantity: 553.00 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Black Sunshade Net b. Nylon Twine Thread, Black 80g c. Consumables (5% of Materials Cost)	553.00 4.00	sq.m. rolls		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Hollow Blocks
a. 100mm thk CHB, 350 psi. (include mortar and rebars)
Unit of Measurement: SQ.M.
Quantity: 15.12 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One Bagger Mixer b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. CHB, 4" thk b. Portland Cement, 40kg c. Sand, Washed d. 10mmø x 6.0m Def Bar, Grade 40 e. G.A. #16 G.I. Tiewire	189.00 6.00 0.70 39.90 1.00	pcs. bags cu.m. kgs. kg.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Hollow Blocks
b. 150mm thk CHB, 350 psi. (include mortar and rebars)
Unit of Measurement: SQ.M.
Quantity: 267.62 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One Bagger Mixer b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. CHB, 6" thk b. Cement, 40kg c. Sand, Washed d. 10mmø x 6.0m Def Bar, Grade 40 e. G.A. #16 G.I. Tiewire	3,345.00 204.00 22.60 706.16 9.00	pcs. bags cu.m. kgs. kgs.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 6. Concrete Finishes
a. Plain Cement Plaster Finish, 12mm thk
(Interior and Exterior Wall of Tank, including Column and Lintel Beam, Stair)
Unit of Measurement: SQ.M.
Quantity: 813.02 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand, Fine	117.00 9.80	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 6. Concrete Finishes
b. Concrete Topping, 50mm thk
Unit of Measurement: SQ.M.
Quantity: 521.81 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand	313.00 23.20	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 6. Concrete Finishes
c. Epoxy Paint Finish
Unit of Measurement: SQ.M.
Quantity: 337.85 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Epoxy Primer, 4L/gal b. Acrylic Water-Based Epoxy Paint (2 coats), 4L/gal c. Epoxy Reducer, 4L/gal d. Consumables (5% of Materials Cost)	17.00 27.00 5.00	gals gals gal		- - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 7. Waterproofing Works
a. Cementitious Waterproofing (Interior of Tank)
Unit of Measurement: SQ.M.
Quantity: 567.00 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cementitious Waterproofing (2 Coats), 4L/gal b. Consumable (5% of Materials Cost)	213.00	gals		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 8. Painting Works
a. Exterior Wall of Tank, Lintel Beam, Column and Pedestal
Unit of Measurement: SQ.M.
Quantity: 429.98 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Acrytex Primer, 4L/gal b. Acrytex Putty, 4L/gal c. Acrytex Reducer, 4L/gal d. Acrytex Topcoat Paint (2 Coats), 4L/gal e. Paint tray w/ Roller brush f. Paint Brush, 2" g. Paint Brush, 4" h. Other Consumables	17.00 11.00 13.00 34.00 18.00 18.00 18.00	gals gals gals gals pcs. pcs. pcs.		- - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IV. RECTANGULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 8. Painting Works
b. Interior of Tank
Unit of Measurement: SQ.M.
Quantity: 567.00 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Acrytex Paint (2 Coats), 4L/gal b. Acrytex Reducer, 4L/gal c. Paint tray w/ Roller brush d. Paint Brush, 2" e. Paint Brush, 4" f. Other Consumables	45.00 11.00 22.00 22.00 22.00	gals gals pcs. pcs. pcs.		- - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: A. SITEWORKS
Item No./Description: 1. Excavation (Common Soil)
Unit of Measurement: CU.M.
Quantity: 248.20 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Dump Truck (12 yd³) b. Backhoe (0.80 m³/1.04 yd³) c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: A. SITEWORKS
Item No./Description: 2. Backfill and Compaction
Unit of Measurement: CU.M.
Quantity: 184.70 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Plate Compactor(5 hp) b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: A. SITEWORKS
 Item No./Description: 3. Soil Treatment
 Unit of Measurement: SQ.M.
 Quantity: 923.80 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Soil Treatment	59	gallons		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: A. SITEWORKS
 Item No./Description: 4. Backfill Materials
 Unit of Measurement: CU.M.
 Quantity: 533.40 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Tandem Roller b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Backfill Materials (w/ 25% shrinkage factor)	533.40	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: A. SITEWORKS
 Item No./Description: 5. Gravel Bedding, 50mm thk
 Unit of Measurement: CU.M.
 Quantity: 46.20 CU.M.

Designation		No. Person	No. of hours	Hourly Rate	Amount
A.	Labor a. Unskilled Worker				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Hours	Hourly Rate	Amount
B.	Equipment a. Plate Compactor b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Gravel Bedding G-1 (w/ 5% Shrinkage Factor)	46.20	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 1. Concrete Works
a. Footing, Grade Beam and Shearwall (30 MPa)
Unit of Measurement: CU.M.
Quantity: 74.69 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Boom Type Pumpcrete b. Concrete Vibrator c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials Ready Mix Concrete, 4000psi a. Footing b. Grade Beam c. Shearwall	34.15 13.55 26.99	cu.m. cu.m. cu.m.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 1. Concrete Works
b. Slab on Grade, 21MPa
Unit of Measurement: CU.M.
Quantity: 166.17 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Boom Type Pumpcrete b. Concrete Vibrator c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Ready Mix Concrete, 3000psi	166.17	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 1. Concrete Works
 c. Column, Lintel beam and Stair (21 MPa)
 Unit of Measurement: CU.M.
 Quantity: 16.35 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. One-Bagger Mixer				-
	b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Column				
	a. Portland Cement, 40kg	31.00	bags		-
	b. Sand, Washed	1.70	cu.m.		-
	c. Crushed Gravel, 3/4"	3.40	cu.m.		-
	Lintel Beam				
	d. Portland Cement, 40kg	79.00	bags		-
	e. Sand, Washed	4.40	cu.m.		-
	f. Crushed Gravel, 3/4"	8.80	cu.m.		-
	Stair				
	g. Portland Cement, 40kg	38.00	bags		-
	h. Sand, Washed	2.10	cu.m.		-
	i. Crushed Gravel, 3/4"	4.20	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 2. Reinforcing Steel Bars (including Tiewire)
 a. Footing, Grade Beam, Shearwall, Lintel Beam, Column, Slab on Grade and Stair
 Unit of Measurement: KGS.
 Quantity: 17,793.92 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Bar Cutter				-
	b. Bar Bender				-
	c.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Footing				
	a. 16mmø x 6.0m Def Bar, Grade 40	2,387.25	kgs.		-
	b. G.A. #16 G.I. Tiewire	16.00	kgs.		-
	Grade Beam				
	c. 16mmø x 6.0m Def Bar, Grade 40	1,031.52	kgs.		-
	d. 10mmø x 6.0m Def Bar, Grade 40	548.43	kgs.		-
	e. G.A. #16 G.I. Tiewire	18.00	kgs.		-
	Shearwall				
	f. 12mmø x 6.0m Def Bar, Grade 40	1,535.51	kgs.		-
	g. 10mmø x 6.0m Def Bar, Grade 40	660.40	kgs.		-
	h. G.A. #16 G.I. Tiewire	19.00	kgs.		-
	Lintel Beam				
	i. 12mmø x 6.0m Def Bar, Grade 40	836.92	kgs.		-
	j. 10mmø x 6.0m Def Bar, Grade 40	733.50	kgs.		-
	k. G.A. #16 G.I. Tiewire	32.00	kgs.		-
	Column				
	l. 12mmø x 6.0m Def Bar, Grade 40	716.08	kgs.		-
	m. 10mmø x 6.0m Def Bar, Grade 40	412.03	kgs.		-
	n. G.A. #16 G.I. Tiewire	25.00	kgs.		-
	Slab on Grade				
	o. 10mmø x 6.0m Def Bar, Grade 40	8,172.07	kgs.		-
	p. G.A. #16 G.I. Tiewire	118.00	kgs.		-
	Stair				
	q. 16mmø x 6.0m Def Bar, Grade 40	417.63	kgs.		-
	r. 10mmø x 6.0m Def Bar, Grade 40	342.58	kgs.		-
	s. G.A. #16 G.I. Tiewire	9.00	kgs.		-
	t. Consumables (5% of Materials Cost)				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 3. Formworks and Scaffoldings
 a. Footing, Grade Beam, Shearwall, Lintel Beam, Column and Stair
 Unit of Measurement: SQ.M.
 Quantity: 830.45 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor Installation: a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer Stripping: a. Construction Foreman/Engineering Assistant b. Laborer				- - - - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Marine Plywood , 1/2" x 4' x 8' (2 uses) b. Rough Lumber, 2" x 3" x 12' (2 uses) c. Assorted Common Wire Nails	147.00 4,918.00 147.00	pcs. bd.ft. kgs.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 4. Roofing Works
 a. Pedestal
 a.1 Concrete, 21 Mpa

Unit of Measurement: CU.M.
 Quantity: 0.85 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One-Bagger Mixer b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Portland Cement, 40kg b. Sand, Washed c. Crushed Gravel, 3/4"	8.00 0.50 1.10	bags cu.m. cu.m.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Roofing Works
a. Pedestal
a.2 Reinforcing Steel Bars (including Tiewire)
Unit of Measurement: KGS.
Quantity: 441.46 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Bar Cutter b. Bar Bender c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. 16mmø x 6.0m Def Bar, Grade 40 b. 10mmø x 6.0m Def Bar, Grade 40 c. G.A. #16 G.I. Tiewire	348.17 93.29 6.00	pcs. pcs. kgs.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Roofing Works
a. Pedestal
a.3 Formworks

Unit of Measurement: SQ.M.
Quantity: 13.23 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor Installation: a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer Stripping: a. Construction Foreman/Engineering Assistant b. Laborer				- - - - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Ordinary Plywood , 1/2" x 4' x 8' (2 uses) b. Rough Lumber, 2" x 3" x 12' (2 uses) c. Assorted Common Wire Nails	3.00 87.00 9.00	pcs. bd.ft. kgs.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Roofing Works
b. Truss and Roofing
b.1 Truss

Unit of Measurement: LOT
Quantity: 1.00 LOT

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	Fabrication:				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Erection and Installation:				
	a. Skilled Laborer				-
	b. Laborer				-
Sub-Total for A				Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Welding Machine				-
	b. Bar Cutter				-
	c.				-
Sub-Total for B				Php	-
Total (A+B)				Php	-
Labor and Equipment Unit Cost (C ÷ Qty)				Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. G.I. Pipe, 25mmø Sched 40 x 6m	270.00	pcs.		-
	b. G.I. Pipe, 50mmø Sched 40 x 6m	183.00	pcs.		-
	c. G.I. Pipe, 100mmø Sched 40 x 6m	12.00	pcs.		-
	d. Anchor Bolt, 12mmø ASTM A36	120.00	pcs.		-
	e. Base Plate, 250mm x 250mm x 8mm thk	30.00	pcs.		-
	f. Welding Rod	370.00	kgs.		-
	g. Rust Converter, 4L/gal	10.00	gals		-
	h. Red Oxide Metal Primer , 4L/gal	14.00	gals		-
	i. Paint Thinner, 4L/gal	4.00	gal		-
	j. Paint Brush, 2"	12.00	pcs.		-
	k. Paint Brush, 4"	12.00	pcs.		-
	l. Steel Brush	12.00	pcs.		-
	m. Consumables (5% of Materials Cost)				-
Sub-Total for E				Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))				-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 4. Roofing Works
 b. Truss and Roofing
 b.2 Roofing and Accessories
 Unit of Measurement: SQ.M.
 Quantity: 743.00 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Black Sunshade Net b. Nylon Twine Thread, Black 80g c. Consumables (5% of Materials Cost)	743.00 5.00	sq.m. rolls		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Hollow Blocks
a. 100mm thk CHB, 350 psi. (include mortar and rebars)
Unit of Measurement: SQ.M.
Quantity: 13.23 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One Bagger Mixer b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. CHB, 4" thk b. Portland Cement, 40kg c. Sand, Washed d. 10mmø x 6.0m Def Bar, Grade 40 e. G.A. #16 G.I. Tiewire	166.00 5.00 0.60 34.93 1.00	pcs. bags cu.m. kgs. kg.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 5. Concrete Hollow Blocks
 b. 150mm thk CHB, 350 psi. (include mortar and rebars)
 Unit of Measurement: SQ.M.
 Quantity: 233.60 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One Bagger Mixer b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. CHB, 6" thk b. Cement, 40kg c. Sand, Washed d. 10mmø x 6.0m Def Bar, Grade 40 e. G.A. #16 G.I. Tiewire	2,920.00 179.00 19.70 616.42 8.00	pcs. bags cu.m. kgs. kgs.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 6. Concrete Finishes
 a. Plain Cement Plaster Finish, 12mm thk
 (Interior and Exterior Wall of Tank, including Column and Lintel Beam, Stair)
 Unit of Measurement: SQ.M.
 Quantity: 690.29 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand, Fine	99.00 8.30	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 6. Concrete Finishes
b. Concrete Topping, 50mm thk
Unit of Measurement: SQ.M.
Quantity: 800.23 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand	480.00 35.60	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 6. Concrete Finishes
c. Epoxy Paint Finish
Unit of Measurement: SQ.M.
Quantity: 590.37 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Epoxy Primer, 4L/gal b. Acrylic Water-Based Epoxy Paint (2 coats), 4L/gal c. Epoxy Reducer, 4L/gal d. Consumables (5% of Materials Cost)	30.00 47.00 8.00	gals gals gal		- - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 7. Waterproofing Works
a. Cementitious Waterproofing (Interior of Tank)
Unit of Measurement: SQ.M.
Quantity: 544.26 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cementitious Waterproofing (2 Coats), 4L/gal b. Consumable (5% of Materials Cost)	204.00	gals		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 8. Painting Works
 a. Exterior Wall of Tank, Lintel Beam and Column
 Unit of Measurement: SQ.M.
 Quantity: 345.30 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Acrytex Primer, 4L/gal	14.00	gals		-
	b. Acrytex Putty, 4L/gal	30.00	gals		-
	c. Acrytex Reducer, 4L/gal	11.00	gals		-
	d. Acrytex Topcoat Paint (2 Coats), 4L/gal	29.00	gals		-
	e. Paint tray w/ Roller brush	16.00	pcs.		-
	f. Paint Brush, 2"	16.00	pcs.		-
	g. Paint Brush, 4"	16.00	pcs.		-
	h. Other Consumables				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
V. CIRCULAR TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 8. Painting Works
b. Interior of Tank
Unit of Measurement: SQ.M.
Quantity: 544.26 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Acrytex Paint (2 Coats), 4L/gal	44.00	gals		-
	b. Acrytex Reducer, 4L/gal	11.00	gals		-
	c. Paint tray w/ Roller brush	22.00	pcs.		-
	d. Paint Brush, 2"	22.00	pcs.		-
	e. Paint Brush, 4"	22.00	pcs.		-
	f. Other Consumables				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VI. TREATMENT TANK

Item of Work: A. SITEWORKS
Item No./Description: 1. Excavation (Common Soil)
Unit of Measurement: CU.M.
Quantity: 15.50 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Dump Truck (12 yd³) b. Backhoe (0.80 m³/1.04 yd³) c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VI. TREATMENT TANK

Item of Work: A. SITEWORKS
 Item No./Description: 2. Soil Treatment
 Unit of Measurement: SQ.M.
 Quantity: 68.90 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Soil Treatment	5.00	gallons		0.00
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VI. TREATMENT TANK

Item of Work: A. SITEWORKS
 Item No./Description: 3. Gravel Bedding, 75mm thk
 Unit of Measurement: CU.M.
 Quantity: 5.20 CU.M.

Designation		No. Person	No. of Hours	Hourly Rate	Amount
A.	Labor a. Unskilled Worker				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Hourly Rate	Amount
B.	Equipment a. Plate Compactor b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Gravel Bedding, G-1 (w/ 5% Shrinkage Factor)	5.20	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VI. TREATMENT TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 1. Concrete Works
a. Footing, Column and Lintel Beam (21 MPa)
Unit of Measurement: CU.M.
Quantity: 12.56 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. One-Bagger Mixer				-
	b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Portland Cement, 40kg	113.00	bags		-
	b. Sand, Washed	6.30	cu.m.		-
	c. Crushed Gravel, 3/4"	12.60	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

VI. TREATMENT TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 2. Reinforcing Steel Bars (including Tiewire)
 a. Footing, Column and Lintel Beam
 Unit of Measurement: KGS.
 Quantity: 973.99 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Bar Cutter b. Bar Bender c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. 12mmø x 6.0m Def Bar, Grade 40 b. 10mmø x 6.0m Def Bar, Grade 40 c. G.A. #16 G.I. Tiewire	766.03 207.96 12.00	kgs. kgs. kgs.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VI. TREATMENT TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 3. Formworks and Scaffoldings
a. Column and Lintel Beam
Unit of Measurement: SQ.M.
Quantity: 46.67 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor Installation: a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer Stripping: a. Construction Foreman/Engineering Assistant b. Laborer				- - - - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
F.	Materials a. Marine Plywood , 1/2" x 4' x 8' b. Rough Lumber, 2" x 3" x 12' c. Assorted Common Wire Nails	16.00 609.00 9.00	pcs. bd.ft. kgs.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VI. TREATMENT TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Steel Works
a. Ladder Rung (Stainless Steel)
Unit of Measurement: KGS.
Quantity: 3.00 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Welding Machine b. Bar Cutter c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Stainless Steel Round Bar, 12mmø x 6.0m b. Consumables (5% of Materials Cost)	3.00	kgs.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VI. TREATMENT TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Hollow Blocks
a. 150mm thk CHB, 350 psi. (include mortar and rebars)
Unit of Measurement: SQ.M.
Quantity: 38.75 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One Bagger Mixer b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. CHB, 6" thk b. Cement, 40kg c. Sand, Washed d. 10mmø x 6.0m Def Bar, Grade 40 e. G.A. #16 G.I. Tiewire	484.00 30.00 3.30 148.82 3.00	pcs. bags cu.m. kgs. kgs.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

VI. TREATMENT TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 6. Concrete Finishes
 a. Plain Cement Plaster Finish, 12mm thk
 (Column, Lintel Beam, Exterior and Interior Wall of Tank)
 Unit of Measurement: SQ.M.
 Quantity: 113.42 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand, Fine	16.00 1.40	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VI. TREATMENT TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 6. Concrete Finishes
b. Concrete Topping, 50mm thk
Unit of Measurement: SQ.M.
Quantity: 62.16 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand	37.00 2.80	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VI. TREATMENT TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 7. Waterproofing Works
a. Cementitious Waterproofing (Interior of Tank)
Unit of Measurement: SQ.M.
Quantity: 119.62 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cementitious Waterproofing (2 Coats), 4L/gal b. Consumable (5% of Materials Cost)	45.00	gals		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VI. TREATMENT TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 8. Painting Works
a. Exterior Wall of Tank, Lintel Beam and Column
Unit of Measurement: SQ.M.
Quantity: 55.97 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Acrytex Primer, 4L/gal	3.00	gals		-
	b. Acrytex Putty, 4L/gal	5.00	gals		-
	c. Acrytex Reducer, 4L/gal	2.00	gals		-
	d. Acrytex Topcoat Paint (2 Coats), 4L/gal	5.00	gals		-
	e. Paint tray w/ Roller brush	2.00	pcs.		-
	f. Paint Brush, 2"	2.00	pcs.		-
	g. Paint Brush, 4"	2.00	pcs.		-
	h. Other Consumables				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

VII. SUMP PIT

Item of Work: A. SITEWORKS
 Item No./Description: 1. Excavation (Common Soil)
 Unit of Measurement: CU.M.
 Quantity: 74.80 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Dump Truck (12 yd³) b. Backhoe (0.80 m³/1.04 yd³) c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VII. SUMP PIT

Item of Work: A. SITEWORKS
Item No./Description: 2. Backfill and Compaction
Unit of Measurement: CU.M.
Quantity: 16.30 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Plate Compactor(5 hp) b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VII. SUMP PIT

Item of Work: A. SITEWORKS
 Item No./Description: 3. Soil Treatment
 Unit of Measurement: SQ.M.
 Quantity: 24.90 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Soil Treatment	2.00	gallons		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VII. SUMP PIT

Item of Work: A. SITEWORKS
 Item No./Description: 4. Gravel Bedding, 75mm thk
 Unit of Measurement: CU.M.
 Quantity: 1.90 CU.M.

Designation		No. Person	No. of hours	Hourly Rate	Amount
A.	Labor a. Unskilled Worker				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Hours	Hourly Rate	Amount
B.	Equipment a. Plate Compactor b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Gravel Bedding, G-1 (w/ 5% Shrinkage Factor)	1.90	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VII. SUMP PIT

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 1. Concrete Works
a. Footing, Shearwall and Slab (21 MPa)
Unit of Measurement: CU.M.
Quantity: 22.05 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One-Bagger Mixer b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Portland Cement, 40kg b. Sand, Washed c. Crushed Gravel, 3/4"	198.00 11.00 22.10	bags cu.m. cu.m.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VII. SUMP PIT

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 2. Reinforcing Steel Bars (including Tiewire)
a. Footing, Shearwall and Slab
Unit of Measurement: KGS.
Quantity: 2,279.12 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Bar Cutter b. Bar Bender c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. 16mmø x 6.0m Def Bar, Grade 40 b. 12mmø x 6.0m Def Bar, Grade 40 c. 10mmø x 6.0m Def Bar, Grade 40 d. G.A. #16 G.I. Tiewire	1,014.66 1,009.14 255.32 23.00	kgs. kgs. kgs. kgs.		- - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

VII. SUMP PIT

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 3. Formworks and Scaffoldings
 a. Footing, Shearwall and Slab
 Unit of Measurement: SQ.M.
 Quantity: 126.04 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor Installation: a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer Stripping: a. Construction Foreman/Engineering Assistant b. Laborer				- - - - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Marine Plywood , 1/2" x 4' x 8' b. Rough Lumber, 2" x 3" x 12' c. Assorted Common Wire Nails	44.00 1,029.00 16.00	pcs. bd.ft. kgs.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VII. SUMP PIT

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Steel Works
a. Ladder Rung (Stainless Steel)
Unit of Measurement: KGS.
Quantity: 15.10 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Welding Machine b. Bar Cutter c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Stainless Steel Round Bar, 12mmø x 6.0m b. Consumables (5% of Materials Cost)	15.10	kgs.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VII. SUMP PIT

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
a. Plain Cement Plaster Finish, 12mm thk (Interior of Tank)
Unit of Measurement: SQ.M.
Quantity: 91.56 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand, Fine	13.00 1.10	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VII. SUMP PIT

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 6. Waterproofing Works
a. Cementitious Waterproofing (Interior of Tank)
Unit of Measurement: SQ.M.
Quantity: 91.56 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cementitious Waterproofing (2 Coats), 4L/gal b. Consumable (5% of Materials Cost)	34.00	gals		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VII. SUMP PIT

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 6. Waterproofing Works
b. Rubber Waterstop Dumbbell Type, 6" x 1/4"
Unit of Measurement: L.M.
Quantity: 27.00 L.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Rubber Waterstop Dumbbell Type, 6" x 1/4" b. Consumable (5% of Materials Cost)	27.00	l.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: A. SITEWORKS
 Item No./Description: 1. Excavation (Common Soil)
 Unit of Measurement: CU.M.
 Quantity: 29.20 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Dump Truck (12 yd³) b. Backhoe (0.80 m³/1.04 yd³) c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: A. SITEWORKS
Item No./Description: 2. Backfill and Compaction
Unit of Measurement: CU.M.
Quantity: 25.10 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Plate Compactor(5 hp) b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: A. SITEWORKS
 Item No./Description: 3. Soil Treatment
 Unit of Measurement: SQ.M.
 Quantity: 58.50 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Soil Treatment	4	gallons		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: A. SITEWORKS
 Item No./Description: 4. Backfill Materials
 Unit of Measurement: CU.M.
 Quantity: 49.50 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Tandem Roller b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Backfill Materials (w/ 25% shrinkage factor)	49.50	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: A. SITEWORKS
 Item No./Description: 5. Gravel Bedding, 50mm thk
 Unit of Measurement: CU.M.
 Quantity: 2.90 CU.M.

Designation		No. Person	No. of hours	Hourly Rate	Amount
A.	Labor a. Unskilled Worker				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Hours	Hourly Rate	Amount
B.	Equipment a. Plate Compactor b.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Gravel Bedding G-1 (w/ 5% Shrinkage Factor)	2.90	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

VIII. INTENSIVE HATCHERY

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS

Item No./Description: 1. Concrete Works

a. Column Footing, Grade Beam, Slab on Grade, Column, Roof Beam and Roof Slab (21 MPa)

Unit of Measurement: CU.M.

Quantity: 28.77 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. One-Bagger Mixer				-
	b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Column Footing				
	a. Portland Cement, 40kg	38.00	bags		-
	b. Sand, Washed	2.10	cu.m.		-
	c. Crushed Gravel, 3/4"	4.30	cu.m.		-
	Grade Beam				
	d. Portland Cement, 40kg	22.00	bags		-
	e. Sand, Washed	1.20	cu.m.		-
	f. Crushed Gravel, 3/4"	2.40	cu.m.		-
	Slab on Grade				
	g. Portland Cement, 40kg	27.00	bags		-
	h. Sand, Washed	1.50	cu.m.		-
	i. Crushed Gravel, 3/4"	3.00	cu.m.		-
	Column				
	j. Portland Cement, 40kg	18.00	bags		-
	k. Sand, Washed	1.00	cu.m.		-
	l. Crushed Gravel, 3/4"	2.00	cu.m.		-
	Roof Beam				
	m. Portland Cement, 40kg	58.00	bags		-
	n. Sand, Washed	3.20	cu.m.		-
	o. Crushed Gravel, 3/4"	6.40	cu.m.		-
	Roof Slab				
	p. Portland Cement, 40kg	75.00	bags		-
	q. Sand, Washed	4.20	cu.m.		-
	r. Crushed Gravel, 3/4"	8.40	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 2. Reinforcing Steel Bars (including Tiewire)
a. Column Footing, Grade Beam, Slab on Grade, Column, Roof Beam and Roof Slab

Unit of Measurement: KGS.
Quantity: 2,984.12 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Bar Cutter				-
	b. Bar Bender				-
	c.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Column Footing				
	a. 16mmø x 6.0m Def Bar, Grade 40	278.53	kgs.		-
	b. G.A. #16 G.I. Tiewire	2.00	kgs.		-
	Grade Beam				
	c. 16mmø x 6.0m Def Bar, Grade 40	277.21	kgs.		-
	d. 10mmø x 6.0m Def Bar, Grade 40	159.06	kgs.		-
	e. G.A. #16 G.I. Tiewire	6.00	kgs.		-
	Slab on Grade				
	f. 10mmø x 6.0m Def Bar, Grade 40	200.42	kgs.		-
	g. G.A. #16 G.I. Tiewire	3.00	kgs.		-
	Column				
	h. 16mmø x 6.0m Def Bar, Grade 40	238.75	kgs.		-
	i. 10mmø x 6.0m Def Bar, Grade 40	116.61	kgs.		-
	j. G.A. #16 G.I. Tiewire	5.00	kgs.		-
	Roof Beam				
	k. 16mmø x 6.0m Def Bar, Grade 40	801.19	kgs.		-
	l. 10mmø x 6.0m Def Bar, Grade 40	367.73	kgs.		-
	m. G.A. #16 G.I. Tiewire	15.00	kgs.		-
	Roof Slab				
	n. 16mmø x 6.0m Def Bar, Grade 40	129.27	kgs.		-
	o. 10mmø x 6.0m Def Bar, Grade 40	415.35	kgs.		-
	p. G.A. #16 G.I. Tiewire	9.00	kgs.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 3. Formworks and Scaffoldings
a. Column Footing, Grade Beam, Column, Roof Beam and Roof Slab
Unit of Measurement: SQ.M.
Quantity: 226.75 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor Installation: a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer Stripping: a. Construction Foreman/Engineering Assistant b. Laborer				- - - - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Marine Plywood , 1/2" x 4' x 8' b. Rough Lumber, 2" x 3" x 12' c. Assorted Common Wire Nails	79.00 3,696.00 185.00	pcs. bd.ft. kgs.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Concrete Hollow Blocks
a. 100mm thk CHB, 350 psi. (include mortar and rebars)
Unit of Measurement: SQ.M.
Quantity: 16.63 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One Bagger Mixer b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. CHB, 4" thk b. Portland Cement, 40kg c. Sand, Washed d. 10mmø x 6.0m Def Bar, Grade 40 e. G.A. #16 G.I. Tiewire	208.00 9.00 0.70 43.92 0.60	pcs. bags cu.m. kgs. kgs.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Concrete Hollow Blocks
b. 150mm thk CHB, 350 psi. (include mortar and rebars)
Unit of Measurement: SQ.M.
Quantity: 82.22 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One Bagger Mixer b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. CHB, 6" thk b. Cement, 40kg c. Sand, Washed d. 10mmø x 6.0m Def Bar, Grade 40 e. G.A. #16 G.I. Tiewire	1,028.00 84.00 6.90 217.11 3.00	pcs. bags cu.m. kgs. kgs.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
a. Plain Cement Plaster Finish, 12mm thk (Interior)
Unit of Measurement: SQ.M.
Quantity: 144.02 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand, Fine	21.00 1.70	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
b. Plain Cement Plaster Finish, 12mm thk (Exterior)
Unit of Measurement: SQ.M.
Quantity: 204.90 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand, Fine	30.00 2.50	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
c. Concrete Topping, 50mm thk
Unit of Measurement: SQ.M.
Quantity: 129.44 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand	78.00 5.80	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
d. Epoxy Paint Finish
Unit of Measurement: SQ.M.
Quantity: 45.40 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Epoxy Primer b. Acrylic Water-Based Epoxy Paint (2 coats), 4L/gal c. Epoxy Reducer d. Consumables (5% of Materials Cost)	3.00 4.00 3.00	gals gals liters		- - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 6. Waterproofing Works
a. Cementitious Waterproofing (Roof Slab)
Unit of Measurement: SQ.M.
Quantity: 100.67 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cementitious Waterproofing (2 Coats), 4L/gal	38.00	gals		-
	b. Consumable (5% of Materials Cost)				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 7. Painting Works
a. Interior Wall, Column, Beam and Slab Soffit
Unit of Measurement: SQ.M.
Quantity: 144.02 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Primer, 4L/gal b. Masonry Putty, 4L/gal c. Semi-Gloss Latex Paint (2 Coats), 4L/gal d. Paint tray w/ Roller brush e. Paint Brush, 2" f. Paint Brush, 4" h. Other Consumables	6.00 14.00 10.00 5.00 5.00 5.00	gals gals gals pcs. pcs. pcs.		- - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 7. Painting Works
b. Exterior Wall, Column, Beam, Soffit and Parapet Wall
Unit of Measurement: SQ.M.
Quantity: 204.90 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Acrytex Primer, 4L/gal b. Acrytex Putty, 4L/gal c. Acrytex Reducer, 4L/gal d. Acrytex Topcoat Paint (2 Coats), 4L/gal e. Paint tray w/ Roller brush f. Paint Brush, 2" g. Paint Brush, 4" h. #REF!	8.00 20.00 6.00 16.00 7.00 7.00 7.00	gals gals gals gals pcs. pcs. pcs.		- - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 8. Supply and Installation of Doors
a. D1 - Single Swing Glass Door with 12mm thk Clear Tempered Glass on Powder Coated Aluminum Frame, with Stainless Steel Push Bar (900mmW x 2100mmH)
Unit of Measurement: SET
Quantity: 2.00 SETS

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Single Swing Glass Door with 12mm thk Clear Tempered Glass on Powder Coated Aluminum Frame, with Stainless Steel Push Bar (900mmW x 2100mmH) b. Consumables (5% of Materials Cost)	2.00	sets		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
VIII. INTENSIVE HATCHERY

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 9. Supply and Installation of Windows
a. W1 - Awning Window with 6mm thk Reflective Tempered Glass on Powder Coated Aluminum Frame (1200mmW x 900mmH)

Unit of Measurement: SET
Quantity: 8.00 SETS

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Awning Window with 6mm thk Reflective Tempered Glass on Powder Coated Aluminum Frame (1200mmW x 900mmH)	8.00	sets		-
	b. Consumables (5% of Materials Cost)				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))				-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IX. GENERATOR HOUSE

Item of Work: A. SITEWORKS
Item No./Description: 1. Excavation (Common Soil)
Unit of Measurement: CU.M.
Quantity: 21.00 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Dump Truck (12 yd³) b. Backhoe (0.80 m³/1.04 yd³) c.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IX. GENERATOR HOUSE

Item of Work: A. SITEWORKS
Item No./Description: 2. Backfill and Compaction
Unit of Measurement: CU.M.
Quantity: 18.10 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Plate Compactor(5 hp) b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IX. GENERATOR HOUSE

Item of Work: A. SITEWORKS
 Item No./Description: 3. Soil Treatment
 Unit of Measurement: SQ.M.
 Quantity: 20.80 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Soil Treatment	2	gallons		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IX. GENERATOR HOUSE

Item of Work: A. SITEWORKS
Item No./Description: 4. Backfill Materials
Unit of Measurement: CU.M.
Quantity: 4.30 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Tandem Roller b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Backfill Materials (w/ 25% shrinkage factor)	4.30	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IX. GENERATOR HOUSE

Item of Work: A. SITEWORKS
 Item No./Description: 5. Gravel Bedding, 50mm thk
 Unit of Measurement: CU.M.
 Quantity: 1.00 CU.M.

Designation		No. Person	No. of hours	Hourly Rate	Amount
A.	Labor a. Unskilled Worker				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Hours	Hourly Rate	Amount
B.	Equipment a. Plate Compactor b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Gravel Bedding G-1 (w/ 5% Shrinkage Factor)	1.00	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

IX. GENERATOR HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 1. Concrete Works
 a. Column Footing, Grade Beam, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab (21 MPa)

Unit of Measurement: CU.M.
 Quantity: 12.65 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
Sub-Total for A				Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. One-Bagger Mixer				-
	b.				
Sub-Total for B				Php	-
Total (A+B)				Php	-
Labor and Equipment Unit Cost (C ÷ Qty)				Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Column Footing				
	a. Portland Cement, 40kg	27.00	bags		-
	b. Sand, Washed	1.50	cu.m.		-
	c. Crushed Gravel, 3/4"	3.00	cu.m.		-
	Grade Beam				
	d. Portland Cement, 40kg	10.00	bags		-
	e. Sand, Washed	0.50	cu.m.		-
	f. Crushed Gravel, 3/4"	1.10	cu.m.		-
	Slab on Grade				
	g. Portland Cement, 40kg	11.00	bags		-
	h. Sand, Washed	0.60	cu.m.		-
	i. Crushed Gravel, 3/4"	1.30	cu.m.		-
	Ramp				
	j. Portland Cement, 40kg	3.00	bags		-
	k. Sand, Washed	0.10	cu.m.		-
	l. Crushed Gravel, 3/4"	0.30	cu.m.		-
	Column				
	m. Portland Cement, 40kg	10.00	bags		-
	n. Sand, Washed	0.60	cu.m.		-
	o. Crushed Gravel, 3/4"	1.10	cu.m.		-
	Roof Beam				
	p. Portland Cement, 40kg	27.00	bags		-
	q. Sand, Washed	1.50	cu.m.		-
	r. Crushed Gravel, 3/4"	3.00	cu.m.		-
	Roof Slab				
	s. Portland Cement, 40kg	26.00	bags		-
	t. Sand, Washed	1.50	cu.m.		-
	u. Crushed Gravel, 3/4"	2.90	cu.m.		-
Sub-Total for E				Php	-
Material Unit Cost (E ÷ Qty)				Php	-
Estimated Direct Cost (D+F)				Php	-
Plus:					
H. Overhead, Contingencies & Miscellaneous (OCM)					-
I. Contractor's Profit (CP)					-
J. Value Added Tax (VAT) (5% of (G + H + I))			5%		-
Total Cost of Work Item				Php	-
Total Unit Cost (Total Cost of Work Item/Quantity)					-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

IX. GENERATOR HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 2. Reinforcing Steel Bars (including Tiewire)
 a. Column Footing, Grade Beam, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab

Unit of Measurement: KGS.
 Quantity: 1,615.71 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Bar Cutter				-
	b. Bar Bender				-
	c.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Column Footing				
	a. 16mmø x 6.0m Def Bar, Grade 40	208.43	kgs.		-
	b. G.A. #16 G.I. Tiewire	2.00	kgs.		-
	Grade Beam				
	c. 16mmø x 6.0m Def Bar, Grade 40	134.51	kgs.		-
	d. 10mmø x 6.0m Def Bar, Grade 40	74.04	kgs.		-
	e. G.A. #16 G.I. Tiewire	3.00	kgs.		-
	Slab on Grade				
	f. 10mmø x 6.0m Def Bar, Grade 40	75.35	kgs.		-
	g. G.A. #16 G.I. Tiewire	1.00	kgs.		-
	Ramp				
	h. 12mmø x 6.0m Def Bar, Grade 40	14.06	kgs.		-
	i. 10mmø x 6.0m Def Bar, Grade 40	5.42	kgs.		-
	j. G.A. #16 G.I. Tiewire	0.20	kg.		-
	Column				
	k. 12mmø x 6.0m Def Bar, Grade 40	166.74	kgs.		-
	l. 10mmø x 6.0m Def Bar, Grade 40	77.37	kgs.		-
	m. G.A. #16 G.I. Tiewire	3.00	kgs.		-
	Roof Beam				
	n. 16mmø x 6.0m Def Bar, Grade 40	463.34	kgs.		-
	o. 10mmø x 6.0m Def Bar, Grade 40	182.94	kgs.		-
	p. G.A. #16 G.I. Tiewire	8.00	kgs.		-
	Roof Slab				
	q. 16mmø x 6.0m Def Bar, Grade 40	66.67	kgs.		-
	r. 10mmø x 6.0m Def Bar, Grade 40	146.84	kgs.		-
	s. G.A. #16 G.I. Tiewire	3.00	kgs.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IX. GENERATOR HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 3. Formworks and Scaffoldings
a. Column Footing, Grade Beam, Column, Roof Beam and Roof Slab
Unit of Measurement: SQ.M.
Quantity: 107.69 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	Installation:				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Stripping:				
	a. Construction Foreman/Engineering Assistant				-
	b. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Marine Plywood , 1/2" x 4' x 8'	37.00	pcs.		-
	b. Rough Lumber, 2" x 3" x 12'	1,987.00	bd.ft.		-
	c. Assorted Common Wire Nails	99.00	kgs.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IX. GENERATOR HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Concrete Hollow Blocks
a. 100mm thk CHB, 350 psi. (include mortar and rebars)
Unit of Measurement: SQ.M.
Quantity: 10.65 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One Bagger Mixer b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. CHB, 4" thk b. Portland Cement, 40kg c. Sand, Washed d. 10mmø x 6.0m Def Bar, Grade 40 e. G.A. #16 G.I. Tiewire	133.00 6.00 0.60 28.12 0.50	pcs. bags cu.m. kgs. kgs.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IX. GENERATOR HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Concrete Hollow Blocks
b. 150mm thk CHB, 350 psi. (include mortar and rebars)
Unit of Measurement: SQ.M.
Quantity: 27.37 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One Bagger Mixer b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. CHB, 6" thk b. Cement, 40kg c. Sand, Washed d. 10mmø x 6.0m Def Bar, Grade 40 e. G.A. #16 G.I. Tiewire	342.00 28.00 2.80 72.27 1.00	pcs. bags cu.m. kgs. kgs.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IX. GENERATOR HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
a. Plain Cement Plaster Finish, 12mm thk (Interior)
Unit of Measurement: SQ.M.
Quantity: 50.16 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand, Fine	7.00 0.60	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IX. GENERATOR HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
b. Plain Cement Plaster Finish, 12mm thk (Exterior)
Unit of Measurement: SQ.M.
Quantity: 89.16 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand, Fine	13.00 1.10	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IX. GENERATOR HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
c. Concrete Topping, 50mm thk
Unit of Measurement: SQ.M.
Quantity: 42.13 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand	25.00 1.90	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IX. GENERATOR HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
d. Epoxy Paint Finish
Unit of Measurement: SQ.M.
Quantity: 11.23 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Worker c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Epoxy Primer b. Acrylic Water-Based Epoxy Paint (2 coats), 4L/gal c. Epoxy Reducer d. Consumables (5% of Materials Cost)	2.00 1.00 1.00	liters gal liter		- - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IX. GENERATOR HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 6. Waterproofing Works
 a. Cementitious Waterproofing (Roof Slab)
 Unit of Measurement: SQ.M.
 Quantity: 40.23 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Worker c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cementitious Waterproofing (2 Coats), 4L/gal b. Consumable (5% of Materials Cost)	15.00	gals		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IX. GENERATOR HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 7. Painting Works
a. Interior Wall, Column, Beam and Slab Soffit
Unit of Measurement: SQ.M.
Quantity: 50.16 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Worker c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Primer, 4L/gal b. Masonry Putty, 4L/gal c. Semi-Gloss Latex Paint (2 Coats), 4L/gal d. Paint tray w/ Roller brush e. Paint Brush, 2" f. Paint Brush, 4" h. Other Consumables	2.00 5.00 4.00 2.00 2.00 2.00	gals gals gals pcs. pcs. pcs.		- - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IX. GENERATOR HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 7. Painting Works
 b. Exterior Wall, Column, Beam, Soffit and Parapet Wall
 Unit of Measurement: SQ.M.
 Quantity: 89.16 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Worker c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Acrytex Primer, 4L/gal b. Acrytex Putty, 4L/gal c. Acrytex Reducer, 4L/gal d. Acrytex Topcoat Paint (2 Coats), 4L/gal e. Paint tray w/ Roller brush f. Paint Brush, 2" g. Paint Brush, 4" h. Other Consumables	4.00 9.00 3.00 7.00 4.00 4.00 4.00	gals gals gals gals pcs. pcs. pcs.		- - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

IX. GENERATOR HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 8. Supply and Installation of Doors
 a. D1 - Double Swing Steel Louver Door, with Door Jamb and Complete Accessories (Painted) (1800mmW x 2100mmH)
 Unit of Measurement: SET
 Quantity: 1.00 SET

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Worker c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Welding Machine a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Double Swing Steel Louver Door, with Door Jamb and Complete Accessories (Painted) (1800mmW x 2100mmH) b. Consumables (5% of Materials Cost)	1.00	set		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
IX. GENERATOR HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 9. Supply and Installation of Windows
a. W1 - Decorative Louver Block (1600mmW x 800mmH)
Unit of Measurement: SET
Quantity: 2.00 SETS

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Worker c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Decorative Louver Blocks, 200 x 200mm b. Cement, 40kg c. Sand, Washed	64.00 3.00 0.30	pcs. bags cu.m.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
X. BLOWER AND PUMP HOUSE

Item of Work: A. SITEWORKS
 Item No./Description: 1. Excavation (Common Soil)
 Unit of Measurement: CU.M.
 Quantity: 23.30 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Dump Truck (12 yd³) b. Backhoe (0.80 m³/1.04 yd³) c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
X. BLOWER AND PUMP HOUSE

Item of Work: A. SITEWORKS
 Item No./Description: 2. Backfill and Compaction
 Unit of Measurement: CU.M.
 Quantity: 21.90 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Plate Compactor(5 hp) b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
X. BLOWER AND PUMP HOUSE

Item of Work: A. SITEWORKS
 Item No./Description: 3. Soil Treatment
 Unit of Measurement: SQ.M.
 Quantity: 25.50 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Soil Treatment	2	gallons		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
X. BLOWER AND PUMP HOUSE

Item of Work: A. SITEWORKS
 Item No./Description: 4. Backfill Materials
 Unit of Measurement: CU.M.
 Quantity: 10.00 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Tandem Roller b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Backfill Materials (w/ 25% shrinkage factor)	10.00	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
X. BLOWER AND PUMP HOUSE

Item of Work: A. SITEWORKS
 Item No./Description: 5. Gravel Bedding, 50mm thk
 Unit of Measurement: CU.M.
 Quantity: 1.30 CU.M.

Designation		No. Person	No. of hours	Hourly Rate	Amount
A.	Labor a. Unskilled Worker				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Hours	Hourly Rate	Amount
B.	Equipment a. Plate Compactor b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Gravel Bedding G-1 (w/ 5% Shrinkage Factor)	1.30	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
X. BLOWER AND PUMP HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 1. Concrete Works
 a. Column Footing, Grade Beam, Wall Footing, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab (21 MPa)

Unit of Measurement: CU.M.
 Quantity: 15.08 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
Sub-Total for A				Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. One-Bagger Mixer				-
	b.				-
Sub-Total for B				Php	-
Total (A+B)				Php	-
Labor and Equipment Unit Cost (C ÷ Qty)				Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Column Footing				
	a. Portland Cement, 40kg	27.00	bags		-
	b. Sand, Washed	1.50	cu.m.		-
	c. Crushed Gravel, 3/4"	3.00	cu.m.		-
	Grade Beam				
	d. Portland Cement, 40kg	14.00	bags		-
	e. Sand, Washed	0.80	cu.m.		-
	f. Crushed Gravel, 3/4"	1.50	cu.m.		-
	Wall Footing				
	g. Portland Cement, 40kg	3.00	bags		-
	h. Sand, Washed	0.10	cu.m.		-
	i. Crushed Gravel, 3/4"	0.30	cu.m.		-
	Slab on Grade				
	j. Portland Cement, 40kg	14.00	bags		-
	k. Sand, Washed	0.80	cu.m.		-
	l. Crushed Gravel, 3/4"	1.60	cu.m.		-
	Ramp				
	m. Portland Cement, 40kg	8.00	bags		-
	n. Sand, Washed	0.50	cu.m.		-
	o. Crushed Gravel, 3/4"	0.90	cu.m.		-
	Column				
	p. Portland Cement, 40kg	10.00	bags		-
	q. Sand, Washed	0.60	cu.m.		-
	r. Crushed Gravel, 3/4"	1.10	cu.m.		-
	Roof Beam				
	s. Portland Cement, 40kg	29.00	bags		-
	t. Sand, Washed	1.60	cu.m.		-
	u. Crushed Gravel, 3/4"	3.30	cu.m.		-
	Roof Slab				
	v. Portland Cement, 40kg	31.00	bags		-
	w. Sand, Washed	1.70	cu.m.		-
	x. Crushed Gravel, 3/4"	3.40	cu.m.		-
Sub-Total for E				Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
Plus:					
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))				-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

X. BLOWER AND PUMP HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 2. Reinforcing Steel Bars (including Tiewire)
 a. Column Footing, Grade Beam, Wall Footing, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab

Unit of Measurement: KGS.
 Quantity: 1,824.89 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
Sub-Total for A				Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Bar Cutter				-
	b. Bar Bender				-
	c.				-
Sub-Total for B				Php	-
C. Total (A+B)				Php	-
D. Labor and Equipment Unit Cost (C ÷ Qty)				Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Column Footing				
	a. 16mmø x 6.0m Def Bar, Grade 40	208.43	kgs.		-
	b. G.A. #16 G.I. Tiewire	2.00	kgs.		-
	Grade Beam				
	c. 16mmø x 6.0m Def Bar, Grade 40	160.49	kgs.		-
	d. 10mmø x 6.0m Def Bar, Grade 40	100.34	kgs.		-
	e. G.A. #16 G.I. Tiewire	4.00	kgs.		-
	Wall Footing				
	f. 12mmø x 6.0m Def Bar, Grade 40	7.03	kgs.		-
	g. 10mmø x 6.0m Def Bar, Grade 40	6.51	kgs.		-
	h. G.A. #16 G.I. Tiewire	0.30	kg.		-
	Slab on Grade				
	i. 10mmø x 6.0m Def Bar, Grade 40	93.05	kgs.		-
	j. G.A. #16 G.I. Tiewire	1.00	kgs.		-
	Ramp				
	k. 12mmø x 6.0m Def Bar, Grade 40	39.84	kgs.		-
	l. 10mmø x 6.0m Def Bar, Grade 40	16.95	kgs.		-
	m. G.A. #16 G.I. Tiewire	0.60	kg.		-
	Column				
	n. 12mmø x 6.0m Def Bar, Grade 40	166.74	kgs.		-
	o. 10mmø x 6.0m Def Bar, Grade 40	77.37	kgs.		-
	p. G.A. #16 G.I. Tiewire	3.00	kgs.		-
	Roof Beam				
	q. 16mmø x 6.0m Def Bar, Grade 40	492.17	kgs.		-
	r. 10mmø x 6.0m Def Bar, Grade 40	198.03	kgs.		-
	s. G.A. #16 G.I. Tiewire	9.00	kgs.		-
	Roof Slab				
	t. 16mmø x 6.0m Def Bar, Grade 40	79.17	kgs.		-
	u. 10mmø x 6.0m Def Bar, Grade 40	178.77	kgs.		-
	v. G.A. #16 G.I. Tiewire	4.00	kgs.		-
Sub-Total for E				Php	-
F. Material Unit Cost (E ÷ Qty)				Php	-
G. Estimated Direct Cost (D+F)				Php	-
Plus:					
H. Overhead, Contingencies & Miscellaneous (OCM)					-
I. Value Added Tax (VAT) (5% of (G + H + I))			5%		-
J. Value Added Tax (VAT)					-
K. Total Cost of Work Item				Php	-
L. Total Unit Cost (Total Cost of Work Item/Quantity)					-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

X. BLOWER AND PUMP HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS

Item No./Description: 3. Formworks and Scaffoldings

a. Column Footing, Grade Beam, Wall Footing, Column, Roof Beam and Roof Slab

Unit of Measurement: SQ.M.

Quantity: 122.56 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor Installation: a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer Stripping: a. Construction Foreman/Engineering Assistant b. Laborer				- - - - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Marine Plywood , 1/2" x 4' x 8' b. Rough Lumber, 2" x 3" x 12' c. Assorted Common Wire Nails	43.00 2,017.00 101.00	pcs. bd.ft. kgs.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

X. BLOWER AND PUMP HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 4. Concrete Hollow Blocks
 a. 100mm thk CHB, 350 psi. (include mortar and rebars)
 Unit of Measurement: SQ.M.
 Quantity: 21.85 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One Bagger Mixer b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. CHB, 4" thk b. Portland Cement, 40kg c. Sand, Washed d. 10mmø x 6.0m Def Bar, Grade 40 e. G.A. #16 G.I. Tiewire	274.00 11.00 0.90 57.67 0.80	pcs. bags cu.m. kgs. kgs.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

X. BLOWER AND PUMP HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 4. Concrete Hollow Blocks
 b. 150mm thk CHB, 350 psi. (include mortar and rebars)
 Unit of Measurement: SQ.M.
 Quantity: 33.31 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Mason				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. One Bagger Mixer				-
	b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. CHB, 6" thk	417.00	pcs.		-
	b. Cement, 40kg	34.00	bags		-
	c. Sand, Washed	2.80	cu.m.		-
	d. 10mmø x 6.0m Def Bar, Grade 40	87.96	kgs.		-
	e. G.A. #16 G.I. Tiewire	1.00	kgs.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

X. BLOWER AND PUMP HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 5. Concrete Finishes
 a. Plain Cement Plaster Finish, 12mm thk (Interior)
 Unit of Measurement: SQ.M.
 Quantity: 79.49 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand, Fine	11.00 1.00	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

X. BLOWER AND PUMP HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 5. Concrete Finishes
 b. Plain Cement Plaster Finish, 12mm thk (Exterior)
 Unit of Measurement: SQ.M.
 Quantity: 106.26 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand, Fine	15.00 1.30	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

X. BLOWER AND PUMP HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 5. Concrete Finishes
 c. Concrete Topping, 50mm thk
 Unit of Measurement: SQ.M.
 Quantity: 49.52 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand	30.00 2.20	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
X. BLOWER AND PUMP HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
d. Epoxy Paint Finish
Unit of Measurement: SQ.M.
Quantity: 13.62 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Epoxy Primer b. Acrylic Water-Based Epoxy Paint (2 coats), 4L/gal c. Epoxy Reducer d. Consumables (5% of Materials Cost)	1.00 2.00 1.00	gal gals liter		- - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

X. BLOWER AND PUMP HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 6. Waterproofing Works
 a. Cementitious Waterproofing (Roof Slab)
 Unit of Measurement: SQ.M.
 Quantity: 46.11 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cementitious Waterproofing (2 Coats), 4L/gal b. Consumable (5% of Materials Cost)	17.00	gals		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

X. BLOWER AND PUMP HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 7. Painting Works
 a. Interior Wall, Column, Beam and Slab Soffit
 Unit of Measurement: SQ.M.
 Quantity: 79.49 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Primer, 4L/gal	3.00	gals		-
	b. Masonry Putty, 4L/gal	8.00	gals		-
	c. Semi-Gloss Latex Paint (2 Coats), 4L/gal	5.00	gals		-
	d. Paint tray w/ Roller brush	3.00	pcs.		-
	e. Paint Brush, 2"	3.00	pcs.		-
	f. Paint Brush, 4"	3.00	pcs.		-
	h. Other Consumables				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
X. BLOWER AND PUMP HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 7. Painting Works
b. Exterior Wall, Column, Beam, Soffit and Parapet Wall
Unit of Measurement: SQ.M.
Quantity: 106.26 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Acrytex Primer, 4L/gal b. Acrytex Putty, 4L/gal c. Acrytex Reducer, 4L/gal d. Acrytex Topcoat Paint (2 Coats), 4L/gal e. Paint tray w/ Roller brush f. Paint Brush, 2" g. Paint Brush, 4" h. Other Consumables	4.00 11.00 3.00 9.00 4.00 4.00 4.00	gals gals gals gals pcs. pcs. pcs.		- - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

X. BLOWER AND PUMP HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 8. Supply and Installation of Doors
 a. D1 - Single Swing Steel Louver Door, with Door Jamb and Complete Accessories (Painted) (900mmW x 2100mmH)
 Unit of Measurement: SET
 Quantity: 2.00 SETS

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Welding Machine a.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Single Swing Steel Louver Door, with Door Jamb and Complete Accessories (Painted) (900mmW x 2100mmH) b. Consumables (5% of Materials Cost)	2.00	sets		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

X. BLOWER AND PUMP HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 9. Supply and Installation of Windows
 a. W1 - Decorative Louver Block (1600mmW x 800mmH)
 Unit of Measurement: SET
 Quantity: 2.00 SETS

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Decorative Louver Blocks, 200 x 200mm b. Cement, 40kg c. Sand, Washed	64.00 3.00 0.30	pcs. bags cu.m.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: A. SITEWORKS
Item No./Description: 1. Excavation (Common Soil)
Unit of Measurement: CU.M.
Quantity: 55.60 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Dump Truck (12 yd³) b. Backhoe (0.80 m³/1.04 yd³) c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: A. SITEWORKS
Item No./Description: 2. Backfill and Compaction
Unit of Measurement: CU.M.
Quantity: 15.90 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Plate Compactor(5 hp) b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: A. SITEWORKS
 Item No./Description: 3. Soil Treatment
 Unit of Measurement: SQ.M.
 Quantity: 14.90 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Soil Treatment	1	gallon		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: A. SITEWORKS
 Item No./Description: 4. Backfill Materials
 Unit of Measurement: CU.M.
 Quantity: 0.80 CU.M.

Designation		No. Person	No. of Hours	Hourly Rate	Amount
A.	Labor a. Unskilled Worker				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Hours	Hourly Rate	Amount
B.	Equipment a. Plate Compactor b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Backfill Materials (w/ 25% shrinkage factor)	0.80	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: A. SITEWORKS
 Item No./Description: 5. Gravel Bedding, 75mm thk
 Unit of Measurement: CU.M.
 Quantity: 1.10 CU.M.

Designation		No. Person	No. of hours	Hourly Rate	Amount
A.	Labor a. Unskilled Worker				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Hours	Hourly Rate	Amount
B.	Equipment a. Plate Compactor b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Gravel Bedding G-1 (w/ 5% Shrinkage Factor)	1.10	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 1. Concrete Works
a. Footing, Shearwall, Grade Beam, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab (21 MPa)

Unit of Measurement: CU.M.
Quantity: 20.11 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
Sub-Total for A				Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. One-Bagger Mixer				-
	b.				-
Sub-Total for B				Php	-
Total (A+B)				Php	-
Labor and Equipment Unit Cost (C ÷ Qty)				Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Footing				
	a. Portland Cement, 40kg	45.00	bags		-
	b. Sand, Washed	2.50	cu.m.		-
	c. Crushed Gravel, 3/4"	5.00	cu.m.		-
	Shearwall				
	d. Portland Cement, 40kg	61.00	bags		-
	e. Sand, Washed	3.40	cu.m.		-
	f. Crushed Gravel, 3/4"	6.80	cu.m.		-
	Grade Beam				
	g. Portland Cement, 40kg	13.00	bags		-
	h. Sand, Washed	0.70	cu.m.		-
	i. Crushed Gravel, 3/4"	1.40	cu.m.		-
	Slab on Grade				
	j. Portland Cement, 40kg	15.00	bags		-
	k. Sand, Washed	0.90	cu.m.		-
	l. Crushed Gravel, 3/4"	1.70	cu.m.		-
	Ramp				
	m. Portland Cement, 40kg	3.00	bags		-
	n. Sand, Washed	0.20	cu.m.		-
	o. Crushed Gravel, 3/4"	0.30	cu.m.		-
	Column				
	p. Portland Cement, 40kg	20.00	bags		-
	q. Sand, Washed	1.10	cu.m.		-
	r. Crushed Gravel, 3/4"	2.20	cu.m.		-
	Roof Beam				
	s. Portland Cement, 40kg	11.00	bags		-
	t. Sand, Washed	0.60	cu.m.		-
	u. Crushed Gravel, 3/4"	1.30	cu.m.		-
	Roof Slab				
	v. Portland Cement, 40kg	12.00	bags		-
	w. Sand, Washed	0.70	cu.m.		-
	x. Crushed Gravel, 3/4"	1.40	cu.m.		-
Sub-Total for E				Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
Plus:					
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))				-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 2. Reinforcing Steel Bars (including Tiewire)
 a. Footing, Shearwall, Grade Beam, Slab on Grade, Ramp, Column, Roof Beam and Roof Slab

Unit of Measurement: KGS.
 Quantity: 2,293.66 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
Sub-Total for A				Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Bar Cutter				-
	b. Bar Bender				-
	c.				-
Sub-Total for B				Php	-
Total (A+B)				Php	-
Labor and Equipment Unit Cost (C ÷ Qty)				Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Footing				
	a. 16mmø x 6.0m Def Bar, Grade 40	771.19	kgs.		-
	b. G.A. #16 G.I. Tiewire	4.00	kgs.		-
	Grade Beam				
	c. 16mmø x 6.0m Def Bar, Grade 40	178.07	kgs.		-
	d. 10mmø x 6.0m Def Bar, Grade 40	93.27	kgs.		-
	e. G.A. #16 G.I. Tiewire	4.00	kgs.		-
	Shearwall				
	f. 12mmø x 6.0m Def Bar, Grade 40	246.10	kgs.		-
	g. 10mmø x 6.0m Def Bar, Grade 40	110.41	kgs.		-
	h. G.A. #16 G.I. Tiewire	5.80	kg.		-
	Slab on Grade				
	i. 10mmø x 6.0m Def Bar, Grade 40	89.52	kgs.		-
	j. G.A. #16 G.I. Tiewire	2.00	kgs.		-
	Ramp				
	k. 12mmø x 6.0m Def Bar, Grade 40	13.24	kgs.		-
	l. 10mmø x 6.0m Def Bar, Grade 40	5.76	kgs.		-
	m. G.A. #16 G.I. Tiewire	0.20	kg.		-
	Column				
	n. 12mmø x 6.0m Def Bar, Grade 40	301.51	kgs.		-
	o. 10mmø x 6.0m Def Bar, Grade 40	146.60	kgs.		-
	p. G.A. #16 G.I. Tiewire	7.00	kgs.		-
	Roof Beam				
	q. 16mmø x 6.0m Def Bar, Grade 40	175.43	kgs.		-
	r. 10mmø x 6.0m Def Bar, Grade 40	73.04	kgs.		-
	s. G.A. #16 G.I. Tiewire	3.00	kgs.		-
	Roof Slab				
	t. 10mmø x 6.0m Def Bar, Grade 40	89.52	kgs.		-
	u. G.A. #16 G.I. Tiewire	2.00	kgs.		-
Sub-Total for E				Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 3. Formworks and Scaffoldings
 a. Footing, Shearwall, Grade Beam, Column, Roof Beam and Roof Slab
 Unit of Measurement: SQ.M.
 Quantity: 153.91 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	Installation:				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Stripping:				
	a. Construction Foreman/Engineering Assistant				-
	b. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Marine Plywood , 1/2" x 4' x 8'	53.00	pcs.		-
	b. Rough Lumber, 2" x 3" x 12'	2,236.00	bd.ft.		-
	c. Assorted Common Wire Nails	99.00	kgs.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Steel Works
a. Ladder Rung (Stainless Steel)
Unit of Measurement: KGS.
Quantity: 8.17 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Welding Machine b. Bar Cutter c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Stainless Steel Round Bar, 12mmø x 6.0m b. Consumables (5% of Materials Cost)	8.17	kgs.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Hollow Blocks
a. 100mm thk CHB, 350 psi. (include mortar and rebars)
Unit of Measurement: SQ.M.
Quantity: 7.17 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One Bagger Mixer b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. CHB, 4" thk b. Portland Cement, 40kg c. Sand, Washed d. 10mmø x 6.0m Def Bar, Grade 40 e. G.A. #16 G.I. Tiewire	90.00 4.00 0.30 18.95 0.30	pcs. bags cu.m. kgs. kgs.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Hollow Blocks
b. 150mm thk CHB, 350 psi. (include mortar and rebars)
Unit of Measurement: SQ.M.
Quantity: 34.10 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One Bagger Mixer b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. CHB, 6" thk b. Cement, 40kg c. Sand, Washed d. 10mmø x 6.0m Def Bar, Grade 40 e. G.A. #16 G.I. Tiewire	427.00 35.00 2.90 90.05 1.10	pcs. bags cu.m. kgs. kgs.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 6. Concrete Finishes
a. Plain Cement Plaster Finish, 12mm thk (Interior)
Unit of Measurement: SQ.M.
Quantity: 125.31 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand, Fine	18.00 1.50	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 6. Concrete Finishes
b. Plain Cement Plaster Finish, 12mm thk (Exterior)
Unit of Measurement: SQ.M.
Quantity: 65.78 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand, Fine	9.00 0.80	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 6. Concrete Finishes
 c. Epoxy Paint Finish
 Unit of Measurement: SQ.M.
 Quantity: 11.44 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Mason				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Epoxy Primer	1.00	gal		-
	b. Acrylic Water-Based Epoxy Paint (2 coats), 4L/gal	1.00	gal		-
	c. Epoxy Reducer	1.00	liter		-
	d. Consumables (5% of Materials Cost)				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 7. Waterproofing Works
a. Cementitious Waterproofing (Interior of Tank and Roof Slab)
Unit of Measurement: SQ.M.
Quantity: 83.51 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cementitious Waterproofing (2 Coats), 4L/gal b. Consumable (5% of Materials Cost)	31.00	gals		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 8. Painting Works
 a. Interior Wall, Column, Beam and Slab Soffit
 Unit of Measurement: SQ.M.
 Quantity: 47.85 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Primer, 4L/gal b. Masonry Putty, 4L/gal c. Semi-Gloss Latex Paint (2 Coats), 4L/gal d. Paint tray w/ Roller brush e. Paint Brush, 2" f. Paint Brush, 4" h. Other Consumables	2.00 5.00 3.00 3.00 3.00 3.00	gals gals gals pcs. pcs. pcs.		- - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 8. Painting Works
 b. Exterior Wall, Column, Beam and Parapet Wall
 Unit of Measurement: SQ.M.
 Quantity: 65.78 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Mason				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Acrytex Primer, 4L/gal	3.00	gals		-
	b. Acrytex Putty, 4L/gal	7.00	gals		-
	c. Acrytex Reducer, 4L/gal	2.00	gals		-
	d. Acrytex Topcoat Paint (2 Coats), 4L/gal	5.00	gals		-
	e. Paint tray w/ Roller brush	3.00	pcs.		-
	f. Paint Brush, 2"	3.00	pcs.		-
	g. Paint Brush, 4"	3.00	pcs.		-
	h. Other Consumables				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 9. Supply and Installation of Doors
 a. D1 - Double Swing Steel Louver Door, with Door Jamb and Complete Accessories (Painted) (1800mmW x 2100mmH)

Unit of Measurement: SET
 Quantity: 1.00 SETS

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Mason				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Welding Machine				-
	a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a.	1.00	set		-
	Double Swing Steel Louver Door, with Door Jamb and Complete Accessories (Painted) (1800mmW x 2100mmH)				
	b. Consumables (5% of Materials Cost)				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XI. PUMP HOUSE WITH CISTERN TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 10. Supply and Installation of Windows
a. W1 - Decorative Louver Block (1600mmW x 800mmH)
Unit of Measurement: SET
Quantity: 2.00 SETS

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Decorative Louver Blocks, 200 x 200mm b. Cement, 40kg c. Sand, Washed	64.00 3.00 0.30	pcs. bags cu.m.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: A. SITEWORKS
 Item No./Description: 1. Excavation (Common Soil)
 Unit of Measurement: CU.M.
 Quantity: 27.50 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Dump Truck (12 yd³) b. Backhoe (0.80 m³/1.04 yd³) c.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: A. SITEWORKS
Item No./Description: 2. Backfill and Compaction
Unit of Measurement: CU.M.
Quantity: 23.70 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Plate Compactor(5 hp) b.	1	0		-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: A. SITEWORKS
 Item No./Description: 3. Soil Treatment
 Unit of Measurement: SQ.M.
 Quantity: 22.40 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Soil Treatment	2	gallons		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: A. SITEWORKS
Item No./Description: 4. Backfill Materials
Unit of Measurement: CU.M.
Quantity: 1.10 CU.M.

Designation		No. Person	No. of Hours	Hourly Rate	Amount
A.	Labor a. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Hours	Hourly Rate	Amount
B.	Equipment a. Tandem Roller b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Backfill Materials (w/ 25% shrinkage factor)	1.10	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: A. SITEWORKS
 Item No./Description: 5. Gravel Bedding, 50mm thk
 Unit of Measurement: CU.M.
 Quantity: 1.10 CU.M.

Designation		No. Person	No. of hours	Hourly Rate	Amount
A.	Labor a. Unskilled Worker				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Hours	Hourly Rate	Amount
B.	Equipment a. Plate Compactor b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Gravel Bedding G-1 (w/ 5% Shrinkage Factor)	1.10	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 1. Concrete Works
 a. Column Footing, Wall Footing, Slab on Grade, Column, Roof Beam and Roof Slab, including Carcass for Countertop (21 MPa)

Unit of Measurement: CU.M.
 Quantity: 8.54 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
Sub-Total for A				Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. One-Bagger Mixer				-
	b.				-
Sub-Total for B				Php	-
Total (A+B)				Php	-
Labor and Equipment Unit Cost (C ÷ Qty)				Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Column Footing				
	a. Portland Cement, 40kg	11.00	bags		-
	b. Sand, Washed	0.60	cu.m.		-
	c. Crushed Gravel, 3/4"	1.30	cu.m.		-
	Wall Footing				
	d. Portland Cement, 40kg	13.00	bags		-
	e. Sand, Washed	0.70	cu.m.		-
	f. Crushed Gravel, 3/4"	1.50	cu.m.		-
	Slab on Grade				
	g. Portland Cement, 40kg	12.00	bags		-
	h. Sand, Washed	0.70	cu.m.		-
	i. Crushed Gravel, 3/4"	1.30	cu.m.		-
	Column				
	j. Portland Cement, 40kg	21.00	bags		-
	k. Sand, Washed	1.20	cu.m.		-
	l. Crushed Gravel, 3/4"	2.30	cu.m.		-
	Roof Beam				
	m. Portland Cement, 40kg	8.00	bags		-
	n. Sand, Washed	0.50	cu.m.		-
	o. Crushed Gravel, 3/4"	0.90	cu.m.		-
	Roof Slab				
	p. Portland Cement, 40kg	11.00	bags		-
	q. Sand, Washed	0.60	cu.m.		-
	r. Crushed Gravel, 3/4"	1.20	cu.m.		-
Sub-Total for E				Php	-
Material Unit Cost (E ÷ Qty)				Php	-
Estimated Direct Cost (D+F)				Php	-
Plus:					
H. Overhead, Contingencies & Miscellaneous (OCM)					-
I. Contractor's Profit (CP)					-
J. Value Added Tax (VAT) (5% of (G + H + I))					-
K. Total Cost of Work Item				Php	-
L. Total Unit Cost (Total Cost of Work Item/Quantity)					-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 2. Reinforcing Steel Bars (including Tiewire)
a. Column Footing, Wall Footing, Slab on Grade, Column, Roof Beam and Roof Slab, including Carcass for Countertop

Unit of Measurement: KGS.
Quantity: 997.21 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Bar Cutter				-
	b. Bar Bender				-
	c.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Column Footing				
	a. 16mmø x 6.0m Def Bar, Grade 40	125.06	kgs.		-
	b. G.A. #16 G.I. Tiewire	1.00	kgs.		-
	Wall Footing				
	c. 12mmø x 6.0m Def Bar, Grade 40	25.78	kgs.		-
	d. 10mmø x 6.0m Def Bar, Grade 40	40.69	kgs.		-
	e. G.A. #16 G.I. Tiewire	2.00	kgs.		-
	Slab on Grade				
	f. 10mmø x 6.0m Def Bar, Grade 40	73.25	kgs.		-
	g. G.A. #16 G.I. Tiewire	1.00	kgs.		-
	Column				
	h. 16mmø x 6.0m Def Bar, Grade 40	250.12	kgs.		-
	i. 10mmø x 6.0m Def Bar, Grade 40	142.53	kgs.		-
	j. G.A. #16 G.I. Tiewire	4.00	kgs.		-
	Roof Beam				
	k. 16mmø x 6.0m Def Bar, Grade 40	190.30	kgs.		-
	l. 10mmø x 6.0m Def Bar, Grade 40	59.15	kgs.		-
	m. G.A. #16 G.I. Tiewire	4.00	kgs.		-
	Roof Slab				
	n. 10mmø x 6.0m Def Bar, Grade 40	90.33	kgs.		-
	o. G.A. #16 G.I. Tiewire	2.00	kgs.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 3. Formworks and Scaffoldings
a. Column Footing, Wall Footing, Column, Roof Beam and Roof Slab, including Carcass for Countertop
Unit of Measurement: SQ.M.
Quantity: 83.68 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor Installation: a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer Stripping: a. Construction Foreman/Engineering Assistant b. Laborer				- - - - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Marine Plywood , 1/2" x 4' x 8' b. Rough Lumber, 2" x 3" x 12' c. Assorted Common Wire Nails	29.00 1,699.00 85.00	pcs. bd.ft. kgs.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Concrete Hollow Blocks
a. 100mm thk CHB, 350 psi. (include mortar and rebars)
Unit of Measurement: SQ.M.
Quantity: 18.55 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One Bagger Mixer b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. CHB, 4" thk b. Portland Cement, 40kg c. Sand, Washed d. 10mmø x 6.0m Def Bar, Grade 40 e. G.A. #16 G.I. Tiewire	232.00 10.00 0.80 48.97 1.00	pcs. bags cu.m. kgs. kgs.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Concrete Hollow Blocks
b. 150mm thk CHB, 350 psi. (include mortar and rebars)
Unit of Measurement: SQ.M.
Quantity: 31.55 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One Bagger Mixer b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. CHB, 6" thk b. Cement, 40kg c. Sand, Washed d. 10mmø x 6.0m Def Bar, Grade 40 e. G.A. #16 G.I. Tiewire	395.00 32.00 2.70 83.31 1.00	pcs. bags cu.m. kgs. kgs.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
a. Plain Cement Plaster Finish, 12mm thk (Interior)
Unit of Measurement: SQ.M.
Quantity: 45.90 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand, Fine	7.00 0.60	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
b. Plain Cement Plaster Finish, 12mm thk (Exterior)
Unit of Measurement: SQ.M.
Quantity: 67.18 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand, Fine	10.00 0.80	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
c. Concrete Topping, 50mm thk
Unit of Measurement: SQ.M.
Quantity: 27.98 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand	17.00 1.20	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
d. Epoxy Paint Finish
Unit of Measurement: SQ.M.
Quantity: 8.64 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Epoxy Primer b. Acrylic Water-Based Epoxy Paint (2 coats), 4L/gal c. Epoxy Reducer d. Consumables (5% of Materials Cost)	2.00 1.00 1.00	liters gal liter		- - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 6. Tileworks
a. Ceramic Floor Tiles, 300mm x 300mm
(for Toilet, including countertop)
Unit of Measurement: SQ.M.
Quantity: 5.91 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Ceramic Floor Tiles, 300mm x 300mm b. Cement, 40kg c. Tile Adhesive, 25kg d. Tile Grout, 2kg e. Consumables (5% of Materials Cost)	69.00 2.00 2.00 1.00	pcs. bag bag bag		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 6. Tileworks
b. Ceramic Wall Tiles, 300mm x 300mm
(for Toilet: Full Height)
Unit of Measurement: SQ.M.
Quantity: 15.10 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Ceramic Wall Tiles, 300mm x 300mm b. Cement, 40kg c. Tile Adhesive, 25kg d. Tile Grout, 2kg e. Consumables (5% of Materials Cost)	177.00 5.00 4.00 2.00	pcs. bags bags bags		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 7. Ceiling Works
a. Gypsum Board Ceiling, 6mm thk
Unit of Measurement: SQ.M.
Quantity: 10.76 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Gypsum Board, 6mm thk x 4' x 8' b. Wall Angle, 25mm x 25mm x 3.0m c. Carrying Channel, 12mm x 38mm x 5.0m d. Metal Furring, 19mm x 25mm x 5.0m e. Metal Furring, 19mm x 25mm x 5.0m (for hanger) f. W-Clip g. Blind Rivets, 1/8"x 1/2" h. Black Screw i. Consumables (5% of Materials Cost)	4.00 9.00 3.00 4.00 3.00 13.00 2.00 197.00	pcs. pcs. pcs. pcs. pcs. pcs. box pcs.		- - - - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 8. Waterproofing Works
a. Cementitious Waterproofing (Roof Slab)
Unit of Measurement: SQ.M.
Quantity: 24.53 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cementitious Waterproofing (2 Coats), 4L/gal b. Consumable (5% of Materials Cost)	9.00	gals		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 9. Painting Works
a. Interior Wall/Column
Unit of Measurement: SQ.M.
Quantity: 45.90 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Primer, 4L/gal b. Masonry Putty, 4L/gal c. Semi-Gloss Latex Paint (2 Coats), 4L/gal d. Paint tray w/ Roller brush e. Paint Brush, 2" f. Paint Brush, 4" h. Other Consumables	2.00 5.00 3.00 2.00 2.00 2.00	gals gals gals pcs. pcs. pcs.		- - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 9. Painting Works
b. Exterior Wall, Column, Beam, Soffit and Parapet Wall
Unit of Measurement: SQ.M.
Quantity: 67.18 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Acrytex Primer, 4L/gal b. Acrytex Putty, 4L/gal c. Acrytex Reducer, 4L/gal d. Acrytex Topcoat Paint (2 Coats), 4L/gal e. Paint tray w/ Roller brush f. Paint Brush, 2" g. Paint Brush, 4" h. Other Consumables	3.00 7.00 2.00 5.00 3.00 3.00 3.00	gals gals gals gals pcs. pcs. pcs.		- - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 9. Painting Works
c. Gypsum Board Ceiling
Unit of Measurement: SQ.M.
Quantity: 10.76 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment N/A				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Primer, 4L/gal b. Gypsum Putty, 5kg c. Flat Latex Paint (2 Coats), 4L/gal d. Paint tray w/ Roller brush e. Paint Brush, 2" f. Paint Brush, 4" g. Other Consumables	1.00 1.00 1.00 1.00 1.00 1.00	gals bag gals pc. pc. pc.		- - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 10. Supply and Installation of Doors
a. D1 - Single Swing Wooden Panel Door with Door Jamb and Complete Accessories (900mmW x 2100mmH)

Unit of Measurement: SET
Quantity: 1.00 SET

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Single Swing Wooden Panel Door with Door Jamb and Complete Accessories (900mmW x 2100mmH)	1.00	set		-
	b. Consumables (5% of Materials Cost)				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 10. Supply and Installation of Doors
b. D2 - Single Swing PVC Door with Door Jamb and Complete Accessories (700mmW x 2100mmH)

Unit of Measurement: SET
Quantity: 1.00 SET

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Single Swing PVC Door with Door Jamb and Complete Accessories (700mmW x 2100mmH)	1.00	set		-
	b. Consumables (5% of Materials Cost)				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 11. Supply and Installation of Windows
 a. W1 - Sliding Window with 6mm thk Reflective Tempered Glass on Powder Coated Aluminum Frame (1200mmW x 1200mmH)

Unit of Measurement: SET
 Quantity: 1.00 SET

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Sliding Window with 6mm thk Reflective Tempered Glass on Powder Coated Aluminum Frame (1200mmW x 1200mmH) b. Consumables (5% of Materials Cost)	1.00	set		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 11. Supply and Installation of Windows
b. W2 - Sliding Window with 6mm thk Reflective Tempered Glass on Powder Coated Aluminum Frame (1000mmW x 1200mmH)

Unit of Measurement: SET
Quantity: 2.00 SETS

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Sliding Window with 6mm thk Reflective Tempered Glass on Powder Coated Aluminum Frame (1000mmW x 1200mmH) b. Consumables (5% of Materials Cost)	2.00	sets		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XII. GUARD HOUSE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 11. Supply and Installation of Windows
 c. W3 - Awning Window with 6mm thk Reflective Tempered Glass on Powder Coated Aluminum Frame (600mmW x 500mmH)

Unit of Measurement: SET
 Quantity: 1.00 SET

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Awning Window with 6mm thk Reflective Tempered Glass on Powder Coated Aluminum Frame (600mmW x 500mmH)	1.00	set		-
	b. Consumables (5% of Materials Cost)				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIII. ELEVATED WATER TANK

Item of Work: A. SITEWORKS
 Item No./Description: 1. Excavation (Common Soil)
 Unit of Measurement: CU.M.
 Quantity: 9.90 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Dump Truck (12 yd³) b. Backhoe (0.80 m³/1.04 yd³) c.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIII. ELEVATED WATER TANK

Item of Work: A. SITEWORKS
 Item No./Description: 2. Backfill and Compaction
 Unit of Measurement: CU.M.
 Quantity: 9.20 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Plate Compactor(5 hp) b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIII. ELEVATED WATER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 1. Concrete Works
a. Footing and Pedestal
Unit of Measurement: CU.M.
Quantity: 1.68 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One-Bagger Mixer b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Portland Cement, 40kg b. Sand, Washed c. Crushed Gravel, 3/4"	15.00 0.80 1.70	bags cu.m. cu.m.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIII. ELEVATED WATER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 2. Reinforcing Steel Bars (including Tiewire)
a. Footing and Pedestal
Unit of Measurement: KGS.
Quantity: 153.53 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Bar Cutter b. Bar Bender c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials Footing a. 16mmø x 6.0m Def Bar, Grade 40 b. G.A. #16 G.I. Tiewire Pedestal c. 12mmø x 6.0m Def Bar, Grade 40 d. 10mmø x 6.0m Def Bar, Grade 40 e. G.A. #16 G.I. Tiewire	83.37 0.60 49.80 20.36 2.00	kgs. kgs. kgs. kgs. kgs.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIII. ELEVATED WATER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 3. Formworks
a. Footing and Pedestal
Unit of Measurement: SQ.M.
Quantity: 8.62 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor Installation: a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer Stripping: a. Construction Foreman/Engineering Assistant b. Laborer				- - - - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Marine Plywood , 1/2" x 4' x 8' b. Rough Lumber, 2" x 3" x 12' c. Assorted Common Wire Nails	3.00 158.00 8.00	pcs. bd.ft. kgs.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIII. ELEVATED WATER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Steel Works
a. Framing and Railing
Unit of Measurement: L.S.
Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amol
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				
	Sub-Total for A			Php	
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amol
B.	Equipment a. Welding Machine b. Bar Cutter c.				
	Sub-Total for B			Php	
C.	Total (A+B)			Php	
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	
Name and Specifications		Quantity	Unit	Unit Cost	Amol
E.	Materials Framing a. Angle Bar, 63mm x 63mm x 6mm thk x 6m (Main Post) b. Angle Bar, 50mm x 50mm x 6mm thk x 6m (Roof Frame) c. Angle Bar, 38mm x 38mm x 6mm thk x 6m (Cross Bracing) d. Steel Tubular Bar, 50mm x 75mm x 2.0mm thk x 6m (Joist) e. 12mmØ x 6.0m Def Bar, Grade 40 (Ladder) f. Metal Sheet Checkered Plate, 1500mmW x 1500mmL x 1.8mm thk (Platform) g. Base Plate, 150mm x 150mm x 6mm thk h. Anchor Bolt, 16mmØ A36 ASTM Railing i. Steel Tubular Bar, 50mm x 50mm x 1.5mm thk x 6m j. Steel Tubular Bar, 50mm x 100mm x 1.5mm thk x 6m k. Welding Rod l. Rust Converter, 4L/gal m. Red Oxide Metal Primer, 4L/gal n. Paint Thinner, 4L/gal o. Paint Brush, 2" p. Paint Brush, 4" q. Steel Brush r. Consumable (5% of Materials Cost)	2.00 1.00 5.00 2.00 2.00 1.00 4.00 16.00 4.00 2.00 10.00 1.00 2.00 1.00 2.00 2.00 2.00	pcs. pc. pcs. pcs. pcs. set pcs. pcs. pcs. pcs. kgs. gal gals gal pcs. pcs. pcs.		
	Sub-Total for E			Php	
F.	Material Unit Cost (E ÷ Qty)			Php	
G.	Estimated Direct Cost (D+F)			Php	
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				
I.	Contractor's Profit (CP)				
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		
K.	Total Cost of Work Item			Php	

L.	Total Unit Cost (Total Cost of Work Item/Quantity)	
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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIII. ELEVATED WATER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Supply and Installation of Stainless Steel Cylindrical Water Storage Tank (Vertical)
Unit of Measurement: L.S.
Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Stainless Steel Cylindrical Water Storage Tank (Vertical) b. Consumables (5% of Materials Cost)	1.00	lot		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIII. ELEVATED WATER TANK

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 6. Supply and Installation of PPR Pipe from Elevated Water Tank to Guard House
Unit of Measurement: L.S.
Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Fusion (Connecting PPR Pipe) b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. PPR Pipe, 1"ø x 4m (PN10) b. Consumables (5% of Materials Cost)	24.00	pcs.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: A. GUARD HOUSE
Item No./Description: 1. Sanitary Line
a. PVC Pipes and Fittings
Unit of Measurement: L.S.
Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Skilled Laborer				-
	b. Laborer				-
Sub-Total for A				Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a.				
Sub-Total for B				Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. PVC Pipe, 4"ø x 3m (\$1000)	2.00	pcs.		-
	b. PVC Pipe, 2"ø x 3m (\$1000)	4.00	pcs.		-
	c. Elbow 90° x 4"ø	2.00	pcs.		-
	d. Elbow 90° x 2"ø	11.00	pcs.		-
	e. Cleanout, 4"ø	1.00	pc.		-
	f. Sanitary Tee, 4"ø	1.00	pc.		-
	g. Double Sanitary Tee Reducer, 4 x 2"ø	2.00	pcs.		-
	h. P-Trap, 2"ø	2.00	pcs.		-
	i. Floor Drain, 2"ø	2.00	pcs.		-
	j. Consumables (5% of Materials Cost)				-
Sub-Total for E				Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))				-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: A. GUARD HOUSE
Item No./Description: 2. Water Line
a. PPR Pipes and Fittings
Unit of Measurement: L.S.
Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. PPR Pipe, 3/4"ø x 4m (PN10) b. Elbow 90° x 3/4"ø c. Tee 3/4"ø d. Elbow Adapter, 3/4"ø e. Tee Adapter, 3/4"ø f. Gate Valve, 3/4"ø g. Consumables (5% of Materials Cost)	1.00 4.00 1.00 2.00 2.00 1.00	pc. pcs. pc. pcs. pcs. pc.		- - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: A. GUARD HOUSE
Item No./Description: 3. Fixtures and Accessories
a. Water Closet with Complete Accessories
Unit of Measurement: SET
Quantity: 1.00 SET

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Water Closet with Complete Accessories b. Consumables (5% of Materials Cost)	1.00	set		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: A. GUARD HOUSE
Item No./Description: 3. Fixtures and Accessories
b. Lavatory with Complete Accessories
Unit of Measurement: SET
Quantity: 1.00 SET

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Lavatory with Complete Accessories b. Consumables (5% of Materials Cost)	1.00	set		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: A. GUARD HOUSE
Item No./Description: 3. Fixtures and Accessories
c. Bidet with Complete Accessories
Unit of Measurement: SET
Quantity: 1.00 SET

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Bidet with Complete Accessories b. Consumables (5% of Materials Cost)	1.00	set		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: A. GUARD HOUSE
Item No./Description: 3. Fixtures and Accessories
d. Kitchen Sink with Complete Accessories
Unit of Measurement: SET
Quantity: 1.00 SET

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Kitchen Sink with Complete Accessories b. Consumables (5% of Materials Cost)	1.00	set		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: B. FILTER TANK SYSTEM OF RESERVOIR
Item No./Description: 1. Blue Pipes and Fittings
Unit of Measurement: L.S.
Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Blue Pipe, 3"ø S1000 x 3m (Main Line) b. Blue Pipe (Perforated Pipe), 2"ø S1000 x 3m (Secondary Line) c. Ball Valve, 3"ø d. Tee Reducer, 3 x 2"ø e. Elbow 90° x 3"ø f. Tee, 3"ø g. End Cap, 3"ø h. Consumables (5% of Materials Cost)	6.00 3.00 5.00 9.00 4.00 2.00 1.00	pcs. pcs. pcs. pcs. pcs. pcs. pc.		- - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: C. INTENSIVE HATCHERY
Item No./Description: 1. Drain Line
a. Blue Pipes and Fittings
Unit of Measurement: L.S.
Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Blue Pipe, 2"ø x 3m (\$1000) b. Blue Pipe, 3"ø x 3m (\$1000) c. Tee Reducer, 3 x 2"ø d. Elbow 90° x 2"ø e. Elbow 90° x 3"ø f. End Cap, 3"ø Anchoring g. Angle Bar, 1-1/2 x 1-1/2 x 4mm h. Dyna Bolt dia. 12mm x 120mm length i. Stainless Steel U-Bolt - 5/16 for 3" w/ bolts j. Stainless steel U-Bolt - 5/16 for 3/4" w/ bolts k. Consumables (5% of Materials Cost)	13.00 6.00 16.00 16.00 4.00 1.00 2.00 10.00 5.00 5.00	pcs. pcs. pcs. pcs. pcs. pc. pcs. pcs. pcs. pcs.		- - - - - - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: C. INTENSIVE HATCHERY
Item No./Description: 2. Supply Line
a. Blue Pipes and Fittings
Unit of Measurement: L.S.
Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Blue Pipe, 2"ø x 3m (\$1000) b. Blue Pipe, 3"ø x 3m (\$1000) c. Elbow 90° x 2"ø d. Tee Reducer, 3 x 2"ø e. Coupling Reducer, 2 x 1/2"ø f. Male Adapter, 1/2"ø g. Ball Valve, 1/2"ø h. Ball Valve, 3"ø i. Consumables (5% of Materials Cost)	5.00 10.00 3.00 16.00 16.00 32.00 16.00 1.00	pcs. pcs. pcs. pcs. pcs. pcs. pcs. pc.		- - - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: C. INTENSIVE HATCHERY
 Item No./Description: 3. Aeration
 a. Blue Pipes and Fittings
 Unit of Measurement: L.S.
 Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Blue Pipe, 3/4"ø x 3m (\$1000) b. Blue Pipe, 3/4"ø x 3m (\$1000) (Perforated Pipe) c. Elbow 90° x 3/4"ø d. Tee, 3/4"ø e. Consumables (5% of Materials Cost)	4.00 12.00 19.00 16.00	pcs. pcs. pcs. pcs.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: C. INTENSIVE HATCHERY
 Item No./Description: 4. Fixture and Pump
 a. Fiber Glass Jar with Stainless Holder
 Unit of Measurement: SET
 Quantity: 16.00 SETS

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Fiber Glass Jar with Stainless Holder b. Consumables (5% of Materials Cost)	16.00	sets		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: C. INTENSIVE HATCHERY
 Item No./Description: 4. Fixture and Pump
 b. Submersible Pump, 1Hp
 Unit of Measurement: UNIT
 Quantity: 1.00 UNIT

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Submersible Pump, 1Hp b. Consumables (5% of Materials Cost)	1.00	unit		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: C. INTENSIVE HATCHERY
 Item No./Description: 4. Fixture and Pump
 c. IBC tank 1000 liters w/ galvanized steel cover and Steel Stand
 Unit of Measurement: SET
 Quantity: 2.00 SETS

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Welding Machine a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. IBC tank 1000 liters w/ galvanized steel cover and Steel Stand b. Consumables (5% of Materials Cost)	2.00	sets		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: C. INTENSIVE HATCHERY
 Item No./Description: 4. Fixture and Pump
 d. Stainless Steel Tank with Platform(Fry and Rearing Trough)
 Unit of Measurement: SET
 Quantity: 8.00 SETS

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Stainless Steel Tank with Platform(Fry and Rearing Trough) b. Consumables (5% of Materials Cost)	8.00	sets		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: D. DRAINAGE LINES FOR RECTANGULAR TANK, CIRCULAR TANK, SUMP PIT AND RESERVOIR
Item No./Description: 1. PVC Pipes and Fittings
Unit of Measurement: L.S.
Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. PVC Pipe, 3"ø x 3m, S1000 (Standpipe) b. PVC Pipe, 3"ø x 3m, S1000 (Secondary Lines) c. PVC Pipe, 6"ø x 3m, S1000 (Main Pipes) d. PVC Pipe, 6"ø x 3m, S1000 (Main Pipes for Reservoir) e. PVC Pipe, 6"ø x 3m, S1000(Main Pipes for Sump Pit) f. Elbow 90° x 3"ø g. Consumables (5% of Materials Cost)	12.00 35.00 44.00 38.00 33.00 24.00	pcs. pcs. pcs. pcs. pcs. pcs.		- - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: D. DRAINAGE LINES FOR RECTANGULAR TANK, CIRCULAR TANK, SUMP PIT AND RESERVOIR
Item No./Description: 2. Pumps
a. Sewage Pump (2HP) - 400-500 Liter/min. (From Sump Pit)
Unit of Measurement: SET
Quantity: 2.00 SETS

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Sewage Pump (2HP) - 400-500 Liter/min. (From Sump Pit) b. Consumables (5% of Materials Cost)	2.00	sets		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: E. WATER SUPPLY SYSTEM OF RECTANGULAR TANK, CIRCULAR TANK, AND INTENSIVE HATCHERY FROM RESERVOIR (SOURCE)
Item No./Description: 1. Blue Pipes and Fittings
Unit of Measurement: L.S.
Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Blue Pipe, 4"ø x 3m (\$1000) b. Blue Pipe, 2"ø x 3m (\$1000) c. Elbow 90° x 4"ø d. Elbow 90° x 2"ø e. Tee, 2"ø f. Tee, 4"ø g. Coupling Reducer, 4 x 2"ø h. Ball Valve, 4"ø i. Ball Valve, 2"ø j. Consumables (5% of Materials Cost)	23.00 83.00 4.00 44.00 18.00 1.00 4.00 2.00 4.00	pcs. pcs. pcs. pcs. pcs. pc. pc. pcs. pcs.		- - - - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: E. WATER SUPPLY SYSTEM OF RECTANGULAR TANK, CIRCULAR TANK, AND INTENSIVE HATCHERY FROM RESERVOIR (SOURCE)
Item No./Description: 2. Pumps
a. Centrifugal Pump, 1Hp (From Cistern To Elevated Tank)
Unit of Measurement: UNIT
Quantity: 1.00 UNIT

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Centrifugal Pump, 1Hp (From Cistern To Elevated Tank) b. Consumables (5% of Materials Cost)	1.00	unit		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: F. AERATION SYSTEM OF RECTANGULAR TANK, CIRCULAR TANK, AND INTENSIVE HATCHERY
Item No./Description: 1. Blue Pipes and Fittings
Unit of Measurement: L.S.
Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Blue Pipe, 2"ø x 3m, S1000 (Main Lines) b. Blue Pipe, 3/4"ø x 3m, S1000 c. Elbow 90° x 2"ø d. Tee, 2"ø e. Ball Valve, 3/4"ø f. Ball Valve, 2"ø g. Consumables (5% of Materials Cost)	35.00 74.00 49.00 24.00 24.00 2.00	pcs. pcs. pcs. pcs. pcs. pcs.		- - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XIV. PLUMBING WORKS

Item of Work: F. AERATION SYSTEM OF RECTANGULAR TANK, CIRCULAR TANK, AND INTENSIVE HATCHERY
 Item No./Description: 2. Pumps
 a. Roots Blower, 3Hp
 Unit of Measurement: UNIT
 Quantity: 3.00 UNITS

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Roots Blower, 3Hp b. Consumables (5% of Materials Cost)	3.00	units		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**

Item of Work:	H.	FILTER TANK (INTENSIVE HATCHERY)
Item No./Description:	1.	Drain Line
	a.	PVC Pipes and Fittings
Unit of Measurement:	L.S.	
Quantity:	1.00	L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. PVC Pipe, 2"ø x 3m (\$1000) b. Elbow 90° x 2"ø c. Tee, 2"ø d. Consumables (5% of Materials Cost)	5.00 5.00 1.00	pcs. pcs. pc.		- - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF TECHNOLOGY OUTREACH STATION AND REGIONAL TRAINING CENTER**
XIV. PLUMBING WORKS

Item of Work: G. SEPTIC TANK (GUARD HOUSE)
 Item No./Description: 1. Siteworks
 a. Excavation (Common Soil)
 Unit of Measurement: CU.M.
 Quantity: 7.60 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Dump Truck (12 yd³) b. Backhoe (0.80 m³/1.04 yd³) c.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF TECHNOLOGY OUTREACH STATION AND REGIONAL TRAINING CENTER**
XIV. PLUMBING WORKS

Item of Work: G. SEPTIC TANK (GUARD HOUSE)
 Item No./Description: 1. Siteworks
 b. Gravel Bedding, 50mm thk
 Unit of Measurement: CU.M.
 Quantity: 0.30 CU.M.

Designation		No. Person	No. of Hours	Hourly Rate	Amount
A.	Labor a. Unskilled Worker				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Hourly Rate	Amount
B.	Equipment a. Plate Compactor b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Gravel Bedding, G-1 (w/ 5% Shrinkage Factor)	0.30	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF TECHNOLOGY OUTREACH STATION AND REGIONAL TRAINING CENTER**

XIV. PLUMBING WORKS

Item of Work: G. SEPTIC TANK (GUARD HOUSE)
 Item No./Description: 2. Civil And Architectural Works
 a. Concrete Works
 a.1 Footing and Slab (21 MPa)
 Unit of Measurement: CU.M.
 Quantity: 1.30 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One-Bagger Mixer b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Portland Cement, 40kg b. Sand, Washed c. Crushed Gravel, 3/4"	13.00 0.60 1.30	bags cu.m. cu.m.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF TECHNOLOGY OUTREACH STATION AND REGIONAL TRAINING CENTER**
XIV. PLUMBING WORKS

Item of Work: G. SEPTIC TANK (GUARD HOUSE)
 Item No./Description: 2. Civil And Architectural Works
 b. Reinforcing Steel Bars (including Tiewire)
 b.1 Footing and Slab
 Unit of Measurement: KGS.
 Quantity: 61.05 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Bar Cutter b. Bar Bender c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. 10mmø x 6.0m Def Bar, Grade 40 b. G.A. #16 G.I. Tiewire	61.05 1.00	kgs. kg.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF TECHNOLOGY OUTREACH STATION AND REGIONAL TRAINING CENTER**
XIV. PLUMBING WORKS

Item of Work: G. SEPTIC TANK (GUARD HOUSE)
 Item No./Description: 2. Civil And Architectural Works
 c. Formworks
 c.1 Footing and Top Slab
 Unit of Measurement: SQ.M.
 Quantity: 4.13 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor Installation: a. Skilled Laborer b. Laborer Stripping: a. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
F.	Materials a. Marine Plywood , 1/2" x 4' x 8' b. Rough Lumber, 2" x 3" x 12' c. Assorted Common Wire Nails	2.00 38.00 2.00	pcs. bd.ft. kgs.		- - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF TECHNOLOGY OUTREACH STATION AND REGIONAL TRAINING CENTER**
XIV. PLUMBING WORKS

Item of Work: G. SEPTIC TANK (GUARD HOUSE)
Item No./Description: 2. Civil And Architectural Works
d. Concrete Hollow Blocks with Plain Cement Plaster Finish
d.1 150mm thk CHB, 350 psi. (include mortar and rebars)
Unit of Measurement: SQ.M.
Quantity: 13.59 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Mason				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. One Bagger Mixer				-
	b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. CHB, 6" thk	171.00	pcs.		-
	b. Cement, 40kg	23.00	bags		-
	c. Sand, Washed	1.30	cu.m.		-
	d. 10mmø x 6.0m Def Bar, Grade 40	6.04	kgs.		-
	e. G.A. #16 G.I. Tiewire	0.60	kgs.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF TECHNOLOGY OUTREACH STATION AND REGIONAL TRAINING CENTER**
XIV. PLUMBING WORKS

Item of Work: G. SEPTIC TANK (GUARD HOUSE)
 Item No./Description: 2. Civil And Architectural Works
 e. Waterproofing Works
 e.1 Cementitious Waterproofing (Interior of Septic Tank)
 Unit of Measurement: SQ.M.
 Quantity: 13.62 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Skilled Laborer b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cementitious Waterproofing (2 Coats), 4L/gal b. Consumable (5% of Materials Cost)	5.00	gals		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XV. ELECTRICAL WORKS

Item of Work: A. Conductors and Cables; Raceways, Conduits and Boxes; Wiring Devices and Receptacles; Lighting Luminaires; Panelboards & Circuit Breakers; Generator Set Concrete Works and Solar Light Post; Steel Works and Siteworks

Item No./Description:

Unit of Measurement: L.S.

Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	d. Electrician				-
	e. Helper				-
Sub-Total for A				Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Bar Cutter				-
	b. One Bagger Mixer				-
	c.				-
Sub-Total for B				Php	-
Total (A+B)				Php	-
Labor and Equipment Unit Cost (C ÷ Qty)				Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Conductors and Cables Main to Sub-main				
	a. THHN, 8.0 mm2, Copper Conductor	600.00	l.m.		-
	b. THHN, 30.0 mm2, Copper Conductor	1,600.00	l.m.		-
	c. THHN, 50.0 mm2, Copper Conductor	10.00	l.m.		-
	d. THHN, 325.0 mm2, Copper Conductor	50.00	l.m.		-
	e. Grounding rod 5/8"	24.00	l.m.		-
	Conductors and Cables Lighting & Power				
	f. THHN, 2.0 mm2, Copper Conductor	450.00	l.m.		-
	g. THHN, 3.5 mm2, Copper Conductor	410.00	l.m.		-
	Conductors and Cables Motors				
	h. THHN, 5.5 mm2, Copper Conductor	560.00	l.m.		-
	i. THHN, 30.0 mm2, Copper Conductor	20.00	l.m.		-
	Raceways, Conduits and Boxes Main to Sub-mains				
	j. 20 mm dia., PVC Orange Electrical Pipe	300.00	l.m.		-
	k. 32 mm dia., PVC Orange Electrical Pipe	800.00	l.m.		-
	l. 80 mm dia., PVC Orange Electrical Pipe	25.00	l.m.		-
	Raceways, Conduits and Boxes Lighting & Power				
	m. 20 mm dia., PVC Orange Electrical Pipe	225.00	l.m.		-
	n. Utility Box, PVC Orange	20.00	pcs		-
	o. Junction Box, PVC Orange	16.00	pcs		-
	p. G.A. #16 G.I. Pull Wire	10.00	kgs.		-
	Raceways, Conduits and Boxes Motors				
	q. 20 mm dia., PVC Orange Electrical Pipe	280.00	l.m.		-
	r. 32 mm dia., PVC Orange Electrical Pipe	10.00	l.m.		-
	s. Square Box, PVC Orange	9.00	kgs.		-
	t. G.A. #16 G.I. Pull Wire	10.00	kgs.		-

	Wiring Devices and Receptacles				
u.	Single Switch, Wide Series	5.00	set		-
v.	2-Gang Switch, Wide Series	2.00	set		-
w.	2-Gang C.O., Universal	5.00	set		-
x.	ACU Outlet, Universal	3.00	set		-
y.	Exhaust Fan	3.00	set		-
	Lighting Luminaires				
z.	Pinlight Fixture with E27 LED Bulb 12W	9.00	set		-
ab.	Louver Lighting Fixture Set (12"x48"), 1x18Watts LED Tube, Daylight, double ended.	5.00	set		-
	Panelboards & Circuit Breakers				
ac.	Panelboard, Bolt-on, 2 holes, Ga.18	1.00	pc		-
ad.	Panelboard, Bolt-on, 4 holes, Ga.18	4.00	pcs		-
ae.	Panelboard, Bolt-on, 6 holes, Ga.18	1.00	pcs		-
af.	Panelboard, Bolt-on, 8 holes, Ga.18	2.00	pcs		-
ag.	Manual Transfer Switch, 400 AT, 400 AF, Ga.18	1.00	set		-
ah.	20AT, 60AF, Auto-Ckt. Bkr., Bolt-on	11.00	pcs		-
ai.	30AT, 60AF, Auto-Ckt. Bkr., Bolt-on	14.00	pcs		-
aj.	50AT, 60AF, Auto-Ckt. Bkr., Bolt-on	2.00	pcs		-
ak.	80AT, 100AF, Auto-Ckt. Bkr., Bolt-on	2.00	pcs		-
al.	100AT, 100AF, Auto-Ckt. Bkr., Bolt-on	9.00	pcs		-
am.	400AT, 400AF, Auto-Ckt. Bkr., Bolt-on	1.00	pcs		-
an.	Enclosed Circuit Breaker with 30AT Breaker	10.00	set		-
	Generator Set				
ao.	Generator Set, 100 kVA, Single Phase, Silent Type, With Fuel Day Tank	1.00	set		-
	Concrete Works and Solar Light Post				
ap.	THHN, 2.0 mm2, Copper Conductor	1,200.00	l.m.		-
aq.	20 mm dia., PVC Orange Electrical Pipe	600.00	l.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XVI. RETAINING WALL, PERIMETER FENCE AND GATE

Item of Work: A. SITEWORKS
 Item No./Description: 1. Excavation (Common Soil)
 Unit of Measurement: CU.M.
 Quantity: 933.10 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Laborer				- -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. Dump Truck (12 yd³) b. Backhoe (0.80 m³/1.04 yd³) c.				- - -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

PROJECT NAME:

CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION

XVI. RETAINING WALL, PERIMETER FENCE AND GATE

Item of Work: A. SITEWORKS

Item No./Description: 2. Backfill and Compaction

Unit of Measurement: CU.M.

Quantity: 726.60 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Plate Compactor(5 hp)				-
	b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	N/A				
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XVI. RETAINING WALL, PERIMETER FENCE AND GATE

Item of Work: A. SITEWORKS
 Item No./Description: 3. Gravel Bedding, 50mm thk
 Unit of Measurement: CU.M.
 Quantity: 18.60 CU.M.

Designation		No. Person	No. of Hours	Hourly Rate	Amount
A.	Labor a. Unskilled Worker				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Hours	Hours Rate	Amount
B.	Equipment a. Plate Compactor b.				- -
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Gravel Bedding, G-1 (w/ 5% Shrinkage Factor)	18.60	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))			5%	-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XVI. RETAINING WALL, PERIMETER FENCE AND GATE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 1. Concrete Works
a. Retaining Wall, Column Footing, Wall Footing, Column and Lintel Beam (21 Mpa)
Unit of Measurement: CU.M.
Quantity: 255.03 CU.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. One-Bagger Mixer				-
	b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Retaining Wall				
	a. Portland Cement, 40kg	1,900.00	bags		-
	b. Sand, Washed	105.50	cu.m.		-
	c. Crushed Gravel, 3/4"	211.10	cu.m.		-
	Column Footing				
	d. Portland Cement, 40kg	64.00	bags		-
	e. Sand, Washed	3.50	cu.m.		-
	f. Crushed Gravel, 3/4"	7.10	cu.m.		-
	Wall Footing				
	g. Portland Cement, 40kg	179.00	bags		-
	h. Sand, Washed	10.30	cu.m.		-
	i. Crushed Gravel, 3/4"	19.90	cu.m.		-
	Column				
	j. Portland Cement, 40kg	62.00	bags		-
	k. Sand, Washed	3.50	cu.m.		-
	l. Crushed Gravel, 3/4"	6.90	cu.m.		-
	Lintel Beam				
	m. Portland Cement, 40kg	90.00	bags		-
	n. Sand, Washed	5.00	cu.m.		-
	o. Crushed Gravel, 3/4"	10.00	cu.m.		-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XVI. RETAINING WALL, PERIMETER FENCE AND GATE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 2. Reinforcing Steel Bars (including Tiewire)
a. Retaining Wall, Column Footing, Wall Footing, Column and Lintel Beam
Unit of Measurement: KGS.
Quantity: 16,150.10 KGS.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Bar Cutter				-
	b. Bar Bender				-
	c.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Retaining Wall				
	a. 10mmø x 6.0m Def Bar, Grade 40	5,328.27	kgs.		-
	b. 12mmø x 6.0m Def Bar, Grade 40	5,664.71	kgs.		-
	c. G.A. #16 G.I. Tiewire	258.00	kgs.		-
	Column Footing				
	d. 12mmø x 6.0m Def Bar, Grade 40	515.85	kgs.		-
	e. G.A. #16 G.I. Tiewire	14.00	kgs.		-
	Wall Footing				
	f. 10mmø x 6.0m Def Bar, Grade 40	677.78	kgs.		-
	g. 12mmø x 6.0m Def Bar, Grade 40	360.06	kgs.		-
	h. G.A. #16 G.I. Tiewire	21.00	kgs.		-
	Column				
	i. 10mmø x 6.0m Def Bar, Grade 40	660.80	kgs.		-
	j. 12mmø x 6.0m Def Bar, Grade 40	710.48	kgs.		-
	k. 16mmø x 6.0m Def Bar, Grade 40	318.33	kgs.		-
	l. G.A. #16 G.I. Tiewire	26.00	kgs.		-
	Lintel Beam				
	m. 10mmø x 6.0m Def Bar, Grade 40	835.38	kgs.		-
	n. 12mmø x 6.0m Def Bar, Grade 40	1,078.44	kgs.		-
	o. G.A. #16 G.I. Tiewire	36.00	kgs.		-
	p. Consumables (5% of Materials Cost)				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XVI. RETAINING WALL, PERIMETER FENCE AND GATE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 3. Formworks and Scaffoldings
a. Retaining Wall, Column Footing, Wall Footing, Column and Lintel Beam
Unit of Measurement: SQ.M.
Quantity: 1,604.74 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	Installation:				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Stripping:				
	a. Construction Foreman/Engineering Assistant				-
	b. Laborer				-
Sub-Total for A				Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a.				
Sub-Total for B				Php	-
Total (A+B)				Php	-
Labor and Equipment Unit Cost (C ÷ Qty)				Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Column Footing and Wall Footing				
	a. Marine Plywood , 1/2" x 4' x 8' (2 uses)	24.00	pcs.		-
	b. Rough Lumber, 2" x 3" x 12' (2 uses)	1297.00	bd.ft.		-
	c. Assorted Common Wire Nails	130.00	kgs.		-
	Column and Lintel Beam				
	d. Marine Plywood , 1/2" x 4' x 8' (2 uses)	59.00	pcs.		-
	e. Rough Lumber, 2" x 3" x 12' (2 uses)	2887.00	bd.ft.		-
	f. Assorted Common Wire Nails	289.00	kgs.		-
	Retaining Wall				
	g. Marine Plywood , 1/2" x 4' x 8' (2 uses)	197.00	pcs.		-
	h. Rough Lumber, 2" x 3" x 12' (2 uses)	3724.00	bd.ft.		-
	i. Assorted Common Wire Nails	223.00	kgs.		-
Sub-Total for E				Php	-
Material Unit Cost (E ÷ Qty)				Php	-
Estimated Direct Cost (D+F)				Php	-
Plus:					
Overhead, Contingencies & Miscellaneous (OCM)					-
Contractor's Profit (CP)					-
Value Added Tax (VAT) (5% of (G + H + I))			5%		-
Total Cost of Work Item				Php	-
Total Unit Cost (Total Cost of Work Item/Quantity)					-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XVI. RETAINING WALL, PERIMETER FENCE AND GATE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 4. Concrete Hollow Blocks
a. 150mm thk CHB, 350 psi. (include mortar and rebars)
Unit of Measurement: SQ.M.
Quantity: 252.63 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a. One Bagger Mixer b.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. CHB, 6" thk b. Cement, 40kg c. Sand, Washed d. 10mmø x 6.0m Def Bar, Grade 40 e. G.A. #16 G.I. Tiewire	3,158.00 257.00 21.30 132.16 12.00	pcs. bags cu.m. kgs. kgs.		- - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XVI. RETAINING WALL, PERIMETER FENCE AND GATE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 5. Concrete Finishes
a. Plain Cement Plaster Finish, 12mm thk
(Retaining Wall, CHB Wall including Column and Lintel Beam)
Unit of Measurement: SQ.M.
Quantity: 518.21 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Mason c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment a.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Cement, 40kg b. Sand, Fine	75.00 6.20	bags cu.m.		- -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XVI. RETAINING WALL, PERIMETER FENCE AND GATE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 6. Steel Works
a. Cyclone Wire on G.I. Pipe
Unit of Measurement: L.S.
Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman/Engineering Assistant				-
	b. Skilled Laborer				-
	c. Laborer				-
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	a. Welding Machine				-
	b. Bar Cutter				-
	c.				-
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cyclone Wire, 50mm x 50mm Opening, 3.4mmø x 6ft x 12m	32.00	rolls		-
	b. G.I. Pipe, 32mmø Sched 40 x 6m	191.00	pcs.		-
	c. G.I. Pipe End Cap	130.00	pcs.		-
	d. Flat Bar, 25mm x 3mm thk x 6m	454.00	pcs.		-
	e. Welding Rod	105.00	kgs.		-
	f. Rust Converter, 4L/gal	7.00	gals		-
	g. Red Oxide Metal Primer , 4L/gal	10.00	gals		-
	h. Paint Thinner, 4L/gal	3.00	gal		-
	i. Paint Brush, 2"	15.00	pcs.		-
	j. Paint Brush, 4"	15.00	pcs.		-
	k. Steel Brush	15.00	pcs.		-
	l. Consumable (5% of Materials Cost)				-
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION XVI. RETAINING WALL, PERIMETER FENCE AND GATE**

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
 Item No./Description: 6. Steel Works
 b. Gate (6000mmW x 1900mmH - 1 set; 1500mmW x 1900mmH)
 Unit of Measurement: L.S.
 Quantity: 1.00 L.S.

Designation		No. Person	No. of Days	Daily Rate	Amount	
A.	Labor					
	a. Construction Foreman/Engineering Assistant				-	
	b. Skilled Laborer				-	
	c. Laborer				-	
Sub-Total for A				Php	-	
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount	
B.	Equipment					
	a. Welding Machine				-	
	b. Bar Cutter				-	
	c.				-	
Sub-Total for B				Php	-	
C.	Total (A+B)				Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)				Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount	
E.	Materials					
	a. Tubular Bar, 75mm x 50mm x 4.5mm thk x 6m	5.00	pcs.		-	
	b. Flat Bar, 50mm x 6mm thk x 6m	7.00	pcs.		-	
	c. Square Bar, 12mm x 6m	28.00	pcs.		-	
	d. Plain Round Bar, 10mmø x 6m	3.00	pcs.		-	
	e. BI Threaded Rod, 10mmø - 0.5m	2.00	pcs.		-	
	f. Turnbuckle, 10mmø	2.00	pcs.		-	
	g. Plain Bar Stay Bolt, 19mmø x 6m	1.00	pc.		-	
	h. G.I. Pipe, 25mmø Sched 40 x 6m	1.00	pc.		-	
	i. Fabricated Steel Hinges, 7.5mm x 50mm thk	9.00	pcs.		-	
	j. Steel Plate Stiffener, 6mm thk	2.00	pcs.		-	
	k. Fabricated Barrel Bolt Gate Padlock, 20mmø	2.00	pcs.		-	
	l. Gate Padlock, Heavy Duty	2.00	pcs.		-	
	m. Welding Rod	10.00	kgs.		-	
	n. Rust Converter, 4L/gal	1.00	gal		-	
	o. Red Oxide Metal Primer , 4L/gal	4.00	gals		-	
	p. Paint Thinner, 4L/gal	1.00	gal		-	
	q. Paint Brush, 2"	3.00	pcs.		-	
	r. Paint Brush, 4"	3.00	pcs.		-	
	s. Steel Brush	3.00	pcs.		-	
	t. Consumable (5% of Materials Cost)				-	
Sub-Total for E				Php	-	
F.	Material Unit Cost (E ÷ Qty)				Php	-
G.	Estimated Direct Cost (D+F)				Php	-
	Plus:					
H.	Overhead, Contingencies & Miscellaneous (OCM)					-
I.	Contractor's Profit (CP)					-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%			-
K.	Total Cost of Work Item				Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)					-

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: **CONSTRUCTION OF BFAR-NCR REGIONAL FRESHWATER FISHERIES TECHNOLOGY OUTREACH STATION**
XVI. RETAINING WALL, PERIMETER FENCE AND GATE

Item of Work: B. CIVIL AND ARCHITECTURAL WORKS
Item No./Description: 7. Painting Works
a. Retaining Wall, CHB Wall including Column and Lintel Beam
Unit of Measurement: SQ.M.
Quantity: 518.21 SQ.M.

Designation		No. Person	No. of Days	Daily Rate	Amount
A.	Labor a. Construction Foreman/Engineering Assistant b. Skilled Laborer c. Laborer				- - -
	Sub-Total for A			Php	-
Name and Capacity		No. of Units	No. of Days	Daily Rate	Amount
B.	Equipment				
	Sub-Total for B			Php	-
C.	Total (A+B)			Php	-
D.	Labor and Equipment Unit Cost (C ÷ Qty)			Php	-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials a. Acrytex Primer, 4L/gal b. Acrytex Putty, 4L/gal c. Acrytex Reducer, 4L/gal d. Acrytex Topcoat Paint (2 Coats), 4L/gal e. Paint tray w/ Roller brush f. Paint Brush, 2" g. Paint Brush, 4" h. Other Consumables	21.00 52.00 16.00 41.00 20.00 20.00 20.00	gals gals gals gals pcs. pcs. pcs.		- - - - - - -
	Sub-Total for E			Php	-
F.	Material Unit Cost (E ÷ Qty)			Php	-
G.	Estimated Direct Cost (D+F)			Php	-
	Plus:				
H.	Overhead, Contingencies & Miscellaneous (OCM)				-
I.	Contractor's Profit (CP)				-
J.	Value Added Tax (VAT) (5% of (G + H + I))		5%		-
K.	Total Cost of Work Item			Php	-
L.	Total Unit Cost (Total Cost of Work Item/Quantity)				-