



**Roxas Port Development Project
Port of Roxas, Palawan
(DOTr-LFP-PLW-01-2020)**

BID DOCUMENTS
September 2022

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GLOSSARY OF TERMS, ABBREVIATIONS, AND ACRONYMS

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



**Invitation to Bid
for the**

**Roxas Port Development Project, Port of Roxas, Palawan
DOTr-LFP-PLW-01-2020
(Negotiated Procurement)**

1. The **Philippine Ports Authority PMO Palawan**, through the **Corporate Budget of the Authority for CY 2020** intends to apply the sum of **Php 14,282,875.06** being the Approved Budget for the Contract (ABC) to payments under the contract for **Roxas Port Development Project, Port of Roxas, Palawan**. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The **Philippine Ports Authority PMO Palawan** now invites bids for the above Procurement Project. Completion of the Works is required **210 Calendar Days**. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
3. Bidding will be conducted through open competitive bidding procedures using non-discretionary "*pass/fail*" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.
4. Interested bidders may obtain further information from **Philippine Ports Authority PMO Palawan Bids and Awards Committee** and inspect the Bidding Documents at the address given below from **8:00 A.M. to 5:00 P.M., Monday to Friday**.
5. A complete set of Bidding Documents may be acquired by interested bidders on *September 5 - 26, 2022* from given address and website/s below *and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of Php 25,000.00*. The Procuring Entity shall allow the bidder to present its proof of payment for the fees *presented in person*.
6. The **Philippine Ports Authority PMO Palawan Bids and Awards Committee** will hold a Pre-Negotiation Conference on *September 12, 2022; 2:00 P.M.* Conference Room, 2nd Floor, PPA Administrative Building, Port Area, Puerto Princesa City and/or through videoconferencing/webcasting *via Zoom*, which shall be open to prospective bidders.
7. Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below on or before *September 26, 2022; 9:00 A.M.* Late bids shall not be accepted.
8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB Clause 15**.

9. Bid opening shall be on *September 26, 2022; 9:30 A.M.* at the given address below Conference Room, 2nd Floor, PPA Administrative Building, Port Area, Puerto Princesa City. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

10. The **Philippine Ports Authority PMO Palawan Bids and Awards Committee** 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.

• **Required PCAB Registration (Minimum): SMALL B- Port, Harbor and Off-shore Engineering**

11. For further information, please refer to:

MARIZA O. NALLANA
Head Secretariat
PMO Palawan BAC
Port Area, Puerto Princesa City,
Telephone No.: (048) 433-0356 or (048) 716-6864
Email Address: pmopalawanbac@gmail.com

12. You may visit the following websites:

For downloading of Bidding Documents: www.ppa.com.ph
www.gppb.com.ph

September 5, 2022


JEMUEL B. APELLIDO
Chairperson
PPA PMO-Palawan BAC

Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, **Philippine Ports Authority PMO Palawan** invites Bids for the **Roxas Port Development Project, Port of Roxas, Palawan**, with Project Identification Number **DOTr-LFP-PLW-01-2020**.

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 **Philippine Ports Authority** through the source of funding as indicated below for **CY 2020** in the amount of **Php 14,282,875.06**.

2.2. The source of funding is:

a. **Corporate Operating Budget.**

3. Bidding Requirements

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

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

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

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

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

5. Eligible Bidders

5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.

5.2. The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the PSA’s CPI, except under conditions provided for in Section 23.4.2.4 of the 2016 revised IRR of RA No. 9184.

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

5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.

5.4. The Bidders shall comply with the eligibility criteria under Section

5.5. 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.

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

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address **Philippine Ports Authority PMO Palawan, Port Area, Puerto Princesa City, Palawan** and/or through videoconferencing/webcasting} as indicated in paragraph 6 of the IB.

9. Clarification and Amendment of Bidding Documents

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

10. Documents Comprising the Bid: Eligibility and Technical Components

10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.

10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.

- 10.3. A valid PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
 - 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.
 - 10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.
- 11. Documents Comprising the Bid: Financial Component**
- 11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.
 - 11.2. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
 - 11.3. For Foreign-funded procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.
- 12. Alternative Bids**
- Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic technical design as indicated in the drawings and specifications. Unless there is a value engineering clause in the **BDS**, alternative Bids shall not be accepted.
- 13. Bid Prices**
- All bid prices for the given scope of work in the Project as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as determined by the NEDA and approved by the GPPB pursuant to the revised Guidelines for Contract Price Escalation guidelines.
- 14. Bid and Payment Currencies**
- 14.1. Bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.
 - 14.2. *Payment of the contract price shall be made in:*
 - a. Philippine Pesos.
- 15. Bid Security**
- 15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.

- 15.2. The Bid and bid security shall be valid until **One Hundred Twenty (120) days from the date set for Bid Opening**. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

16. Sealing and Marking of Bids

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

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

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

17. Deadline for Submission of Bids

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

18. Opening and Preliminary Examination of Bids

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

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

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

19. Detailed Evaluation and Comparison of Bids

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

- 19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 16 shall be submitted for each contract (lot) separately.

- 19.3. In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

20. Post Qualification

Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall

submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS), and other appropriate licenses and permits required by law and stated in the **BDS**.

21. Signing of the Contract

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

Section III. Bid Data Sheet

Bid Data Sheet

ITB Clause																																																																						
5.2	For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be: <table><tr><th><u>Major Categories of Work</u></th><th><u>Unit of Measure</u></th><th><u>Required Quantity</u></th></tr><tr><td>1. ROCKWORKS</td><td></td><td></td></tr><tr><td>a. 500 kg./pc Armour rocks</td><td>cu.m.</td><td>285.00</td></tr><tr><td>b. 50-100 kg./pc. Core rocks</td><td>cu.m.</td><td>127.00</td></tr><tr><td>2. FILL MATERIALS</td><td>cu.m.</td><td>541.00</td></tr><tr><td>3. REINFORCED CONCRETE WORKS</td><td>cu.m.</td><td>59.00</td></tr><tr><td>4. PAVING WORKS (PCCP)</td><td>sq.m.</td><td>389.00</td></tr><tr><td>Including base course</td><td></td><td></td></tr><tr><td>5. CARGO SHED</td><td>sq.m.</td><td>83.00</td></tr></table>	<u>Major Categories of Work</u>	<u>Unit of Measure</u>	<u>Required Quantity</u>	1. ROCKWORKS			a. 500 kg./pc Armour rocks	cu.m.	285.00	b. 50-100 kg./pc. Core rocks	cu.m.	127.00	2. FILL MATERIALS	cu.m.	541.00	3. REINFORCED CONCRETE WORKS	cu.m.	59.00	4. PAVING WORKS (PCCP)	sq.m.	389.00	Including base course			5. CARGO SHED	sq.m.	83.00																																										
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10.3	For Joint Venture : Special PCAB License																																																																					
10.4	The key personnel must meet the required minimum years of experience set below: <table><tr><th><u>Key Personnel</u></th><th><u>General Experience</u></th><th><u>Relevant Experience</u></th></tr><tr><td>1) Project Manager</td><td>Infrastructure/Civil Works</td><td>Building Construction</td></tr><tr><td>2) Project Engineer</td><td>Infrastructure/Civil Works</td><td>Building Construction</td></tr><tr><td>3) Materials Engineer</td><td>Infrastructure/Civil Works</td><td>Building Construction</td></tr><tr><td>4) Safety and Health Officer</td><td>Infrastructure/Civil Works</td><td>Building Construction</td></tr><tr><td>5) Foreman</td><td>Infrastructure/Civil Works</td><td>Building Construction</td></tr></table> NOTE: Required Personnel minimum years of experiences: at least two (2) years of experience	<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>	1) Project Manager	Infrastructure/Civil Works	Building Construction	2) Project Engineer	Infrastructure/Civil Works	Building Construction	3) Materials Engineer	Infrastructure/Civil Works	Building Construction	4) Safety and Health Officer	Infrastructure/Civil Works	Building Construction	5) Foreman	Infrastructure/Civil Works	Building Construction																																																			
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10.5	The minimum major equipment requirements are the following: <table><tr><th><u>Equipment</u></th><th><u>Capacity</u></th><th><u>Number of Units</u></th></tr><tr><td>Crawler crane, owned/leased</td><td>30T, minimum</td><td>1 unit</td></tr><tr><td>Clamshell, owned/leased</td><td>N/A</td><td>1 unit</td></tr><tr><td>Concrete cutter, owned/leased</td><td>N/A</td><td>1 unit</td></tr><tr><td>Concrete bucket, owned/leased</td><td>N/A</td><td>1 unit</td></tr><tr><td>Concrete mixer, owned/leased</td><td>1 bagger, minimum</td><td>1 unit</td></tr><tr><td>Concrete vibrator, owned/leased</td><td>3.5 hp, minimum</td><td>1 unit</td></tr><tr><td>Bar cutter, electric, owned/leased</td><td>25mm dia.min.</td><td>1 unit</td></tr><tr><td>Bar bender, electric, owned/leased</td><td>25mm dia.min.</td><td>1 unit</td></tr><tr><td>Dump truck, owned/leased</td><td>8 cu.m. minimum</td><td>1 unit</td></tr><tr><td>Water truck with pump, owned/leased</td><td>1,000 gal, minimum</td><td>1 unit</td></tr><tr><td>Jackhammer, owned/leased</td><td>N/A</td><td>1 unit</td></tr><tr><td>Air compressor, owned/leased</td><td>250 cfm, minimum</td><td>1 unit</td></tr><tr><td>Plate compactor, owned/leased</td><td>5 hp, minimum</td><td>1 unit</td></tr><tr><td>Oxy/acetylene cutting outfit, owned/leased</td><td>N/A</td><td>1 unit</td></tr><tr><td>Road roller, owned/leased</td><td>12.05T min., vibratory</td><td>1 unit</td></tr><tr><td>Road grader, owned/leased</td><td>125hp, minimum</td><td>1 unit</td></tr><tr><td>Payloader, owned/leased</td><td>80 hp, minimum</td><td>1 unit</td></tr><tr><td>Backhoe, owned/leased</td><td>0.40 cu.m., 94.30hp, min.</td><td>1 unit</td></tr><tr><td>Concrete screeder, owned/leased</td><td>N/A</td><td>1 unit</td></tr><tr><td>Transit mixer, owned/leased</td><td>5-6 cu.m. cap, min.</td><td>1 unit</td></tr><tr><td>Concrete batching plant, owned/leased</td><td>30 cu.m.</td><td>1 unit</td></tr><tr><td>Cargo truck, owned/leased</td><td>5T, minimum</td><td>1 unit</td></tr></table>	<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>	Crawler crane, owned/leased	30T, minimum	1 unit	Clamshell, owned/leased	N/A	1 unit	Concrete cutter, owned/leased	N/A	1 unit	Concrete bucket, owned/leased	N/A	1 unit	Concrete mixer, owned/leased	1 bagger, minimum	1 unit	Concrete vibrator, owned/leased	3.5 hp, minimum	1 unit	Bar cutter, electric, owned/leased	25mm dia.min.	1 unit	Bar bender, electric, owned/leased	25mm dia.min.	1 unit	Dump truck, owned/leased	8 cu.m. minimum	1 unit	Water truck with pump, owned/leased	1,000 gal, minimum	1 unit	Jackhammer, owned/leased	N/A	1 unit	Air compressor, owned/leased	250 cfm, minimum	1 unit	Plate compactor, owned/leased	5 hp, minimum	1 unit	Oxy/acetylene cutting outfit, owned/leased	N/A	1 unit	Road roller, owned/leased	12.05T min., vibratory	1 unit	Road grader, owned/leased	125hp, minimum	1 unit	Payloader, owned/leased	80 hp, minimum	1 unit	Backhoe, owned/leased	0.40 cu.m., 94.30hp, min.	1 unit	Concrete screeder, owned/leased	N/A	1 unit	Transit mixer, owned/leased	5-6 cu.m. cap, min.	1 unit	Concrete batching plant, owned/leased	30 cu.m.	1 unit	Cargo truck, owned/leased	5T, minimum	1 unit
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Clamshell, owned/leased	N/A	1 unit																																																																				
Concrete cutter, owned/leased	N/A	1 unit																																																																				
Concrete bucket, owned/leased	N/A	1 unit																																																																				
Concrete mixer, owned/leased	1 bagger, minimum	1 unit																																																																				
Concrete vibrator, owned/leased	3.5 hp, minimum	1 unit																																																																				
Bar cutter, electric, owned/leased	25mm dia.min.	1 unit																																																																				
Bar bender, electric, owned/leased	25mm dia.min.	1 unit																																																																				
Dump truck, owned/leased	8 cu.m. minimum	1 unit																																																																				
Water truck with pump, owned/leased	1,000 gal, minimum	1 unit																																																																				
Jackhammer, owned/leased	N/A	1 unit																																																																				
Air compressor, owned/leased	250 cfm, minimum	1 unit																																																																				
Plate compactor, owned/leased	5 hp, minimum	1 unit																																																																				
Oxy/acetylene cutting outfit, owned/leased	N/A	1 unit																																																																				
Road roller, owned/leased	12.05T min., vibratory	1 unit																																																																				
Road grader, owned/leased	125hp, minimum	1 unit																																																																				
Payloader, owned/leased	80 hp, minimum	1 unit																																																																				
Backhoe, owned/leased	0.40 cu.m., 94.30hp, min.	1 unit																																																																				
Concrete screeder, owned/leased	N/A	1 unit																																																																				
Transit mixer, owned/leased	5-6 cu.m. cap, min.	1 unit																																																																				
Concrete batching plant, owned/leased	30 cu.m.	1 unit																																																																				
Cargo truck, owned/leased	5T, minimum	1 unit																																																																				

12	Value Engineering Clause: Not Allowed
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 1,428,287.51, 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 4,284,862.52 if bid security is in Surety Bond.
16	Each Bidder shall submit One (1) original and Four (4) copies of their Technical and Financial Bid, properly book-bound with hard/soft cover. Screw-bound, ring-bound and combo-bound documents are not acceptable. Failure to comply with these requirements shall be a ground for disqualification.
19.2	Partial bid is not allowed
20	Other appropriate licenses and permits required: None
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	Sectional completion: None
4.1	<i>[Specify the schedule of delivery of the possession of the site to the Contractor, whether full or in part.]</i>
6	The site investigation reports are: None
5.1	Performance bond from PPA-Accredited surety and insurance company
7.2	Semi-permanent structures: Five (5) years Buildings of types 1, 2, and 3 as classified under the National Building Code of the Philippines, concrete/asphalt roads, concrete river control, drainage, irrigation lined canals, river landing, deep wells, rock causeway, pedestrian overpass, and other similar semi-permanent structures
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 15 days of delivery of the Notice of Award.
11.2	The amount to be withheld for late submission of an updated Program of Work is _____.
13	No advance payments or mobilization fees shall, as a rule, be extended or paid to the winning bidder per DOTr memorandum dated July 10, 2018.
14	No further instruction
15.1	The date by which operating and maintenance manuals are required is _____. The date by which "as built" drawings are required upon submission of Final Billing.
15.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required is _____.

Section VI. Specifications

TECHNICAL SPECIFICATIONS

I. SITE WORKS

1.0 MOBILIZATION & DEMOBILIZATION

1.1.1 GENERAL

Work under this Contract shall be in accordance with the terms and conditions stipulated in the Conditions of Contract and Section 1 "General Requirements" of these Specifications and shall apply to this Section whether herein referred to or not.

1.1.2 SCOPE OF WORK

This Section includes mobilization, demobilization, assembly and disassembly of equipment/plants including incidentals necessary to complete the work.

1.1.3 MOBILIZATION

- a) The Contractor shall mobilize and put into operation all equipment and plants required to undertake the Contract.
- b) Mobilization shall include the transferring to the job-sites of all equipment, plants, supplies and materials, personnel, and all items necessary for the execution and completion of the work, and shall also include the setting up of all equipment, instruments and all other plants until rendered operable, subject to the confirmation of the Engineer.
- c) Sufficient supply of spares for the equipment and plants shall be carried on-site. Equipment/plants encountering breakdowns must be repaired on site by the most expeditious method possible at no cost to the Procuring Entity. In the event that the equipment/plants call for major repair works that cannot be undertaken at the site, the Contractor shall replace such equipment/plants with equal or better performance capacity at no additional mobilization costs to the Procuring Entity and the Contractor shall not be entitled to any time extension.

1.1.4 DEMOBILIZATION

Demobilization upon request of the Contractor and approved by the Engineer, shall include the dismantling, preparation and loading for removal and shipment of all Contractor's plant, equipment and personnel at each site after completion of the works.

2.0 BILLBOARDS / BARRICADES / SIGNAGES AND OTHER SAFETY DEVICES

- a. The Contractor shall provide two (2) sets of project billboard (format to be supplied by PPA) and shall be posted at the project site during the whole duration of the project. Sufficient and appropriate barricades / warning signages shall be provided to ensure safety of workers as well as the public. The contractor shall also strictly follow the health protocols as required by the health authorities as well as the PPA Engineering Circular No 01-2020 dated 15, May, 2020, *Safety Guidelines for the Implementation of all PPA (CAPEX & RM) and DOTr, Tourism and Social Reform Projects During the COVID-19 Public Health Crisis*.

3.0 CONSTRUCTION PHOTOGRAPHS

- b. Provide record progress photographs taken at a fixed point and angle as, 1/12 when and where directed by the Engineer at intervals of not more than ten (10) days. The photographs shall be sufficient in number and location to record the exact progress of works. The Contractor shall provide the Engineer all the photographs stored in CDs- properly labeled. Billing photographs shall be in 4R size with corresponding billboard indicating the name of the project and location, bill number, item number, name of the person taking the photograph, date taken and the on-going activity.

4.0 MONTHLY PROGRESS REPORT

- a) The Contractor shall maintain a daily log describing the important events pertaining to the Works, the working hours, the number of laborers employed, effective operation time of equipment, overtime hours, delays due to meteorological and maritime conditions, lack of labor, materials or equipment, progress made including those for dredging and reclamation works, and instructions, notifications and recommendations made by the Engineer.

5.0 AS-BUILT DRAWINGS AND FINAL CONSTRUCTION REPORT

Within fifteen (15) calendar days after the issuance of the Taking Over Certificate, the Contractor shall prepare an as-built drawings and a final construction report as draft. And within fifteen (15) calendar days after the issuance of the Taking Over Certificate, the Contractor shall submit the Final Construction Report and Final As-Built drawings.

II. BACK-UP AREA WITH STAIRLANDING

1.0 CONCRETE WORKS

1.1. GENERAL

All works falling under this category shall include reinforced concrete for all kinds and parts of any reinforced concrete structure.

1.2. MATERIALS

a. Cement

Cement used shall be Type I Portland conforming to the requirements of the latest revision of ASTM C 150 "Standard Specifications for Portland Cement".

b. Coarse Aggregates

Coarse Aggregates shall be washed, well graded, hard pieces of gravel, crushed gravel or rock conforming to the requirements of ASTM C 33 "Standard Specification for Concrete Aggregates".

c. Fine Aggregates

Fine Aggregates shall be washed sand, stone screenings or other inert materials of same characteristics, or any combination thereof composed clean, hard, strong, uncoated grains and free from injurious

amount of dust, lumps of clay, shale, alkali, and organic matter. It shall conform to the requirements of ASTM C33 "Standard Specifications for Concrete Aggregates". Beach sand shall not be used unless approved by the Engineer.

d. Admixtures

Unless otherwise required by field conditions admixtures may be used subject to the expressed approval of the Engineer. The cost thereof shall be considered as already included in the unit cost bid of the Contractor for the concrete.

1.3. STORAGE OF MATERIALS

- a. Cement shall, be stockpiled as closely as possible, in weatherproof storage sheds, stacks suitably elevated above ground to prevent cement absorption of moisture.
- b. Aggregates shall be placed in stockpile in a manner preventing segregation thereof and contamination with foreign materials.
- c. Reinforcing steel bars shall be stored properly, covered and protected from humidity to prevent rusting and contamination with oil, dirt or other objectionable matters

1.4. DESIGNED STRENGTH OF CONCRETE

Concrete for Stair Landing, Mooring block and R.C. Curb and PCCP shall develop a minimum 28-day compressive cylinder strength of 3,500 psi. unless otherwise indicated in the drawings.

1.5. TRIAL BATCH FOR CONCRETE

Thirty (30) calendar days before the start of concreting works, the Contractor shall submit design mixes and the corresponding test result made on sample thereof. Sampling and testing shall be in accordance with the ASTM Standard procedures for sampling and testing, for the particular design strength(s) required.

The particulars of the mix such as the slump and the proportionate weights of cement, saturated surface dry aggregates and water used shall be stated. Test results shall show 28-day strength(s) fifteen (15%) percent higher than the ultimate strength(s) required.

The design mix for concrete to be used shall be submitted together with at least three (3) standard cylinder samples for approval at least one (1) month prior to the start of each concreting schedule. Such samples shall be prepared in the presence of the Engineer.

Standard laboratory strength test for the 7, 14 and 28 days periods shall be taken to all concrete samples in addition to routine field tests, at cost to the Contractor. Only design mixes represented by test proving the required strength for 7, 14 and 28 days tests shall be allowed.

The cost of sampling, handling and transporting samples from jobsite to the laboratory and the cost of subsequent tests made until the desired mix is attained shall be for the account of the Contractor.

1.6. CONCRETE PROPORTION AND CONSISTENCY

Concrete proportion should produce mix consistencies that will work readily into angles and corners of the forms and around reinforcements irrespective of the method of placing employed, without permitting the materials to segregate or excess water to collect on the surface of the concrete and with separated individual particles of aggregates showing coating of mortar with proportionate amount of sand. The total aggregate in the proportion used shall be such that when sieved, the weight passing the No. 4 standard sieve shall be thirty percent (30%) of the total.

The methods used for measuring materials going into the concrete mix shall permit easy checking and control of proportions at any time during the work.

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

Structural Element	Slump for Vibrated Concrete	
	Minimum	Maximum
Pavement Concrete	25 mm	50 mm
Pre-cast Concrete	50 mm	70 mm
Lean Concrete	100 mm	200 mm
All other Concrete	50 mm	90 mm

1.7. MIXING OF CONCRETE

All concrete used shall be machine-mixed at the site. Each batch shall be mixed at the mixer's design speed, for at least 1-112 minutes after all concrete materials are simultaneously placed in the mixer. The ideal rotation speed of the mixer shall be between 14 and 20 rpm.

All mix contents of the mixer shall be thoroughly removed before any succeeding batch is placed.

The materials for the first batch shall contain sufficiently excess cement, sand and water to coat the inside walls of the mixer without reducing the required mortar content of the mix.

The mixer shall be provided with devices for accurately measuring and controlling the amount of water used in each batch and for automatically recording the number of revolutions of the mixer.

Hand mixing of concrete will only be allowed in case of mixer breakdown, in which case it shall be stopped as soon as pouring for the particular section is completed, or at a construction joint as directed by the Engineer.

Re-tempering or remixing of partially hardened concrete with the addition of water will not be permitted.

1.8 PLACING OF CONCRETE

- 1) Concrete shall be placed in the presence of the Engineer only after the

forms, reinforcing bars and other spaces to receive the concrete have been inspected and approved by him.

- 2) Concrete shall be placed only when wind and weather conditions will allow proper placement and curing of the concrete. Notice of any concreting operations shall be served to the Engineer at least three (3) days ahead of each schedule.
- 3) Mixed concrete shall be deposited in its final position within a practicable time. Each succeeding fresh deposit for particular structural member shall be placed at a practicable rate to prevent cold joints. Each successive fresh deposit of concrete shall be vibrated vertically at uniformly spaced points and levels, of such duration and intensity to compact the concrete thoroughly but shall be discontinued the moment segregation of materials is noticed.
- 4) Where concreting operations involve a fall more than 1.50 meters (4.92 feet), the fresh concrete shall be poured through approved sheet metal conduit or pipes. The pipes shall be kept full of concrete and its lower end kept below the surface of concrete throughout, the, pouring operations.
- 5) Deposition of concrete shall be in such a way as to prevent segregation of the materials and the displacement of the reinforcement. Placing shall be done preferably with the use of buggies, buckets or wheel-borrows. Troughs, conveyors and pipes and the manner of use of each one shall be with the expressed permission of the Engineer.
- 6) Each layer of concrete shall be placed approximately normal as possible in uniform layers not exceeding 0.30 meter, unless otherwise ordered. The rate of placing concrete in the forms shall preferably be 0.025 meter (0.082 feet) vertical rise per minute.
- 7) Concrete spacer of 3" thickness shall be provided to maintain the concrete covering of steel reinforcements.
- 8) Concrete epoxy shall be provided to have a complete bond between the old concrete and the new one.

1.9 FORMS AND FALSEWORK

All forms and false work to be used in the work must be designed, and constructed by the Contractor for rigidity and adequacy for carrying the loads of the fresh concrete and/or additional superimposed construction loads. The Authority may from time to time verify the adequacy and safety of such temporary works and may require the Contractor to submit detailed designed drawings of forms and falseworks proposed to be used. Approval of such drawings or design of forms, however, shall not relieve the Contractor of his liability on resulting imperfections or damages to the finished concrete, or other damages which may directly result therefrom.

Forms may be re-used but shall be scrapped by a wire brush of all clinging mortar. Bulges should be planed and realigned prior to its use.

Prior to placing concrete form surfaces should be oiled for easy form removal. However, the oil coating should not be so thick as to stain and soften the concrete surface. Oil coatings should be applied before rebars are placed.

1.10. CURING AND WATER PROOFING

All concrete shall be cured for at least 14 days after the date of placing in accordance with the approved and accepted methods.

1.11. FINISHING OF CONCRETE SURFACES

Concrete surfaces shall conform accurately to the form, alignment, grades and sections shown in the drawings or as prescribed by the Engineer. It shall be free from bulges, ridges, honeycombing or roughness of any kind and shall be of a reasonably smooth wood float finish.

1.12. ARCHITECTURAL FINISH

All exposed concrete exterior surfaces shall be given an architectural finish as directed by the Engineer.

1.13. PLACING OF REINFORCEMENT

Metal reinforcement shall be placed as accurately detailed on drawings and properly secured by approved means.

All reinforcing steel shall be cleaned of all rust or scale and deleterious materials which tend to destroy the bond between the concrete and the steel. Concrete covering must be strictly observed.

For minimum concrete cover, refer to General Notes of the Plan.

1.14. REINFORCING BAR SPLICES

Generally, splice/s of reinforcement at points of maximum stress especially in slabs, beams and girders shall be avoided. Such splice/s may however be approved by the Engineer in writing provided the lap if bonded or butt welded is sufficient to transfer tensile stress between bars by at least 125 % of the specified yield strength of the reinforcing bar. For adjacent bars splices shall staggered.

1.15. TEST ON CONCRETE

Test on concrete shall be in accordance with the following:

Concrete samples for tests shall be secured and molded in accordance With ASTM C172 – " Method of sampling Concrete", and ASTM C31 – "Method of making Curing, Concrete Compression and Flexure Test specimens in the fields".

Strength tests on samples shall be made in accordance with ASTM C39 "Standard Method of Test for Compressive Strength of Molded Concrete Cylinder".

Not less than four (4) cylindrical specimens shall be made for each test for which at least two (2) shall be reserved for 28 –day test. Not less than one (1) test shall be made for every fifty (50) cubic meters of concrete but in no case less than on (1) test for each day's concreting.

Samples shall be taken by the Contractor under the supervision of the Engineer; and shall be delivered as soon as practicable for testing, at his expense, to the designated laboratories.

The average strength of test samples representing any definite class of concrete used as well as the average of any five (5) consecutive strength test representing the class of concrete shall be equal to or greater than the specified strength and not more than one (1) strength test in ten (10) shall have an average value less than 90% of the remaining work, or in the procedure of curing the concrete.

10.16. FIELD TESTS

Field Tests as may deem necessary to check on the quantity of the materials and mixtures and the manner of construction employed shall be conducted by the Project Engineer assigned to the project. And when such tests result to values less than that tolerated by standards set in applicable provisions of the ASTM Specifications referred herein, or contrary to accepted good Engineering practice, the Contractor shall comply to any instructions given by the Project Engineer to upgrade the materials used and method of construction employed.

2.0. MOORING SYSTEMS

2.1. SCOPE OF WORK

1. The work includes furnishing of all labor, materials and equipment to complete the installation of mooring cleats.
2. Work shall include the supply, transport, handling, storage and installation of mooring cleats in the newly constructed back-up area.
3. The Contractor shall furnish and install the necessary fittings for a complete job as shown on the drawings and/ or as specified. Supplementary parts necessary to complete and install each item of works shall be included whether or not shown or specified. The Contractor shall furnish to relevant trades all anchors, fastenings. Inserts, fittings, fixtures or the like to be installed on or required for securing the works. The Contractor shall submit shop drawings of all fitting works prior to placing orders and commencement of any fabrication.

2.2. MOORING SYSTEM

1. Designated load capacity of mooring bollards shall be as shown on the drawings, and shall refer to the safe working load. For this project, 5T Mooring Cleat shall be installed. The cleats shall be capable of withstanding a proof test load of 1.5 times the safe working load.

2.3. MATERIAL REQUIREMENTS

1. Mooring bollards shall be of the dimensions, weight, capacities and design in accordance with shop drawing approved by the Engineer and shall be fabricated by approved manufacturers with cast steel conforming to the following requirements or approved equivalent.

The size of the bolts, nuts and washers shall be in accordance with the specifications of the manufacturer. However, the length of the bolts shall be as indicated on the drawings. The anchor

plate shall be connected the holding down bolt with 12.5 mm weld, as show on the drawings. All bolts, nuts, washers, etc. that are exposed shall be galvanized to the satisfaction of the Engineer. Provide lead cover for exposed threads of galvanized anchor bolts. Samples of the bolts, nuts, washers and anchor plates shall be submitted to the Engineer for approval before being used in the works.

- a.) The upper parts of cleats not embedded in concrete shall be painted. The surface shall be cleaned thoroughly by wire brush or other means prior to painting to remove rust or any other contamination which may interfere with bond of paint to metal. The exposed surface shall be which may interfere with bond of paint to metal. The exposed surface shall be coated with rust proof paint and finishing paint, which shall be coal-tar epoxy of 120 micron thickness in accordance with JIS K5623 or the approved standard.

b.) Alternative

The Contractor can submit to the Engineer's approval bollards different from these specifications but with the capacities indicated in the drawings.

- c.) Concrete foundations/base of bollards shall conform to the requirements of Section 6, "Concrete Works."

d.) Visual Inspection

All cleats delivered to site shall be inspected by the Engineer for any signs of flaws or defects inimical to usage.

e.) Mill Test Certificates

Two (2) copies of mill test reports shall be submitted certifying that materials meet the specified standards.

f.) Tests and Inspection

Inspection of all materials and methods of fabrication shall be carried out by the Contractor. However, the Engineer reserves the right to inspect all facilities at any time during the manufacture to ensure that the materials and workmanship are in accordance with the specifications and the best workmanship.

3.0 REVETMENT/SLOPE PROTECTION

3.1. SCOPE OF WORK

This Specification covers the construction of all revetments for the Project. The works to be carried out shall be, but not limited to the following:

1. Supply and laying of erosion protection mat (filter fabric) as shown in the drawings. Refer to Section 3.8 "Reclamation" of these Specifications.
2. Supply and laying of core rocks as shown in the drawings.
3. Supply and laying of secondary rocks as shown in the drawings.
4. Supply and laying of armour rock as shown in the drawings.
5. Casting of reinforced concrete curbs as shown in the drawings.

3.2. SURVEY AND SETTING OUT

1. Topographic/Hydrographic Surveys: Prior to commencement of the Work the Contractor shall conduct a topographic/hydrographic survey in conjunction with the Engineer instructions. This survey shall form the basis for future quantity measurements.
2. The Contractor shall set out Works and shall be solely responsible for accuracy of such setting out. Prior to placement of any materials, the Contractor shall establish visible construction markers to clearly define horizontal limits of Works.

3.3. MATERIAL REQUIREMENTS

1. Type of Revetment (as shown in the drawings).
2. Concrete curb shall be fabricated in accordance with Section 3.2 Concrete Works. Use $f_c' = [24] \text{ MPa}$ or 3,500 psi
3. The weight of individual pieces may exceed the maximum specified in the drawings by up to 25 percent.
4. Rock works shall be in accordance with Section 3.4, "Causeway."

3.4. EXECUTION

1. Revetments may be constructed by any method acceptable to the Engineer. Prior to start of work, the Contractor shall submit his method and sequence of construction for approval to the Engineer. The Engineer's approval of the method and sequence of construction shall not release the Contractor from the responsibility to achieve the satisfactory implementation of the Work.
2. Core rocks shall be placed as uniformly as possible by controlled dumping or by other means acceptable to the Engineer.
3. Armour rocks and secondary rocks where required or as indicated in the Drawings shall be placed individually by a crane equipped with a suitable bucket or by other means acceptable to the Engineer.

4. Permissible Tolerance

a. Core Rock:

Alignment : plus or minus 0.30 m
Elevation : plus 0.20 m

b. Armour Rock:

Alignment : plus or minus 0.30 m
Elevation : plus 0.20 m c.

Reinforced Concrete Curb

Alignment : plus or minus 0.05 m
Elevation : plus 0.05 m

3.5. QUARRY SITE AND ROCK QUANTITY

1. It is the Contractor's responsibility to make necessary surveys / investigations on quarry sites applicable to the Works, taking into consideration the nature of the rock works required under the Contract such as required quality, total quantity and daily required quantity, transportation method and route etc.,
2. The Contractor shall submit data on characteristics of proposed quarry sites together with the location of sites, test results of their products and samples for the approval of the Engineer.
3. When the Contractor intends to operate a quarry for the Works, the Contractor shall take all the responsibilities in connection with its operation including, but not limited to, obtaining all necessary permits and approvals, payment of safety measures or like (if any), provisions and maintenance of safety measures and temporary access roads, all of private and public roads and temporary jetties to be used to transport quarried materials and the compliance with all regulations etc. required by the authorities having jurisdiction over any part of the operation.

Should any explosive be used in the quarry operations, the Contractor shall be responsible to meet laws and regulations, wherever applicable, established by the Local Government and Central Government Department concerned.

4. Despite the Engineer's previous approval of the natural rock and borrow pits, the Engineer reserves the right to suspend any operation in connection with the rock, if, in its opinion, such rock is not suitable for the work. In such case, the Contractor shall comply with the Engineer's instructions.

3.6. MEASUREMENT AND PAYMENT

1. Quantities of core rock, rubble, secondary rock, armour rock and rock fragments to be paid for shall each be measured in cubic meters. The volumes to be paid for shall be measured by taking cross-sections of the sea bed on the site of work at 10 meter intervals or closer, if necessary, immediately before placing the rock. The volumes of the different classes of rock shall then be computed based on the neat lines and elevations shown on the drawings and on the foregoing data, with probable settlement as shown in the drawings.
2. Unless otherwise directed by the Engineer, measurement for settlement shall be done by providing a 28mm diameter x 6.0m round bar calibrated rod attached or welded to the center of a one (1) x one (1) m steel plate at 6mm thick. Measuring device shall be installed at 20.0m interval prior to laying of 1st stage rock.
3. Concrete works for reinforced concrete curb shall be measured and paid for by the length in linear meters of each type of curb along its front face at the finished grade elevation. Reinforcing steel bars for R.C. curb shall be measured in accordance with Section 3.2, "Concrete Works".

4.0 RECLAMATION AND FILL

4.1 SCOPE OF WORK

The area to be reclaimed shall be as indicated on the Drawings.

The work includes furnishing of all labor, materials and equipment required to complete/finish the reclamation and filling the area in accordance with the Drawings and the Specifications.

The following major items of work are included:

1. Supply and fill of suitable materials to places required to form the land reclamation areas as shown in the drawings.
 - a. Compaction of fill materials.
 - b. Supply and placing of filter fabric.
2. The work may also include the construction of temporary dike or structure to enclose the reclamation material before the completion of a permanent waterfront bulkhead.

The Contractor shall include in his unit prices allowances to cover all risks for any contingencies, except noted otherwise, that may arise during the execution of the works.

4.2. GENERAL REQUIREMENTS

The Contractor shall not commence filling any area until that area has been surveyed by the Contractor and the survey results are accepted by the Engineer.

The Contractor shall set out Works and shall be solely responsible for accuracy of such setting out. Prior to placement of such setting out the Contractor shall establish visible construction markers to clearly define horizontal limits of Works.

The Contractor shall keep all pavements and areas adjacent to and leading to/from the Site, clean and free from mud, dirt and debris.

The Contractor shall not interfere with shipping and navigation or other traffic during execution of the Works.

4.3. MATERIAL REQUIREMENTS

1. Filling Materials

a. General

All sources of filling materials shall be approved by the Engineer.

Appropriate quantities of sample of all materials to be used in the Works shall be submitted for acceptance and approval by the Engineer thirty (30) days before the commencement of work.

General filling shall consist of approved material from approved sources of suitable grading obtained from excavation, quarries or borrow pits, without excess fines, clay or silt, free from vegetation and organic matter.

Sample of approved materials shall be kept/stored in the field for ready reference/comparison of the delivered materials.

The Contractor shall insure that adequate quantities of required materials that comply with the specifications and quality approved by the engineer are available at all times.

b. Fill Materials other than Dredged Materials

Fill materials for reclamation purposes other than dredged materials shall be pit sand, quarry run, gravel or mine tailings. The fill material shall be of the same quality or better, as approved by the Engineer and called for in dredged material specification.

d. Types of Filling Materials

1) Selected Fill Materials

The material shall not have high organic content and shall meet the following requirements:

- (i) Not more than 10 percent by weight shall pass the No. 200 sieve (75 microns).
- (ii) Maximum particles size shall not exceed 75 mm.
- (iii) The fill materials shall be capable of being compacted in the manner and to the density of not less than 95%.
- (iv) The material shall have a plasticity index of not more than 6 as determined by AASHTO T 90.

2) Sand and Gravel Fill:

The materials shall be composed of 50% sand and 50% gravel and shall be free from rocks, wood, scrap, vegetables, and refuse. The materials shall not have organic content and the maximum particle size shall not exceed 100mm. Source of materials shall be river or mountain quarry.

4.4. EXECUTION

1. Reclamation and Fill

a. General: The Contractor shall be responsible for all ancillary earthworks that are necessary for the reception of the fill material and including, all spout handling, temporary dike or shoring construction where necessary, temporary protection to dikes in the sea and drainage of excess water.

The arrangements of these ancillary earthworks shall be laid out in consultation with the Engineer and to the Engineer's satisfaction and care shall be taken to minimize the loss of fill.

b. Replacement, backfilling and reclamation may be done by any method acceptable to the Engineer. Prior to start of Work, the Contractor shall submit his method and sequence of performing the works to the Engineer for approval. However, the Engineer's approval of the method and sequence of construction shall not release the Contractor from the responsibility for the adequacy of labor and equipment.

c. The Engineer shall approve the type of material to be used as fill prior to its placement. If the material is rejected, such material shall be deposited into areas designated or as directed by the Engineer.

d. When suction dredges are used, discharge pipework shall be arranged in conjunction with the Engineer's instructions and shall be such that by means of operating valves, material can be deposited to several places without altering the pipework or interrupting dredging. Where necessary vehicle overpasses shall be constructed by the Contractor.

e. Reclamation of fill material shall be placed in horizontal layers not exceeding **200mm (8 inches)**, loose measurement, and shall

be compacted as specified before the next layer is placed. Effective spreading equipment shall be used on each lift to obtain uniform thickness prior to compacting. As the compaction of each layer progresses, continuous leveling and manipulating will be required to assure uniform density. Water shall be added or removed, if necessary, in order to obtain the required density. Removal of water shall be accomplished through aeration by plowing, blading, dicing, or other methods satisfactory to the Engineer.

Even though the thickness of layers is limited as provided above, the placing of individual rocks and boulders greater than 600 mm in diameter will be permitted provided that when placed, they do not exceed 1200mm (48 inches) in height and provided they are carefully distributed, with the interstices filled with finer material to form a dense and compact mass.

Each layer shall be leveled and smoothed with suitable leveling equipment and by distribution of spalls and finer fragments of earth. Lifts of material containing more than 25 mass percent of rock larger than 150mm in greatest dimension shall not be constructed above an elevation 300mm (12 inches) below the finished subgrade. The balance of the reclamation work shall be exceeding 200mm (8 inches) in loose thickness and compacted as specified for embankments.

Dumping and rolling areas shall be kept separate, and no lift shall be covered by another until the necessary compaction is compacted.

Hauling and leveling equipment shall be so routed and distributed over each layer of the fill in such a manner as to make use of compaction effort afforded thereby and to minimize rutting and uneven compaction.

f. Field Density tests to determine the percent of compaction of the material shall be conducted at elevation + 1.60 from MLLW. Compaction of each layer thereafter shall continue until a field density of at least 98 percent of the maximum dry density in accordance with AASHTO T/180. Method D has been achieved. In place density determination shall be made in accordance with AASHTO T191.

g. Permissible Tolerance

Elevation: plus 5 cm

III. CONSTRUCTION OF CARGO SHED

1.0 SURVEY AND LAYOUT WORK

1.2. General Requirements

- a) Survey work under this Section shall be under direct control and continuous supervision of a registered Civil/Geodetic Engineer or Licensed Surveyor; qualified and experienced in type of work herein required; retained and paid by Contractor as part of work under this Contract.
- b) Survey calculations and drawings shall be developed as necessary for work required.

Following herein are items which the Contractor shall provide prior to commencement of and during construction operations at premises for work under this Contract.

- a) Establishment in the field of a building column/grid reference system; and boundary or primary perimeter lines of buildings and various other structures included under this Contract.
- b) Utility entrance points at perimeters of buildings or other structures or areas as applicable.
- c) Establishment and control of floor and other structures; and finish grades or areas, as applicable.

2.0 EXCAVATION AND BACKFILLING FOR BUILDINGS

2.1. General Provisions

- a) Excavated materials required and approved for backfill shall be stockpiled in areas approved by the Engineer.
- b) Remove all unsuitable or excess materials from the site.
- c) Each phase of excavation and backfilling work shall be approved by the Engineer as completed prior to removing earthwork equipment from the site or prior to proceeding with subsequent operations which cover or disturb completed phases of works

3.0. EXCAVATION

- a) General: The excavation shall conform to the dimensions and elevations indicated for each building and structure, except as specified hereinafter, and shall extend a sufficient distance from walls and footings to allow for placing and removal of forms, installation of services and for inspection, except where the concrete for walls and footings is authorized to be deposited directly against excavated surfaces. Excavations below indicated depths will not be permitted except to remove unsatisfactory material. Unsatisfactory materials encountered below the grades shown shall be removed as directed and replaced with satisfactory materials; satisfactory materials below the

depths indicated without specific direction of the Engineer shall be replaced at no additional cost to PPA to the indicated excavations grade with satisfactory materials, except that concrete footings shall be increased in thickness to the bottom of the overdepth excavations. Satisfactory/backfill shall be placed and compacted as specified in paragraph: "Backfilling." Determination of elevations and measurements of approved overdepth excavation of unsatisfactory material below grades indicated shall be done as directed by the Engineer.

- b) **Drainage:** Excavation shall be performed such that the areas of the site including its immediate surroundings and other areas affected by the operation, will be continually and effectively drained. Waters shall not be permitted to accumulate in the excavation. The excavation shall be drained by pumping or other satisfactory methods to prevent softening of the foundation bottom, undercutting of footings, or other actions detrimental to proper construction procedure and stability of the structures.

4.0. BACKFILLING

- a) Satisfactory materials shall be used in bringing fills to the lines and grades indicated and for replacing unsatisfactory material. Satisfactory material shall be free from roots and other organic matter, trash, debris, and stones larger than 75mm in any dimension.
- b) Backfilling shall not begin until construction below finish grade has been approved, underground utilities systems have been inspected, tested and approved; forms removed and the excavation cleaned of trash and debris. Backfill shall be brought to indicated finish grades and shall not be placed in wet, muddy or spongy areas. Backfill shall be of satisfactory materials placed and compacted as specified.
- c) **Placing:** Satisfactory material shall be placed in horizontal layers not exceeding 20cm in loose depth and then compacted. No material shall be placed on surfaces that are wet, muddy or spongy.
- d) **Compaction** shall be accomplished by sheep-foot rollers, or other approved equipment well suited to the soil being compacted. Material shall be moistened or aerated as necessary to provide the moisture content that will readily facilitate obtaining the specified compaction with the equipment used.
- e) **Tests** shall be performed on backfill as required by the Engineer.
Compaction shall be up to 95 percent maximum dry density per ASTM.

4.0. PROTECTION

Settlement or washing that occurs in graded or backfilled areas prior to acceptance of the work shall be repaired and graded re-established to the required elevations and sloped at no additional cost to PPA.

6.0 GRAVEL BEDDING

Gravel bedding shall be in accordance with Sub-section 5.9.2 of these specifications.

7.0 SOIL POISONING AND TERMITE CONTROL

7.1. GENERAL

7.1.1. SCOPE

- A. This section covers the furnishing of soil treatment chemicals applied to the compacted soil under all floor slabs and sidewalks adjacent to buildings for treatment of subterranean termites.
- B. Provide soil treatment for termite control as herein specified.
- C. In addition to requirements of these specifications, comply with manufacturer's instructions and recommendations for work, including preparation of substrate and application.
- D. Engage a licensed professional pest control operator for application of soil treatment solution.

7.1.2 RESTRICTIONS

- A. Do not apply soil treatment solution until excavating, filling and grading operations are completed, except as otherwise required in construction operations.
- B. To insure penetration, do not apply soil treatment to excessively wet soils or during inclement weather. Comply with handling and application instructions of termiticide manufacturer.

7.2. WARRANTY

- A. Furnish written warranty certifying that applied soil poisoning treatment will prevent infestation of subterranean termites and, that if subterranean termite activity is discovered during warranty period, the Contractor will re-treat soil and repair or replace damage caused by termite infestation.
- B. Provide warranty for a period of at least (2) years from date of treatment, signed by Applicator and Contractor.

7.3. SOIL TREATMENT SOLUTION:

- A. Contactor to use chemicals approved by the Fertilizer and Pesticide Authority, for soil foundation
 - 1. Verify currently available commercial insecticide. Submit for approval.

7.3. EXECUTION

7.3.1. SURFACE PREPARATION

- A. Remove foreign matter that could decrease effectiveness of treatment on areas to be treated. Loosen, rake, and level soil to be treated, except previously compacted areas under slabs and foundations.

7.3.2 APPLICATION RATES

- A. Apply soil treatment solution at rates specified by termiticide manufacturer.
- B. Allow not less than 12 hours for drying after application, before beginning concrete placement or other construction activities.
- C. Post signs in areas of application warning workers that soil treatment has been applied. Remove signs when areas are covered by other construction.

D. Reapply soil treatment solution to areas disturbed by subsequent excavation, modifications, or other construction activities following application.

8.0. CONCRETE WORKS FOR BUILDINGS

8.1. MATERIAL REQUIREMENTS

- a) Concrete shall consist of Portland cement, fine and coarse aggregates and water and shall conform with the requirements of Section 3.2, "Concrete Works".
- b) Deformed bars to be used shall conform with the reinforcement requirements in Section 3.2, "Concrete Works." The size shall be as shown on the drawings.

8.2. FORMWORKS

8.2.1 General Requirements

Materials and construction of formwork shall be in accordance with formwork requirements in Section 3.2, "Concrete Works."

8.2.2 Removal of Formwork

The minimum stripping and striking time for formwork shall be as follows unless otherwise approved by the Engineer.

Conditions	Minimum Period
Vertical sides of beams, wall, piles, pile caps and columns, lift not exceeding 1.2m	24 hours
Vertical sides of beams and walls, lift exceeding 1.2m	48 hours
Soffits of main slabs and beams (props left under)	5 days
Removal of props from beams and main slabs and other works	10 days

8.3. CONCRETE

8.3.1. Classes of Concrete and Usage a) Strength Requirement

Concrete for footings, tie beams, columns, beams, roof slab, parapets and slab on grade shall develop a minimum 28-day compressive cylinder strength of 4,000 psi. unless otherwise indicated in the drawings.

8.3.2. Concrete Cover for Reinforcement

For Minimum concrete cover, refer to General Notes of the plan.

9.0 MASONRY

- 9.1. Concrete Hollow Blocks (CHB): Shall be of standard manufacture, machine vibrated with fine and even texture and well-defined edges and conforming with the requirements of ASTM C 129. It shall have a minimum compressive strength of *4.5MPa (650psi)*. CHB shall be uniform and essentially smooth as normally achieves by standard molding methods and shall be free from any cracks, flaws or other defects.
- 9.2. Bedding Mortar: Mortar shall be composed of 1 part of Portland cement, 3 parts of sand and $\frac{1}{2}$ part of lime. It shall have a compressive strength of *[14 MPa (2,000 psi)]* at 28 days.
- 9.3. Plaster: Plaster shall comply with the same specification as those for bedding mortar and will include the use of synthetic fibrous reinforcement of type and dosage recommended by the manufacturer.
- 9.4. Reinforcing Steel Bars and Rods: ASTM Specification A 615 with minimum yield strength of *[230 MPa (33,400 psi)]* for 10 mm diameter and *[276 MPa (40,000 psi)]* for 12 mm diameter.

10.0 PAINTING AND CLEANING

Mortar daubs or splashing, before setting or hardening, shall be completely removed from masonry unit surfaces that will be exposed or painted. Before completion of the work, all defects in joints or masonry to be exposed or painted shall be raked out as necessary, filled with mortar, and tooled to match existing joints. Masonry surfaces shall not be cleaned, other than removing excess surface mortar until mortar in joints has hardened. Masonry hardened surfaces shall be left clean, free of mortar daubs, dirt, stain and discoloration, including scum from cleaning operations and with tight mortar joints throughout. Metal tools and metal brushes shall not be used for cleaning.

11.0 STEEL AND METAL WORKS

11.1. MATERIAL REQUIREMENTS

- a) Unless specified herein all steel structures and metals shall conform with the requirements of Section 3.15, "Steel and Metal Works." Connections where details are not specified or indicated herein, shall be designed in accordance with the American Institute of Steel Construction (AISC), Manual of Steel Construction, latest edition.
- b) Structural steel works consisting of channels, gusset plates and other structural steel shape shall be as indicated on the drawings and shall

be structural carbon steel conforming to ASTM A 36. Shapes shall be as given in AISC, Manual of Steel Construction.

- c) High strength structural bolts, shall conform to ASTM A 325, Types 1 or 2. Nuts shall conform to ASTM A 560, Grade A, heavy hex style, except nuts 38 mm (1-1/2 inch) may be provided in hex style. Washers shall conform to ANSI B 18.22.1, Type B.
- d) Electrodes for arc welding shall be E70 series conforming to American Welding Society Specifications A5.1.
- e) Tests are required under the ASTM Standards for steel to be used in the Works and shall be carried out in the presence of the Engineer and at least four (4) days notice must be given to him of the dates proposed for such tests. Four (4) calendar days notice on which fabricated steelwork will be ready for inspection in the Contractor's yard.
- f) Standard bolt shall conform to ASTM A 307 Carbon Steel Externally Threaded Standard Fasteners.

11.2. Painting

All steel work shall be thoroughly dried and cleaned of all loose mill scale, rust and foreign matters by means of sand blasting or other suitable methods approved by the Engineer before shop painting shall be applied. Each individual piece shall be painted prior to assembly. Portions where field welding or field contact with concrete is required, shall not be painted. One (1) coat of epoxy primer and two (2) coats of epoxy enamel shall be applied. All joints, portions of steel member damaged by welding shall be repainted by the same coatings.

12.0. CARPENTRY AND JOINERY

12.1. Wood doors, jambs and headers

Door frames shall be set plumb and level and braced until built-in.

Anchor wood frames in masonry with approved metal anchors on each side of jamb. Top and bottom anchors shall be placed 200mm from head and floor unless indicated on the drawings or directed by the Engineer.

12.2. Hardware installation

Accurately fit and finish hardware items required.

If surface-applied hardware is fitted and applied before painting, remove all such items except butts and re-install after painting.

13.0. CONCRETE WATERPROOFING

- b) The Contractor shall submit the procedure of waterproofing installation/construction for approval of the Engineer.
- c) Membrane waterproofing materials shall be installed only by an experienced installer and shall be installed in accordance with the approved manufacturer's installation procedures or methods, approved by the Engineer.

13.1. Minimum Guarantee Period

The Contractor shall guarantee the work for a minimum guarantee period of one (1) year. The Contractor shall make sub-contract agreement with approved manufacturer in which following conditions shall be included:

- a) Minimum guarantee period of one (1) year after the issuance of Taking-Over Certificate.
- b) The Contractor shall transfer all the rights to the Employer, free of charge after the issuance of Taking-Over Certificate.

13.2. MATERIAL REQUIREMENTS

13.2.1 Membrane Sheets

Membrane sheets shall be pre-formed elastic, self-sealing, cold-applied bituminous membrane sheet made of a combination of selected asphalt, high-grade plasticizers and 0.075 mm thick polyethylene sheet with the following thickness:

- a) 3-ply, 2 mm thick, elastic self-sealing bituminous membrane reinforced with 0.075 mm (3 mils) thick polyethylene sheet which is sandwiched between layers of 1.00 mm thick each elastic self-sealing membranes.

- b) Primer

Priming substrate shall be emulsified asphalt (cutback type) applied at a minimum rate of 4 liters per 9 sq.m.

- c) Sealant

Sealant to seal membrane joint overlaps and termination edges shall constitute 2-component mixture of selected asphaltic material and special grade of mineral matter, applied at a minimum rate of 1.2 kg per sq.m. or 3 kg per membrane sheet.

13.3 EXECUTION

13.3.1 Surface Preparation

- a) Horizontal and vertical concrete and masonry substrate surfaces shall be steel troweled to smooth finish, fully cured, dry, clean and free of rubbish, loose or foreign materials.
- b) Surfaces shall be properly sloped (1.5%) to drain water freely into drain lines, gutters and downspouts.
- c) Inside corners shall be provided with cement mortar cants of 50 mm x 50 mm (min.) or rounded off at 50 mm (min.) radius.
- d) Outside corners shall be curved at approximately 50 mm radius.
- e) Reglets about 40 mm deep x 40 mm wide at 0.25 m above floor finish shall be provided along walls or concrete fascia for the termination of the waterproofing system (flashing).

13.3.2 Priming

A primer shall be applied to impregnate the surface of the base substrate by brush or roller at a coverage of not less than 9 sq.m per 4 liters from a pre-selected side of the area towards the other end of the surface area. The Contractor shall allow the primer to dry or become tacky for at least one hour.

13.3.3 Membrane Installation

- a) Membranes shall be installed by peeling off the plastic covering of the sticky side and unrolling slowly into place. The sheets shall be pressed firmly to the surface and forced out any entrapped air. Membranes shall be applied from the low point to the high point across the fall line so that the laps shed water.
- b) Subsequent sheets shall be installed with 50 mm minimum overlaps on all sheet joints. All overlaps shall be bonded using a sealant of a 2-component mixture of selected asphaltic material and special grade of mineral matter or sealant for joint overlaps and termination edges.
- c) Construction and expansion joints shall be double-covered with a strip of the same grade of membrane of about 300 mm wide centered on the axis of the corner or joint.

13.3.4 Floodtesting

Floodtest for a duration of 48 hours shall be undertaken upon completion of waterproofing installation to determine any leakage or defect on the materials and/or workmanship.

14.0 DOORS AND WINDOWS

The works shall consist of furnishing all labor, materials, tools, equipment and other incidentals necessary for the complete installation of the

above mentioned doors and windows, including glazing, as shown on the drawings and in accordance with this specifications or as directed by the Engineer.

a) Wood doors shall be of the following types where indicated on the drawings with complete locksets, hinges and accessories.

1. Flush-type marine hollow core plywood doors.

d) Door jambs and headers shall be well-seasoned yakal or ipil.

e) Nails shall be of the smooth shank, zinc-coated, common wire nails of the types and sizes suited for the purpose and as directed by the Engineer.

f) Wood screws shall be brass or cadmium plated of the best available commercial quality of the types and size suited for the purpose.

14.1. Steel Doors

a) Door frames, spacer yoke and face panel shall be fabricated from pressed steel sheet, gauge 16, ASTM A 36 with powder coated finish.

b) Stiffeners shall be fabricated from pressed steel plate, gauge 14
ASTM A 36.

c) Anchor bolts shall be 9 mm Ø flathead countersank in expansion shield (3 per jamb) ASTM A 36.

13.2. PVC Doors

Vinyl: Integral color PVC compound containing impact-resistant solid plasticizer.

Comply with ASTM D 4216.

14.0 FINISH HARDWARE

14.1. MATERIAL REQUIREMENTS

a) All items of finish hardware of like kind and purpose shall be of the same approved manufacturer.

The Contractor shall furnish and install all finish hardware to complete the work as indicated on the drawings. Finish hardware shall be suited and adopted to its required use and shall fit its respective location. Finish hardware not specified shall be as directed by the Engineer.

c) Unless otherwise shown on the drawings or specified, butt hinges shall be brass for interior and for exterior doors, with oil-impregnated bearings, non-rising loose steel pins with button tips and mounting screws of the same

material. Butt hinges shall have five knuckles and shall be of the type specified under hardware schedule.

- d) Locksets shall have cylindrical type case 50 mm (2") to 63 mm (2-1/2") diameter, with separate latch bolt cast, 19 mm (3/4") to 25 mm (1") diameter, with chromium plated dull finish. Cylindrical case locks and latches shall be applied to doors by inserting cylindrical type case into a hole bored through the face of the door stile, and separable latch bolt case into a hole bored in the edge of the stile. Cylindrical cases shall be secured in doors by means of flanges attached to the case; and the latch bolt case shall be secured by attachment to the edge of the door and to cylindrical case of operating mechanism. Brands shall be "YALE", "KWIKSET", "SCHLAGE" or approved equivalent.
- f) Hinge hasps for lockers shall be zinc-coated wrought steel with pin. Unless otherwise shown or specified, width shall be 48 mm (1-7/8") and length shall be 100 mm (4 inches).

Fasteners of proper type, quality, size, quantity and finish shall be supplied with the hardware. All fasteners exposed to the weather shall be non-ferrous metal and shall match the trim finish as closely as possible.

Spring hinges shall be 75 mm x 75 mm (3" x 3") plated wrought steel with steel pins and fully enclosed coil springs with adjustable tension. Cylinders shall be integral with one leaf.

- g) Padlocks shall be of pin tumbler type with solid or laminated brass case, and steel hardened shackles.
- h) Butt Hinges
- 1) Each panel of hinged doors shall be provided with two (2) butts for doors 1.5 m or less in height; three (3) butts, over 1.5 m high and not over 2.10 m; four (4) butts, above 2.10 m in height.
 - 2) Doors of a greater height than 2.10 m, unless otherwise specified, shall be provided with an additional one (1) butt for each 0.65 m or fraction thereof.

3) Size of Butt Hinges required:

Thickness of	Width of Door	Size of Butt Hinges
21 mm or 25 mm (7/8" or 1")	0.90 m (3") or less	63 mm (2-1/2")
28 mm (1-1/8")		75 mm x 75 mm (3" x 3")
35 mm (1-3/8")		89 mm x 89 mm (3-1/2" x 3-1/2")
44 mm (1-3/4")		100 mm x 100 mm (4" x 4")

4) Where the size of the butt hinges is not sufficient to allow door to clear door trim in open position, same shall be increased.

14.2. EXECUTION

- a) All hardware, shall be installed in a neatly, workman-like manner following the manufacturer's instructions and as shown on the drawings. Fasteners supplied with the hardware shall be used to secure the hardware in place. Wood screws shall be used for securing hardware to wood surfaces. Machine screws, set in expansion shields, shall be used for securing hardware to masonry or concrete surfaces.
- b) The bolts shall be used where specified or where necessary for satisfactory installation. After installation hardware shall be protected by the Contractor from paint, stains, blemishes and damages until issuance of Taking-Over Certificate of the work. All hardware shall be properly adjusted and checked-out in the presence of the Engineer to see that the hinges, locks, latches and bolts operate properly. After the hardware is checked, keys shall be tagged, identified and delivered. Any error in cutting and fittings, or any damages to adjoining work shall be replaced, as directed by the Engineer.

15.0. FINISHES

Wall, floor, ceiling and other finishing works shall include but are not limited to the following:

- a) Plain cement plaster (steel trowel) finish painted with acrylic latex paint for exterior and interior CHB (Concrete Hollow Blocks) wall;
- b) Glazed tile wainscoting for toilet;
- d) Vitrified ceramic tiles for toilet floor;
- f) Non-skid Ceramic Tiles
- h) Rubbed concrete finish, painted with acrylic latex paint for exposed R.C. Ceiling (bottom of roof slab and beams)
- i) Marine Ceiling Board

15.1. MATERIAL REQUIREMENTS

15.1.1. Wall Finishes and Countertops

a) Plain Cement Plaster Finish

- 1) Sand shall be clean and hard material. Sand shall be free from deleterious substances and conforming with the requirements of ASTM C 33.
- 2) Cement shall be Portland cement conforming with the requirements of ASTM Designation C 150.
- 3) Water shall be clean and potable.
- 4) Bonding compound shall conform to ASTM C 631.
- 5) Hydrate lime shall conform to ASTM C 206.
- 6) Synthetic fibrous reinforcement shall conform to BS 5139 or ASTM C 1116.

b) Wall Ceramic Tiles

- 1) Wall tiles shall be 100 mm x 100 mm white glazed ceramic wainscoting.
- 2) Trimmers and moulding shall be lustrous, glazed with size and color corresponding to wall tiles.
- 3) Mortar shall be one part of Portland cement to two parts sand.
- 4) Portland cement, and, bonding compound and water shall conform with the requirement of 4.12.2.1.a) above.

15.1.2. Floor Finishes

b) Vitrified Ceramic Unglazed Tiles

- 1) Vitrified ceramic unglazed floor tiles shall be 100 mm x 100 mm, white for toilets and as shown on the drawings or to be designated by the Engineer.
- 2) Portland cement, sand and water shall conform with the requirements specified in Sub-section 4.12.2.1a above.
- 3) Vitrified ceramic unglazed floor tiles shall be delivered in the manufacturer's original unbroken packages or containers that are labeled plainly with the manufacturer's name and brand. Containers shall be grade scaled. Materials shall be stored in dry weathertight enclosures, and shall be handled in a manner that will prevent the inclusion of foreign materials and damage by water or dampness.

c) Plain Cement Floor Finish

1) Portland cement, sand, bonding compound and water shall conform with the requirements specified in Sub-section 4.12.2.1a above. Mortar shall be one part of Portland cement to three parts sand.

d) Non-skid ceramic floor tiles

Non-skid ceramic tiles shall be 100mm x 200mm white ceramic tiles to be used [for kitchen] as shown on the Drawings.

15.1.3. Ceiling Finishes

a) Rubbed Concrete Finish

Portland cement, sand, bonding compound and water shall conform with the requirements specified in Sub-section 4.12.2.1a above.

b) Marine Plywood Board

Marine Plywood shall be 6mm thick on metal framing for interior ceiling.

16.0 PAINTING

16.1. Schedule of Painting a) Concrete Surfaces

1) Interior and Exterior Masonry (Concrete walls, plastered hollow blocks, Concrete Ceiling).

- i. For Interior Walls : semi-gloss
- ii. For Exterior Walls : semi-gloss

Primer - Acrylic Concrete Primer and Sealer
Finish - 100% Acrylic Latex Paint

b) Wood Surfaces

1) Wood doors, jambs, etc.:

Wood varnished finish on wood doors and jambs.

c) Steel Surfaces – one(coat) of epoxy primer, two (2) coats of epoxy enamel paint

17.0 PLUMBING AND SANITARY WORKS

17.1. Standards

Use of materials shall further be governed by other requirement imposed on other sections of these Specifications. Materials shall be subject to tests necessary to ascertain their fitness if the Engineer so requires. All works shall comply with the pertinent provisions of the Plumbing Code of the concerned city or town, the Code on Sanitation of the Philippines, and/or the National Plumbing Code of the Philippines.

a) Soil, Waste, Drain, Vent Pipes and Fittings

Soil waste, drain and vent pipes and fittings shall be Polyvinyl Chloride (PVC) pipes, series 1000. d)

Jointing Material

The joint material for PVC pipes shall be PVC solvent cement as recommended by the approved pipe manufacturer.

b) Water Supply Pipes

Water supply pipes shall be Polypropylene (PPR) pipes suitable for water supply use. Joining shall be used by an approved means. Final connections at fixtures which shall be chrome plated brass pipe and fittings. Suitable adapters shall be used where changes of materials are made.

c) Cleanouts, Plugs and Tee

Cleanouts shall be of the same material as the pipe to be fitted. Cleanouts installed in connection with PVC hubs and spigot pipes shall consist of a long sweep quarter bend of $\frac{1}{4}$ as shown on the drawings.

d) Pipe Sleeves

Pipe sleeves shall be made of standard steel pipe of sufficient diameter to provide 3.2 mm minimum clearance around the pipe. Roof or floor sleeves shall be provided with an outside welded flange of not less than 76 mm around sleeves and shall be provided with four (4) rods welded to sleeves.

e) Downspout

All downspout shall be polyvinyl chloride (PVC) pipe class DWV conforming to ASTM D2729 or ISO 161 for sanitary pipes, Series 1000.

f) Splash Block

Provide splash blocks at the outlet of downspout emptying at grade which shall be made of pre-cast concrete, with smooth finished counter sunk dishes sloped to drain away from the building. Dimensions as shown on the Drawings.

g) Roof Strainers

The Contractor shall provide fittings and install 100 mm Ø G.I. mesh wire strainers where shown or indicated on the drawings and/or where the Engineer directs. Each strainer shall fit the size of the corresponding downspout which is to be installed.

h) Shower, Floor and Urinal Drain

Shower and floor drains shall be made of stainless steel non-tilting grate, perforated or slotted. Urinal drains shall be cast iron dome type drain.

i) Unions

Union pipe 50 mm in diameter and smaller shall be malleable iron. Union on water piping 63mm in diameter and larger shall be flanged pattern and shall be of galvanized (zinc coated) cast iron. Gaskets for flange unions shall be of best quality fiber plastic or leather.

j) Valves

Valves shall be cast bronze or brass body. Chrome plated finish for all fixture taps and faucets and natural finish for all others, like hose bibbs, gate valves and which

are not tapped directly to a plumbing fixture. Concrete valve boxes shall be installed where required and will be of sufficient size for operating the valve.

k) Fixtures

1) Water Closets

All water closets for toilets as shown on the drawings shall be TANK TYPE, white with complete fittings and mounting accessories. Brands shall be "AMERICAN STANDARD" or approved equivalent.

2) Lavatories

- (i) Lavatory (Wall Hung): Shall be vitreous china, wall hung lavatory with rear overflow holes, fitting ledge suitable for single faucet holes on centers complete with faucet, standard fittings, trap and lavatory brackets and other accessories.
- (ii) Lavatory (Countertop Lavatory): Shall be vitreous china, oval shaped countertop lavatory with front overflow hole, complete with faucet, supply valve and fittings with P-trap. Fitting ledge suitable for single hole on center.

3) Urinals

- (i) Urinals for all comfort buildings shall be built-in urinal trough as shown on the drawings.
- (ii) Urinals: Shall be vitreous china, wall-hung washout urinal, flushing rim, integral trap, 19mm top and shall be provided with water saving flush system .

4) Service Sinks

Service sinks where indicated or shown on the Drawings shall be stainless steel, with single bowl and with complete U.S. or Japan imported fittings.

5) Slop Sinks

Slop Sink shall be precast concrete finished on all exposed surface with glazed ceramic tiles; tile splash back; waste and drain fittings. Hose bibb shall be of brass finish.

18.0 ELECTRICAL WORKS

All electrical works shall comply with the provisions of the Philippine Electrical Code and the local power utility company.

18.1. MATERIALS AND EQUIPMENT REQUIREMENTS

Materials, equipment, and devices shall, as minimum, meet requirements of UL, where UL standards are established for those items, and requirements of NFPA 70. All items shall be new.

18.1.1 Conduit and Fittings

- a) Rigid Steel Conduit (RSC) : Hot dip galvanized: ANSI C80.1. b)
- Flexible Metal Conduit : UL 1.

- 1) Liquid-Tight Flexible Metal Conduit (Steel): UL 360.

- c) Rigid Plastic Conduit : PVC schedule 40 in accordance with UL 651.
- d) Fittings for Metal Conduit, and Flexible Metal Conduit : UL 514B.
Ferrous fittings shall be hot dip galvanized in accordance with UL 514.
 - 1) Fittings for RSC: Shall be threaded-type. Split couplings are not acceptable.
- e) Fittings for Rigid Nonmetallic Conduit : NEMA TC3.

18.1.2. Outlet Boxes and Covers
UL 514, hot dip galvanized for ferrous metal.

18.1.3. Cabinets, Junction Boxes, and Pull Boxes (with volume greater than 100 cubic inches) UL 50, hot dip.

18.1.4. Wires and Cables

Wires and cables shall meet applicable requirements of PEC, NFPA 70 and UL for types of insulation, jackets, and conductors specified or indicated. Wires and cables manufactured more than 6 months prior to date of delivery to site shall not be used.

- a) Conductors: Conductor 3.5mm² and smaller shall be solid, 5.5 mm² and larger shall be stranded. All conductors indicated shall be copper.

1) Equipment Manufacturer Requirements:

If manufacturer's equipment requires copper conductors at the terminations or requires copper conductors to be provided between components of equipment, provide copper conductors or splices, splice boxes, and other work required to satisfy manufacturer's requirements.

2) Minimum Conductor Sizes:

- a.) Minimum size for branch circuits shall be 3.5 mm².

b) Color Coding

For 240V, 60Hz, 1Ø, 2 wire Phase

A	-	Black Phase
B	-	Red
Grounding	-	Green

c) Insulation:

Unless specified for indicated otherwise or required by PEC and NFPA 70, power and lighting wires shall be 600volt, Type THHN or THW. d)

Bonding Conductors:

ASTM B1, solid bare copper wire for sizes 8.0 mm² and smaller diameter; ASTM B8, Class B, stranded bare copper wire for sizes 14 mm² and larger diameter.

18.1.5. Splices and Termination Components

UL 486A as applicable, for wire connectors and UL 510 for insulating tapes. Connectors for 5.5 mm² and smaller diameter wires shall be insulated, pressure-type in accordance with UL 486A or UL 486C (twist-on splicing connector).

- a) Provide solderless terminal lugs on stranded conductors.

18.1.6. Device Plates

Provide UL listed, one-piece device plates for outlets and fittings to suit the devices installed. For metal outlets and fittings, plates on unfinished walls and on fittings shall be of zinc-coated sheet steel or cast metal having round or bevelled edges. Plates on finished walls shall be urea or phenolic, minimum 2.5mm wall thickness. Plates shall be same color as receptacle or toggle switch with which they are mounted. Screws shall be machine-type with countersunk heads in color to match finish of plate. Use of sectional-type device plates will not be permitted. Plates installed in wet locations shall be gasketed and UL listed for "wet locations."

18.1.7. Switches

- a) Toggle Switches:

Totally enclosed with bodies of thermosetting plastic and mounting strap. Wiring terminal shall be screw-type, side-wired. Switches shall be rated quiet-type AC only, 250 volts, with current rating and number of poles indicated.

- b) Receptacles

UL 498 and NEMA WD 1, heavy-duty, grounding-type. Ratings and configurations shall be as indicated. Wiring terminals shall be screw-type, side-wired. Connect grounding pole to mounting strap.

18.1.8. Panelboards

- a) Panelboard Buses:

All buses shall be copper support bus bars on bases independent of circuit breakers. Main buses and back pans shall be designed so that breakers may be changed without machining, drilling, or lapping. Provide separate ground bus per UL 67 for connecting grounding conductors; bond to steel cabinet.

- b) Circuit Breakers:

Ambient-compensated thermal magnetic-type solid state-type with interrupting capacity of 10,000 amperes symmetrical minimum. Breaker terminal shall be UL listed as suitable for type of conductor provided.

18.1.9. Grounding and Bonding Equipment

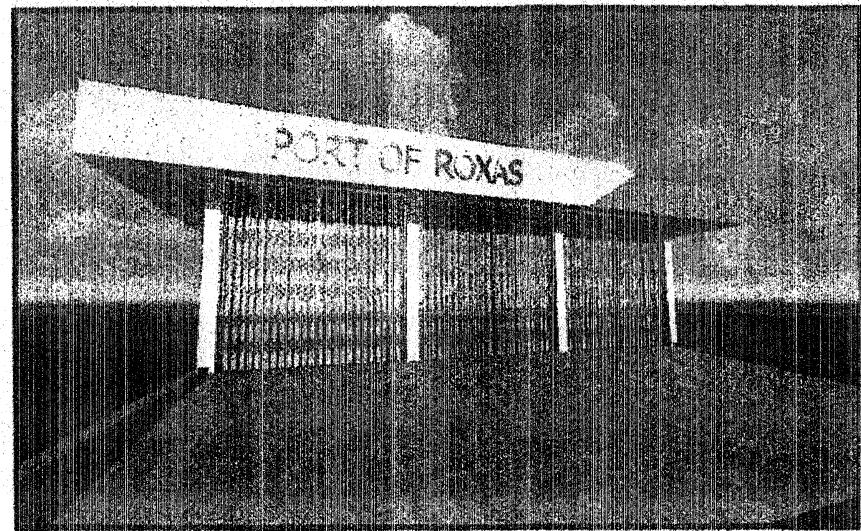
UL 467. Ground rods shall be copper-clad steel, with minimum diameter of 20mm and minimum length of 3 meters.

IV. CLEARING WORKS

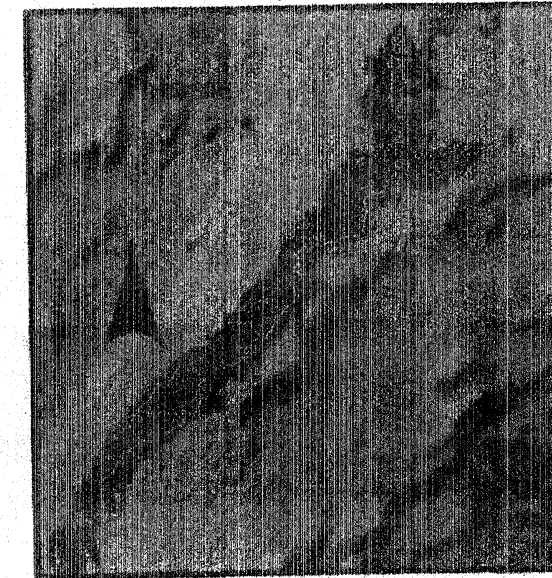
The Contractor shall remove all temporary structures erected, excess materials and construction debris within the construction/port area upon completion of the project.

Section VII. Drawings

CARGO SHED



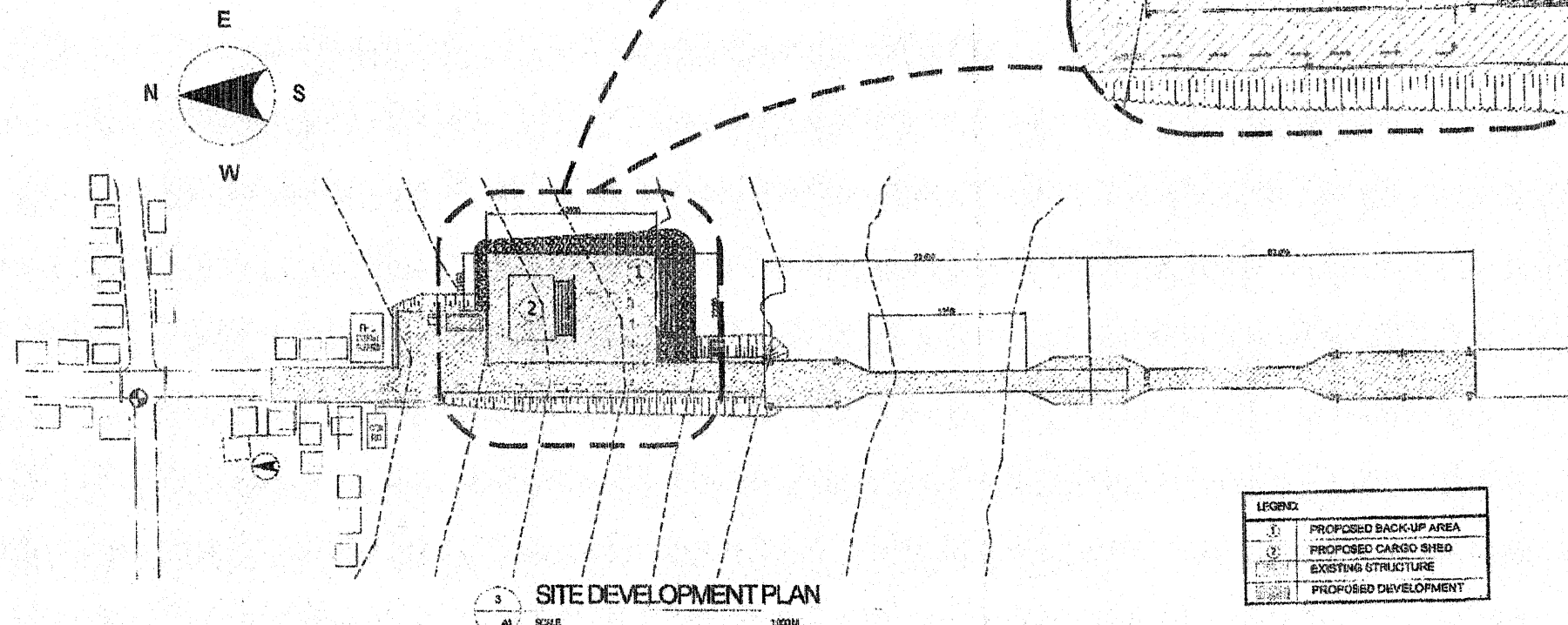
1 PERSPECTIVE
A1 SCALE NTS



2 VICINITY MAP
A1 SCALE NTS

LEGEND	
VEHICLES / CARGOES INGRESS	
VEHICLES / CARGOES EGRESS	

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A-03 of 03	SCHEDULE OF DOORS AND WINDOWS ELEVATION PLAN OF MAINTENANCE TOILET SECTION THROUGH SECTION THROUGH
	SITE DEVELOPMENT PLAN VICINITY MAP LEFT SIDE ELEVATION SECTION THROUGH SECTION THROUGH PARAPET DETAIL 1 PARAPET DETAIL 2 PORT BRIDGE DETAIL INTERIOR DETAILS (TYP)
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	SANITARY GRAVITY STORM DRAIN FOOT CRAWLSPACE WATERLINE LAYOUT INSTALLATION DETAILS OF WATER METER MATERIAL SPECIFICATIONS SCHEDULE OF PIPE



3 SITE DEVELOPMENT PLAN
A1 SCALE 1:100M

LEGEND	
1	PROPOSED BACK-UP AREA
2	PROPOSED CARGO SHED
	EXISTING STRUCTURE
	PROPOSED DEVELOPMENT

SCALE: AS SHOWN

SHEET NO: A01 of 03

DATE: AUGUST 2019

SHEET CONTENTS

PERSPECTIVE
VICINITY MAP
TABLE OF CONTENTS

PROJECT TITLE

ROXAS PORT DEVELOPMENT PROJECT
PORT OF ROXAS, PALAWAN

APPROVED

RECOMMENDED BY

NOTED BY

PREPARED BY

PHILIPPINE PORTS AUTHORITY

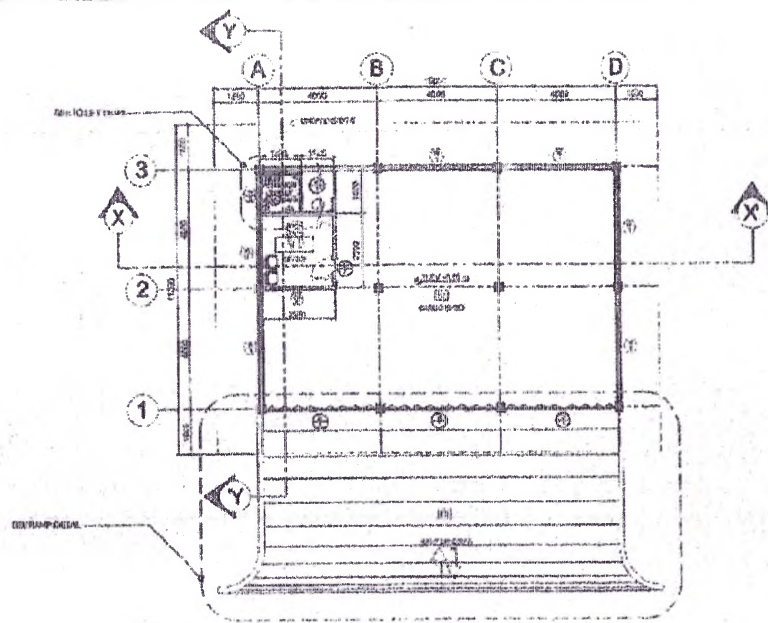
APPROVED

RECOMMENDED BY

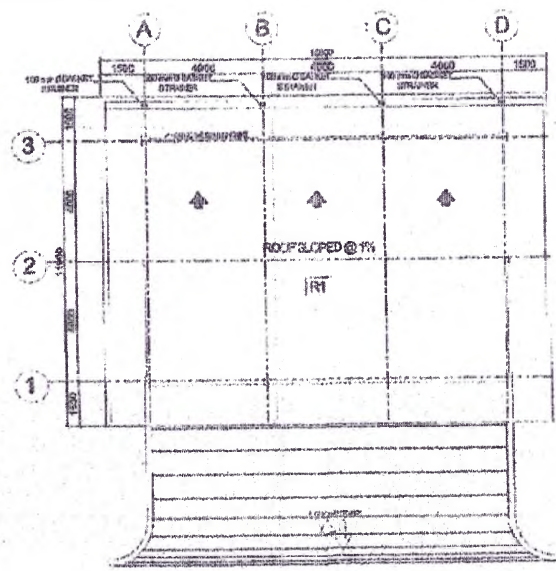
NOTED BY

PREPARED BY

PHILIPPINE PORTS AUTHORITY



1 FLOOR PLAN
SCALE 1:50M



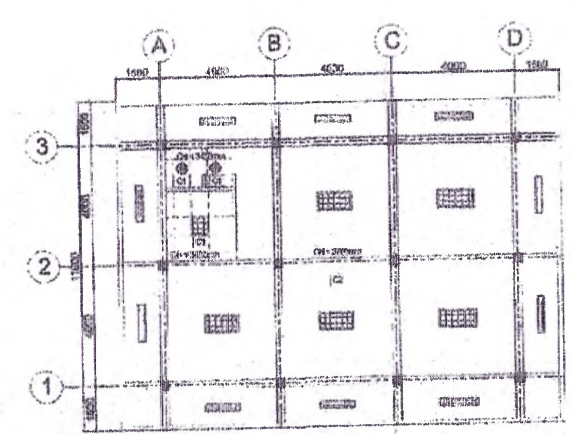
2 ROOF PLAN
SCALE 1:50M

LEGEND:

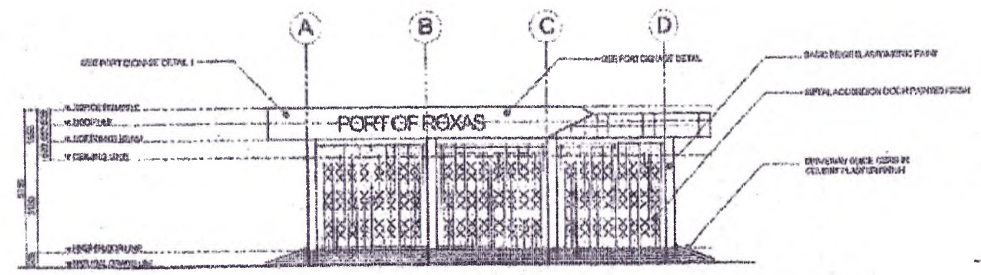
F1	600mm X 600mm UNGLAZED CERAMIC TILE FINISHED
F2	600mm X 600mm NON-SLIP TILE FLOOR FINISHED
F3	NON-SKID OR ROUGH CEMENT FINISH
R1	WATER-PROOF FINISH

LEGEND:

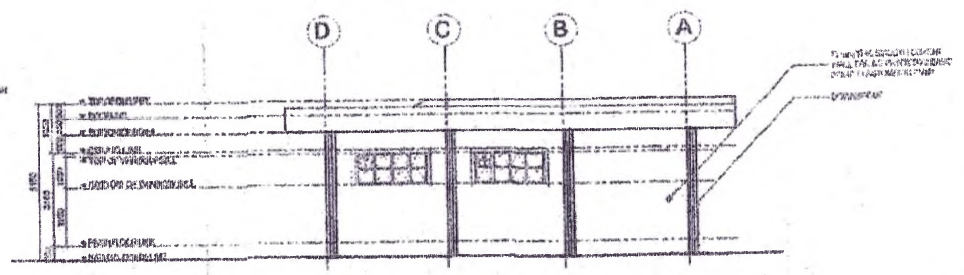
C1	ALUMINUM CLIP IN PERFORATED PANELS, BONE WHITE, OF EQUIVALENT 600 mm X 600 mm X 0.70 mm
C2	PAINTED UNDERSIDE OF R.C. SLAB



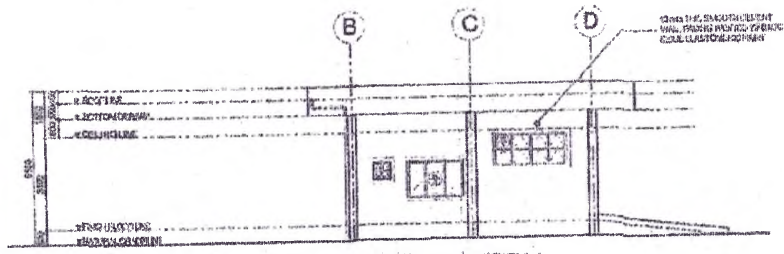
3 REFLECTED CEILING LIGHTING LAYOUT PLAN
SCALE 1:50M



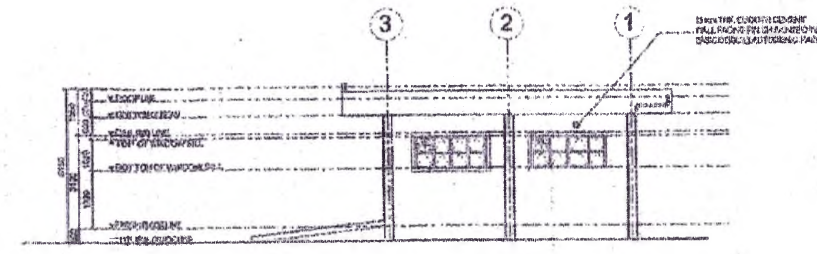
4 FRONT ELEVATION
SCALE 1:50M



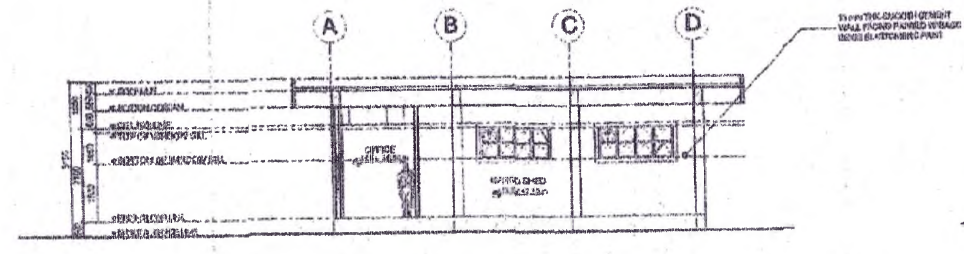
5 REAR ELEVATION
SCALE 1:50M



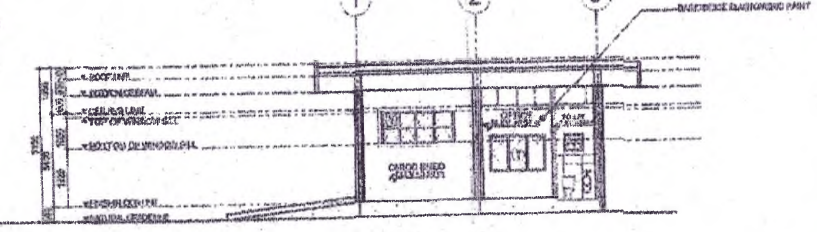
6 RIGHT SIDE ELEVATION
SCALE 1:50M



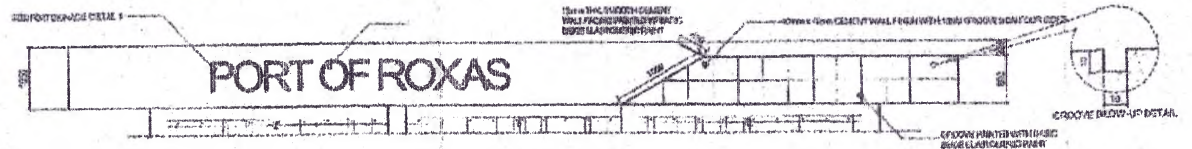
7 LEFT SIDE ELEVATION
SCALE 1:50M



8 SECTION THRU X-X
SCALE 1:50M



9 SECTION THRU Y-Y
SCALE 1:50M



10 PARAPET DETAIL
SCALE 1:50M

PORT OF ROXAS

NOTES:
 1. NOTIFY THE ARCHITECT FOR ANY CHANGES, CLARIFICATIONS AND DISCREPANCIES.
 2. SEE INTENT FOR LOCATION.
 3. SIZES MAY VARY DEPENDING ON LOCATION.

11 PORT SIGNAGE DETAIL
SCALE 1:50M

PHILIPPINE PORTS AUTHORITY

PROJECT TITLE: ROXAS PORT DEVELOPMENT PROJECT

PROJECT NO.: A-02 of 03

DATE:

SCALE:

APPROVED BY: [Signature]

RECOMMENDED BY: [Signature]

NOTED BY: [Signature]

CHECKED BY: [Signature]

PREPARED BY: [Signature]

DESIGNED BY: [Signature]

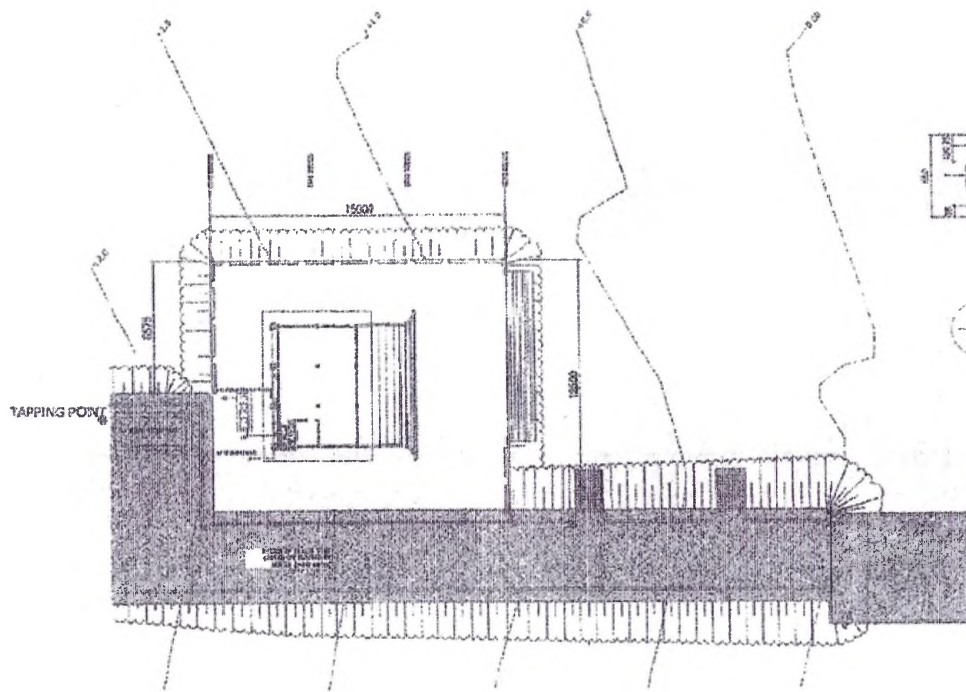
PROJECT MANAGER: [Signature]

ARCHITECT: [Signature]

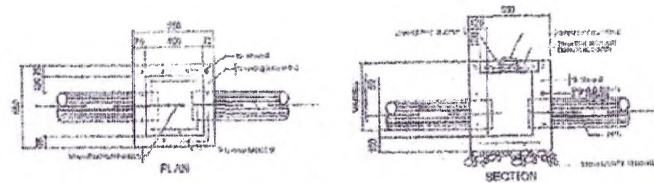
ENGINEER: [Signature]

CONTRACTOR: [Signature]

CLIENT: [Signature]



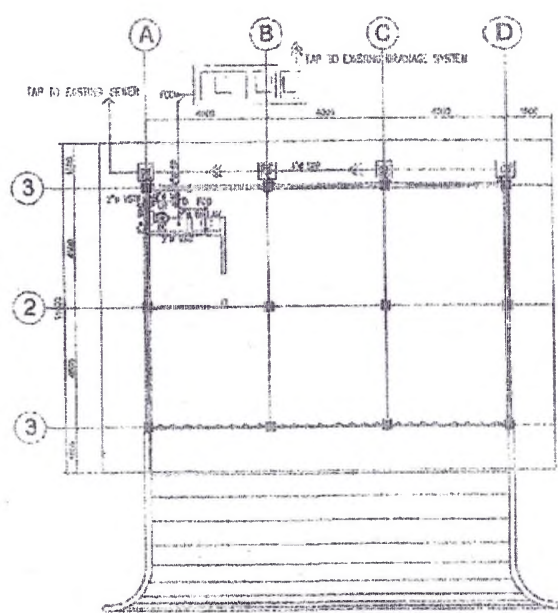
1 DRAINAGE LAYOUT PLAN
SCALE 1:300 M



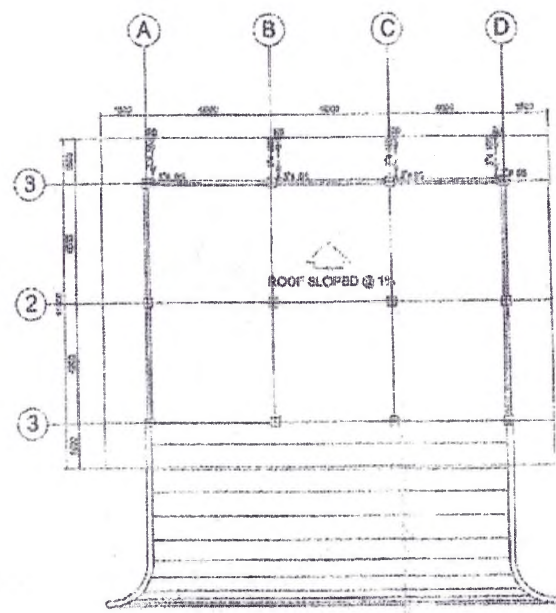
2 TYPICAL SECTION OF CATCH BASIN
SCALE 1:100 M



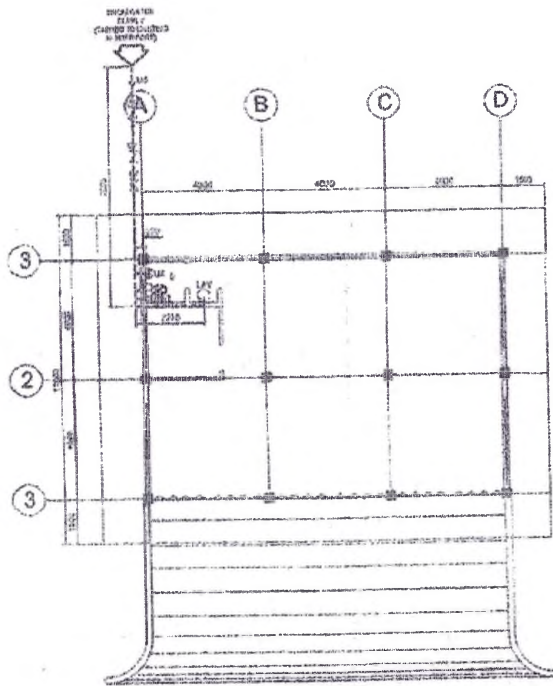
3 MANHOLE COVER DETAILS
SCALE 1:100 M



4 SANITARY SEWAGE & STORM DRAIN LAYOUT
SCALE 1:100 M



5 ROOF DRAIN LAYOUT
SCALE 1:100 M



6 WATER LINE LAYOUT
SCALE 1:100 M

GENERAL NOTES AND SPECIFICATIONS:

- IT IS NOT INTENDED THAT THE DRAWINGS SHALL SHOW EVERY PIPE FITTING, VALVE AND APPURTENANCE. ALL SUCH ITEMS WHETHER SPECIFICALLY MENTIONED OR NOT, OR INDICATED ON THE DRAWINGS SHALL BE FURNISHED AND INSTALLED IF NECESSARY TO COMPLETE THE SYSTEM TO THE SATISFACTION OF THE OWNER.
- ALL PLUMBING WORKS SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THE NATIONAL PLUMBING CODE OF THE PHILIPPINES, THE REQUIREMENTS OF THE LOCAL PLUMBING INSPECTION OFFICE, PERTINENT PROVISIONS OF THE UNIFORM BUILDING CODE AND THE NATIONAL BUILDING CODE OF THE PHILIPPINES.
- COORDINATE THE DRAWING WITH OTHER RELATED DRAWINGS AND SPECIFICATION. THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY FOUND THEREIN.
- ALL PIPES SHALL BE INSTALLED AS INDICATED ON PLANS. ANY RELOCATIONS REQUIRED FOR PROPER EXECUTION OF OTHER TRADE SHALL BE WITH PRIOR APPROVAL OF THE ARCHITECT OR ENGINEER.
- PROPOSED SANITARY UTILITIES SHALL CONFORM TO THE ACTUAL LOCATION, DEPTH AND INVERT ELEVATION OF ALL EXISTING PIPES AND STRUCTURES AS VERIFIED BY THE CONTRACTOR.
- ALL SLOPES FOR HORIZONTAL DRAINAGE SHALL MAINTAIN 1% UNLESS OTHERWISE SPECIFIED.
- SIZE OF WATER SUPPLY PIPES TO FIXTURES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES AT THE SITE. COORDINATE THE WORKS WITH THE SEWER LINE EFFLUENT DISPOSAL POINT AND WATER LINE SERVICE CONNECTING POINT, UNLESS OTHERWISE SPECIFIED.
- ALL FIXTURES SHALL BE INDIVIDUALLY VENTED.
- THE INVERT OF THE INLET PIPE OF A SEPTIC TANK SHALL BE AT A LEVEL NOT LESS THAN 50.8mm (2") ABOVE THE INVERT OF THE OUTLET PIPE.
- TO PREVENT CONTAMINATION OF UNDERGROUND WATER SOURCE NO SEPTIC TANK SHALL BE CONSTRUCTED LESS THAN 1.20m ABOVE THE WATER TABLE LEVEL.
- ALL PIPE SIZE ARE IN MILLIMETERS AND ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
- MINIMUM SEWAGE PIPE SIZE SHALL BE AS FOLLOWS:
SOIL PIPE 110mm Ø (4")
WASTE PIPE 40mm Ø (1 1/2")
VENT PIPES 63mm Ø (2 1/2")
DOWNSPOUT 63mm Ø (2 1/2")
- ALL PLUMBING INSTALLATION INCLUDED HEREIN SHALL BE UNDER THE DIRECT SUPERVISION OF A DULY REGISTERED AND LICENSED MASTER PLUMBER.

PLUMBING LEGEND:

	GATE VALVE		SOIL PIPE
	CHECK VALVE		STORM DRAIN PIPE
	WATER METER		VENT PIPE
	REDUCER		CATCH BASIN
	COLD WATERLINE		AREA DRAIN
	WASTE PIPE		
	DOWNSPOUT		CEILING CLEAN OUT
	SHOWER VALVE		COLD WATER RISER
	KITCHEN SINK		VENT STACK THRU ROOF
	LAUNDRY TRAY		CLEAN OUT
	FAUCET		SHOWER DRAIN
	FLOOR DRAIN		VENT PIPE
	HOSE BIB		WASTE PIPE
	WATER CLOSET		SOIL PIPE
	LAVATORY		MAIN VENT
	DAY TUB		VENT ABOVE CEILING
	FOOT BATH		FLOOR CLEANOUT
	HORIZONTAL RAINWATER PIPING		UNDER FLOOR VENT
	CONDENSATE PIPE		ROOF DRAIN
	DOWNSPOUT		

PHILIPPINE PORTS AUTHORITY

PROJECT TITLE: ROXAS PORT DEVELOPMENT PROJECT

LOCATION: ROXAS, PALAWAN

DATE: JULY 2010

SHEET NO. P-01 of 02

AS SHOWN

SCALE

PREPARED BY: CHRISTOPHER L. GRANA, PLS

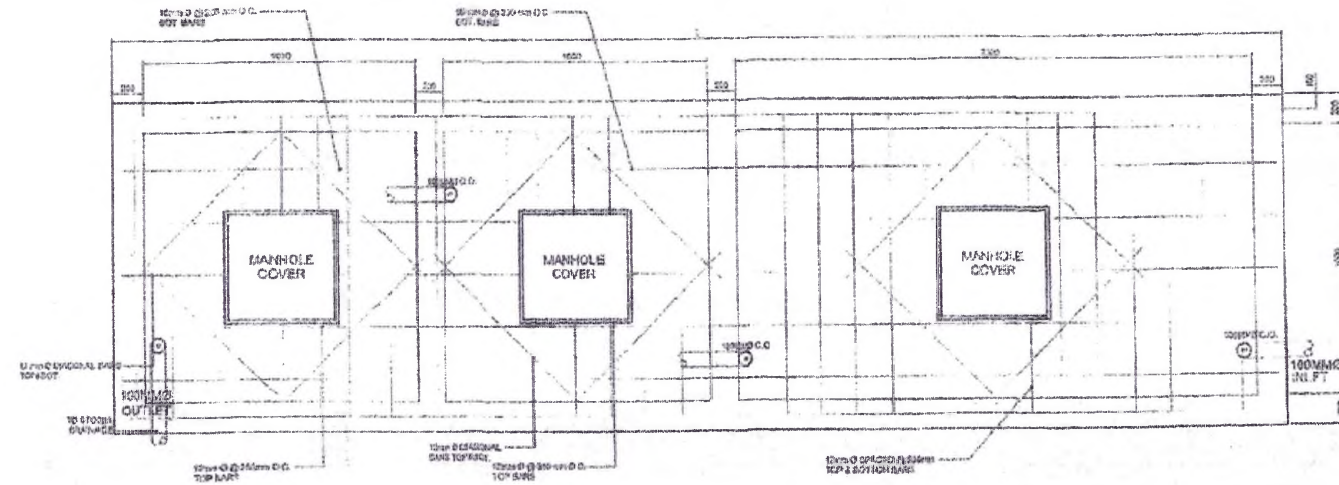
CHECKED BY: JERONICO C. PARRAS, PLS

NOTED BY: ROLANDO C. DEERBIN, Division Manager, PWD

RECOMMENDED BY: REYNALDO C. PARRAS, Jr., Division Manager, PWD

APPROVED BY: CONSTANTINE P. PARRAS, JR., Asst. Div. Manager, PWD

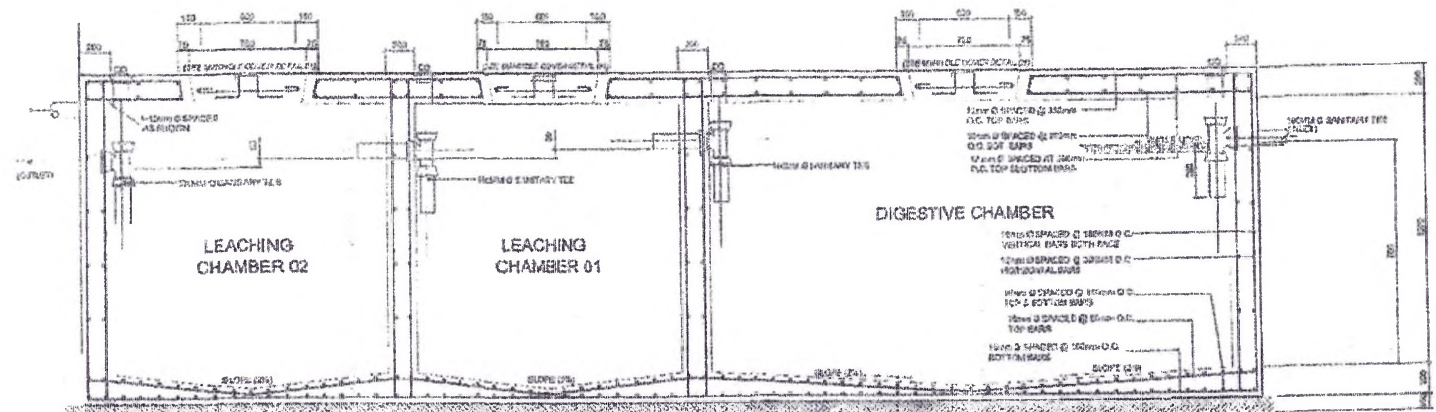
MISCELLANEOUS DETAILS/ DETAILS OF SEPTIC TANK



1 PLAN OF SEPTIC TANK
SCALE NTS

COMPUTED EXISTING SIZE:
DIGESTIVE CHAMBER: 2.00 MTS
LEACHING CHAMBER: 1.00 MTS
LEACHING CHAMBER: 1.00 MTS

SEPTIC TANK SIZE:
WIDTH: 1.40 MTS
LENGTH: 4.00 MTS
DEPTH: 1.40 MTS



2 LONGITUDINAL SECTION
SCALE NTS

MATERIAL SPECIFICATIONS:

- COLD WATER LINE SHALL BE POLYPROPYLENE RANDOM (PPR) TYPE 3 PIPE, "HAWIR LKOPULASTIK" BRAND OR APPROVED EQUAL.
- VENT PIPES SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SERIES 1000, "NELTEN", "ATLANTA" BRAND OR APPROVED EQUAL.
- FITTING SHALL BE SOLVENT CEMENT JOINT TO ASTM D2854.
- SEWER LINES SHALL BE POLYVINYL CHLORIDE (PVC) PIPE SERIES 1000, "NELTEN", "ATLANTA" BRAND OR APPROVED EQUAL D2854.
- STORM DRAINAGE LINES/ DOWNSPOUT SHALL BE POLYVINYL CHLORIDE (PVC) SERIES 1000, "ATLANTA" BRAND OR APPROVED EQUAL. FITTING SHALL BE SOLVENT CEMENT JOINT TO ASTM D 2854. 300MM Ø & ABOVE MATERIAL SHALL BE CONCRETE DRAIN PIPE (CDP) TONGUE & GROOVE, MORTAR JOINTS, REINFORCED FOR 300MM Ø & LARGER.
- CHECK VALVES "GREAT VOLUME" CRANE, "KITS", OR APPROVED EQUAL.
- GATE VALVES "GREAT VOLUME" CRANE, "KITS", OR APPROVED EQUAL.
- WATER METER "ARAD", "ASAHI" BRAND OR APPROVED EQUAL.

SCHEDULE OF PIPE (SEWER LINE)

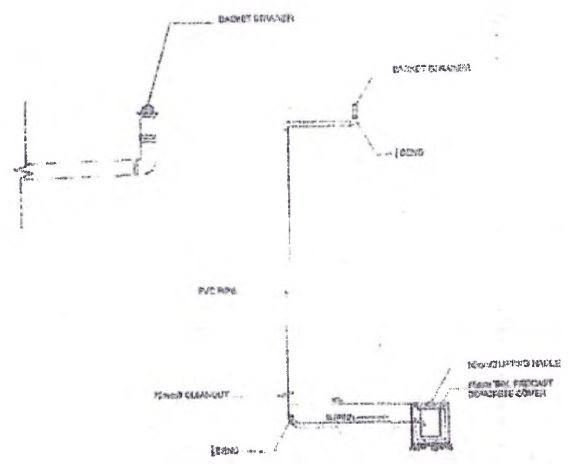
	ABV	SIZE OF PIPE (mm)	TYPE OF PIPE
WATER CLOSET	WC	100	PVC (SERIES 1000)
LAVATORY	LAV	50	PVC (SERIES 1000)
URINAL	UR	50	PVC (SERIES 1000)
FLOOR DRAIN	FD	50	PVC (SERIES 1000)
ELECTRICAL DRAIN	ED	100	PVC (SERIES 1000)
DOWNSPOUT	DS	75	PVC (SERIES 1000)
CLEANOUT	CO	100	PVC (SERIES 1000)
VENT STACK THRU ROOF/STR	VS	75	PVC (SERIES 1000)
MAIN VENT PIPE	VP	75	PVC (SERIES 1000)
VENT ABOVE CEILING	VAC	50	PVC (SERIES 1000)
SOIL STACK	SS	75	PVC (SERIES 1000)
SEWER LINE (SOIL PIPE)	SP	100	PVC (SERIES 1000)
LOOP VENT	LV	50	PVC (SERIES 1000)

SCHEDULE OF PIPE (WATER LINE)

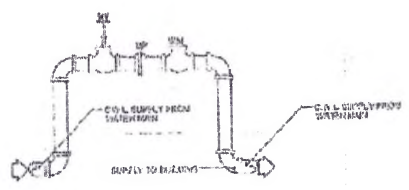
	SIZE OF PIPE (mm)	TYPE OF PIPE
FOR MAIN SUPPLY LINE	SEE PLAN	GI
FOR DISTRIBUTION LINE	SEE PLAN	PPR
FOR SUPPLY TO FIXTURES	SEE PLAN	PPR

SCHEDULE OF PIPE (WATER LINE)

	ABV	SIZE OF PIPE (mm)	TYPE OF PIPE
WATER CLOSET	WC	25	PPR
LAVATORY	LAV	20	PPR
URINAL	UR	20	PPR



3 DETAIL OF DOWNSPOUT LAYOUT
SCALE 1:10 MTS



4 INSTALLATION DETAIL OF WATER METER
SCALE NTS

PROJECT TITLE: **ROXAS PORT DEVELOPMENT PROJECT**
PORT OF ROXAS, PANGLOSS, PALAWAN

PREPARED BY: **CHRISTOPHER D. ORNELA**
Project Engineer

CHECKED BY: **JOYCE O. PANGLOSS**
Division Manager, PWD

NOTED BY: **ROLANDO L. QUERUBIN**
Division Manager, DED

RECOMMENDED BY: **RETNAPOO C. PANGLOSS**
Manager, PWD

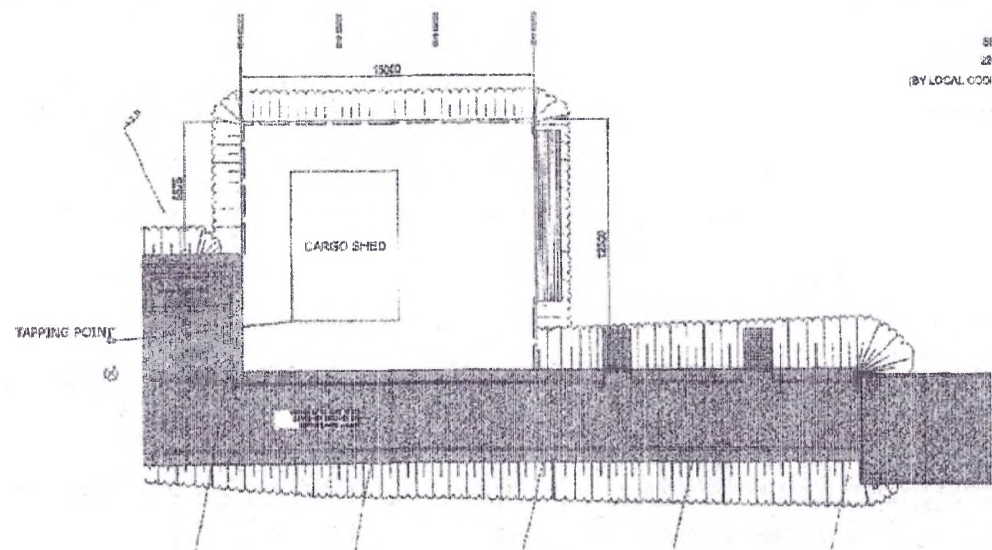
APPROVED: **CONSTANCE P. PANGLOSS, JR.**
Chief Engineer

SCALE: AS SHOWN

SHEET NO: **P-02 of 02**

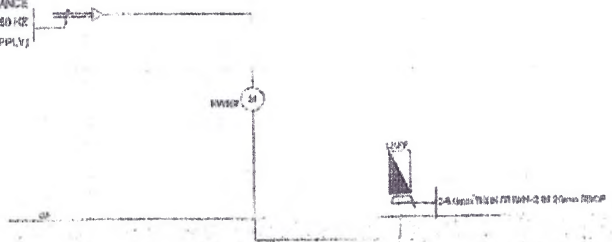
DATE: **JULY 2010**

PHILIPPINE PORTS AUTHORITY

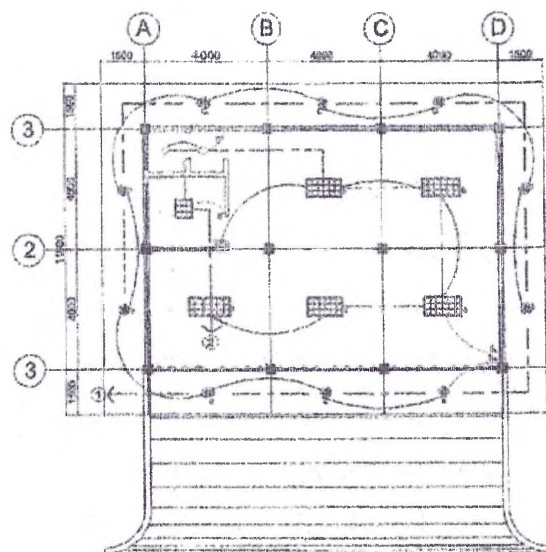


1 ELECTRICAL LAYOUT PLAN
SCALE 1:100 M

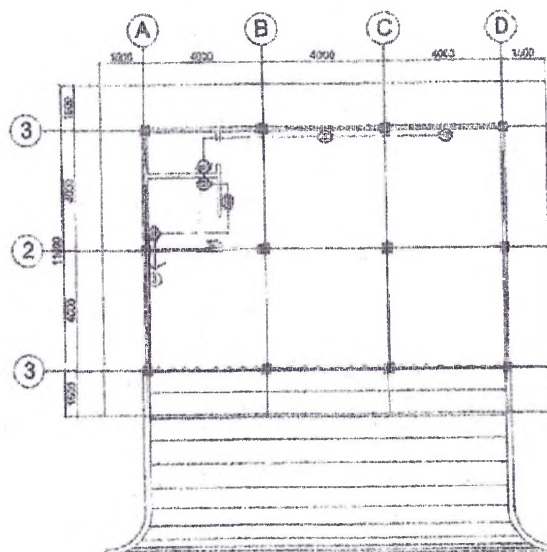
SERVICE ENTRANCE
220V, 1 PHASE, 60 HZ
(BY LOCAL CO-OPERATIVE SUPPLY)



4 SINGLE LINE DIAGRAM
SCALE 1:100 M



2 LIGHTING LAYOUT
SCALE 1:100 M



3 POWER LAYOUT
SCALE 1:100 M

SCHEDULE OF LOAD

REMARKS	BRANCH Ckt No	LT CO	LOAD DESCRIPTION	VOLT	CURRENT	WIRE (mm ²) (TRAIL/THANKS)	COTERLY (mm ²) (TRAIL/THANKS)	CKT BKR PROTECTION
	1	10	LIGHTING	220	1.70	2.33	20 (16) 3m	20AT-2P
	2	6	LIGHTING	220	2.24	2.36	20 (16) 3m	20AT-2P
	3	6	DUPLEX CONVENIENCE OUTLET	220	4.81	2.00 x 1.40	20 (16) 3m	20AT-2P
	4		SPARE		5.00			20AT-2P
MAIN DISCONNECT PANEL (MDP)				220	14.00	3.00	20 (16) 3m	20AT-2P

COMPUTATION:
TOTAL CURRENT (I)
= 14.00 AMP
BRANCH CKT PROTECTION:
I = 14.00 x 1.25 = 17.5 AMP (MDP)
CIRCUIT BREAKER (CB)
= 17.5 AMP
MAIN DISCONNECTED PANEL (MDP) 20AT-2P 100AMP, 220V, 60HZ
PENDING WBS
LSP: 24.00mm THRU 2 IN 20mm RCP

GENERAL NOTES:

ALL WORKS SHALL BE IN ACCORDANCE WITH THE PLANS & SPECIFICATION AND SHALL COMPLY WITH THE PROVISION OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE, LAW, ORDINANCES, RULES AND REGULATIONS OF LOCALITY HAVING JURISDICTION OVER THE PROJECT REQUIREMENTS OF POWER COMPANY CONCERNED.

VOLTAGE SHALL BE 220 VOLTS, 60 HERTZ, THREE PHASE, 3 - WIRES.

THE JOB SHALL BE EXECUTED IN THE MOST THOROUGH MANNER, EMPLOYING STANDARD TOOLS, EQUIPMENT AND ENGINEERING GOOD PRACTICES.

ALL MATERIALS TO BE USED SHALL BE NEW AND APPROVED TYPE FOR BOTH PURPOSES AND LOCATION INTENDED.

ALL ELECTRICAL WORKS HEREIN SHALL BE DONE UNDER THE DIRECT SUPERVISION OF DULY LICENSED ELECTRICAL ENGINEER.

MOUNTING HEIGHT:

1. LIGHT SWITCH—1.40M ABOVE FLOOR FINISH
2. DUPLEX CONVENIENCE OUTLET—0.90M ABOVE FLOOR FINISH
3. TELEPHONE OUTLET—0.90M ABOVE FLOOR FINISH OR AS REQUIRED
4. PANEL BOARD & CABINET—1.80M ABOVE FLOOR FINISH OR AS REQUIRED

LEGEND:

- 2 - 35 WATT T-8 GRID FIXTURE WITH ELECTRONIC BALLAST FLUORESCENT TUBES, 220 VOLT WITH ALUMINUM REFLECTOR LAMPS, SURFACE MOUNTED TYPE
- 1 - 18 WATT T-8 GRID FIXTURES FLUORESCENT TUBES, 220 VOLT WITH ALUMINUM REFLECTOR LAMPS, RECESSED MOUNTED TYPE
- VERTICAL DOWNLIGHT RECESSED MTD TYPE WITHOUT GLASS COVER 5" DIA. LAMP HOLDER, 220V, E27, 10 WATT LED BULB, WARM WHITE
- VERTICAL DOWNLIGHT SURFACE MTD TYPE WITHOUT GLASS COVER 6" DIA. LAMP HOLDER, 220V, E27, 10 WATT LED BULB, WARM WHITE
- 3 PRONG DUPLEX CONVENIENCE OUTLET WITH GROUNDING
- ONE GANG SWITCH, 10A
- PANEL BOARD
- SERVICE ENTRANCE
- LIGHTING PANEL BOARD
- GROUND
- CIRCUIT BREAKER
- CONCRETE PEDESTAL POST

SCALE: 1/8" = 1'-0"
SHEET NO: E-01 of 01
DATE: JULY 2019

SHEET CONTENTS:
ELECTRICAL LAYOUT PLAN
POWER LAYOUT
SCHEDULE OF LOADS
LIGHTING LAYOUT
SINGLE LINE DIAGRAM

APPROVED:
CONSTANTIN FARRAS JR.
Asst. Gen. Manager-EO

RECOMMENDED BY:
REYNOLD C. MANAPRA
Manager-PROG

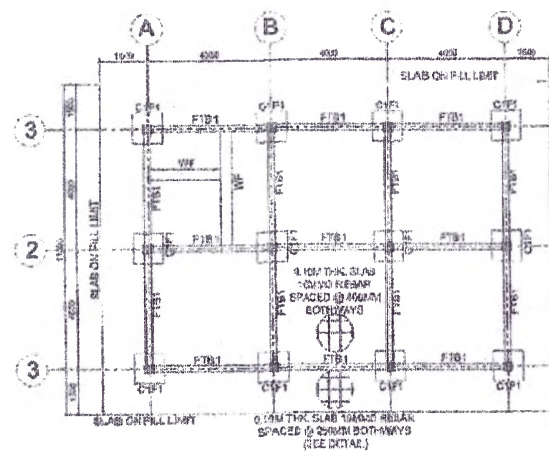
NOTED BY:
JOVENILO C. PAIRAG
Division Manager, DED

CHECKED BY:
JOVENILO C. PAIRAG
Division Manager, DED

PREPARED BY:
CHRISTOPHER C. YORRIMA
Project Engineer

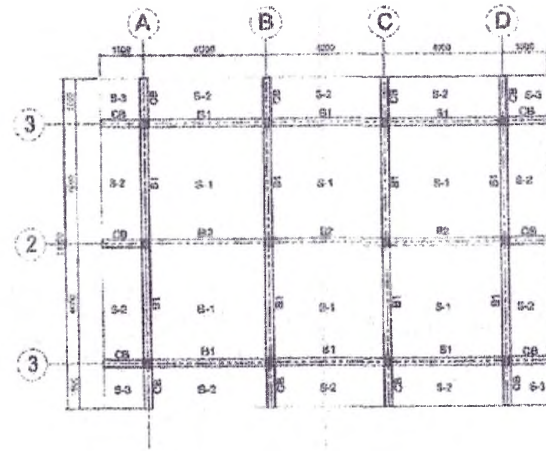
PROJECT TITLE: ROXAS PORT DEVELOPMENT PROJECT
PORT OF ROXAS

PHILIPPINE PORT AUTHORITY



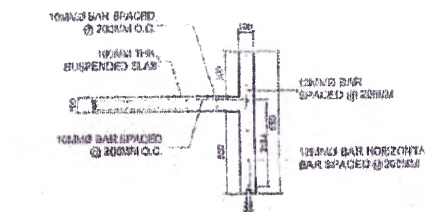
FOUNDATION PLAN

SCALE 1:100 M



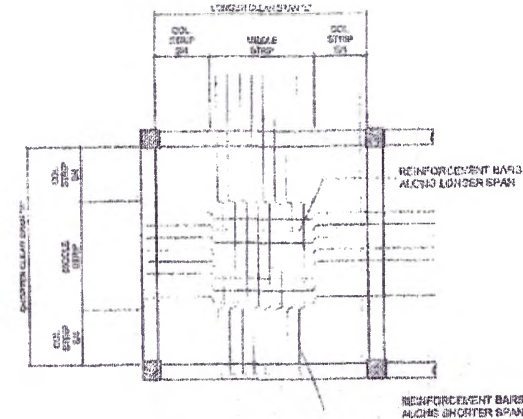
ROOF DECK FRAMING PLAN

SCALE 1:100 M



PARAPET WALL STRUCTURAL DETAILS

SCALE 1:20

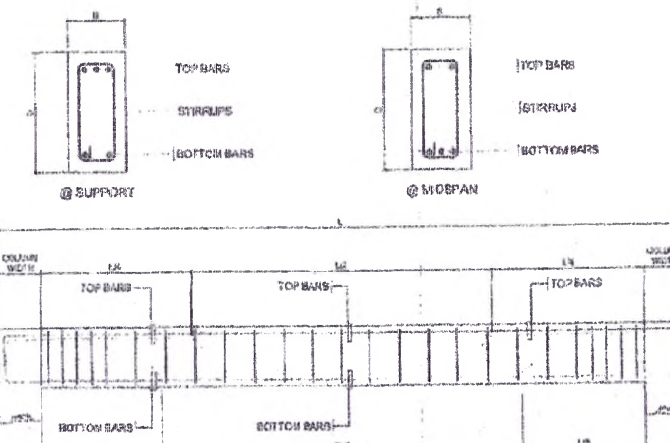


TYPICAL DETAIL OF SLAB

SCALE NTS

SLAB SCHEDULE:

NAME	THK	REINFORCEMENTS (10mm)			
		AT SUPPORT (L)	AT MIDSPAN (L)	AT SUPPORT (R)	AT MIDSPAN (R)
S1	100	TS @ 100	BS @ 100	TS @ 100	BS @ 100
S2	100	TS @ 200	BS @ 200	TS @ 200	BS @ 200
S3	100	TS @ 200	BS @ 200	TS @ 200	BS @ 200

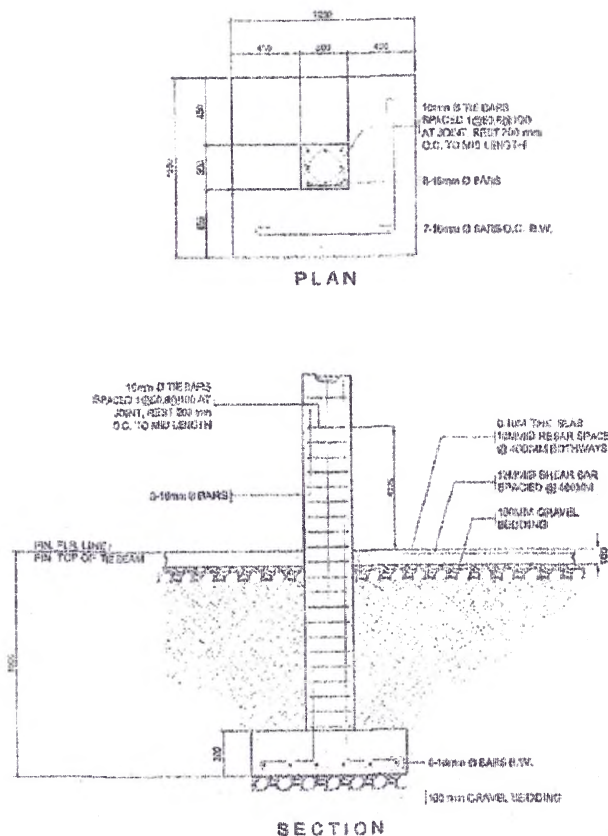


TYPICAL DETAIL OF SECTION OF BEAM

SCALE NTS

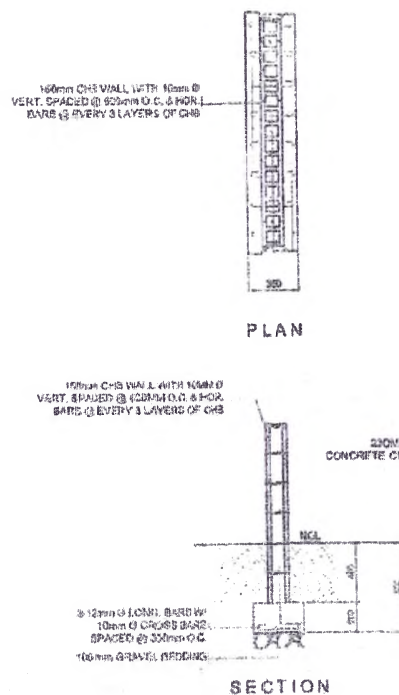
BEAM SCHEDULE:

NAME	WIDTH (mm)	DEPTH (mm)	REINFORCEMENTS			
			AT SUPPORT	AT MIDSPAN	AT SUPPORT	STIRRUP
FTB1	200	300	3-10mm TS 2-10mm BS	2-10mm TS 3-10mm BS	3-10mm TS 2-10mm BS	10mm BS SPACED @ 1 @ 50, 4 @ 100 REST @ 200 mm O.C. TO MID LENGTH
B1	250	350	4-10mm TS 3-10mm BS	3-10mm TS 4-10mm BS	4-10mm TS 3-10mm BS	10mm BS SPACED @ 1 @ 50, 4 @ 100 REST @ 200 mm O.C. TO MID LENGTH
B2	250	350	4-10mm TS 3-10mm BS	3-10mm TS 4-10mm BS	4-10mm TS 3-10mm BS	10mm BS SPACED @ 1 @ 50, 4 @ 100 REST @ 200 mm O.C. TO MID LENGTH
B3	250	350	4-10mm TS 3-10mm BS	3-10mm TS 4-10mm BS	4-10mm TS 3-10mm BS	10mm BS SPACED @ 1 @ 50, 4 @ 100 REST @ 200 mm O.C. TO MID LENGTH



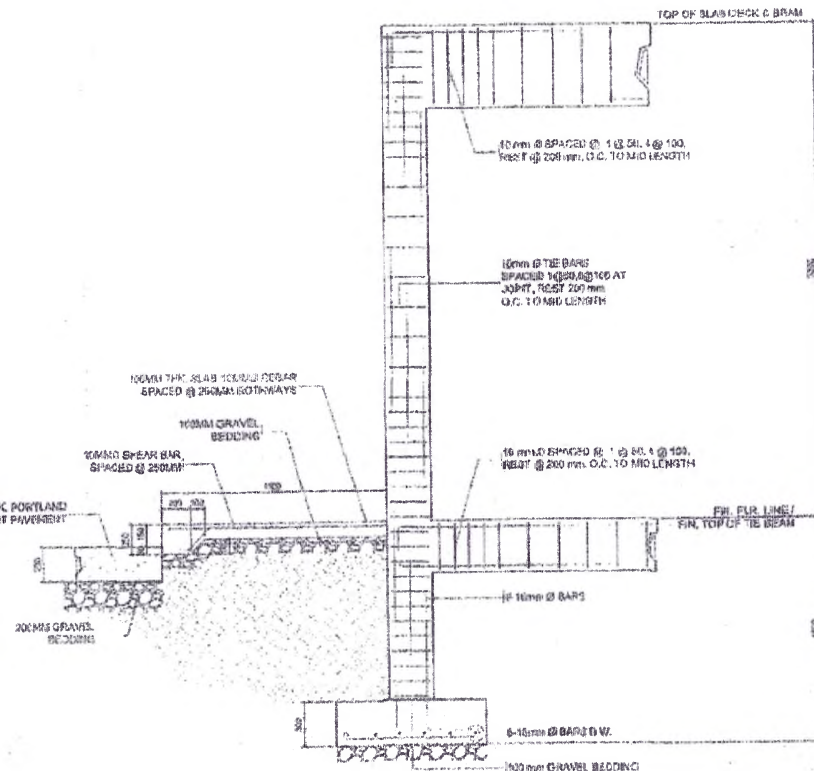
DETAIL OF COLUMN / COLUMN FOOTING

SCALE 1:20 M



WALL FOOTING (WF) DETAIL

SCALE 1:20 M



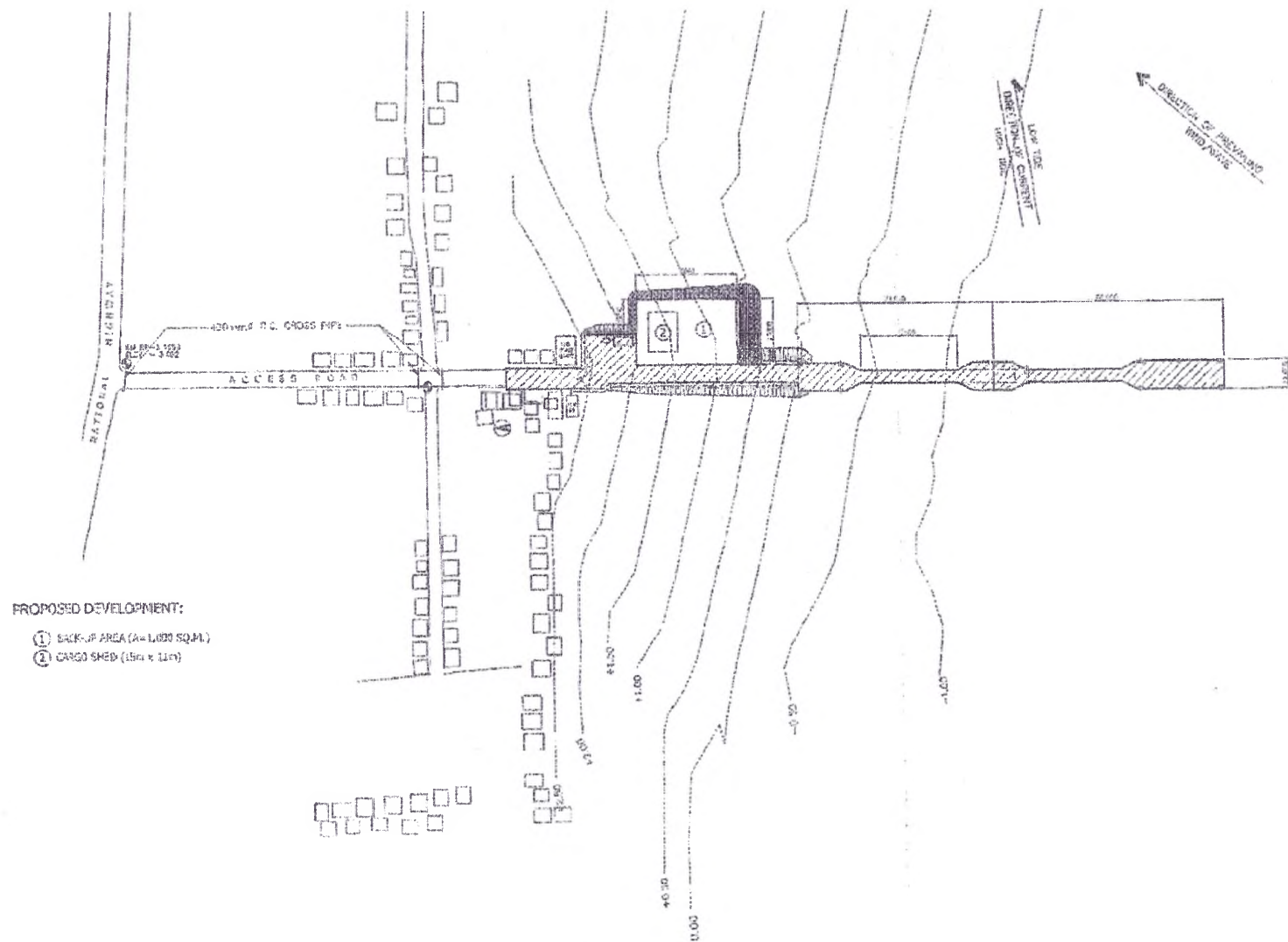
DETAIL OF REINFORCEMENT BARS

SCALE 1:20 M

SCALE: AS SHOWN
SHEET NO. S-01 of 01
DATE: JULY 2019

SHEET CONTENTS:
FOUNDATION PLAN
ROOF DECK FRAMING PLAN
DETAIL OF COLUMN / COLUMN FOOTING
DETAIL OF WALL FOOTING
TYPICAL DETAIL OF SLAB
TYPICAL DETAIL OF SECTION OF BEAM

PROJECT TITLE: ROXAS PORT DEVELOPMENT PROJECT
PORT OF ROXAS
APPROVED BY: ROXAS, PALAWAN
RECOMMENDED BY: ROLANDOT, QUEZON
NOTED BY: JENNIFER C. PARRAS, JR.
CHECKED BY: JENNIFER C. PARRAS, JR.
PREPARED BY: CHRISTOPHER CRUZAL
PHILIPPINE PORTS AUTHORITY



DEVELOPMENT PLAN
SCALE 1:1000



GENERAL NOTES :

ALL DIMENSIONS ARE IN MILLIMETER AND ELEVATIONS ARE IN METERS BASED FROM MSLW ELEV. 0.00 UNLESS OTHERWISE SPECIFIED.

VERIFY ALL REQUIRED DIMENSIONS AND ELEVATIONS OF EXISTING STRUCTURES IN THE FIELD.

THE MAXIMUM SIZE OF COARSE AGGREGATES SHALL NOT BE LARGER THAN ONE FIFTH OF THE NARROWEST DIMENSION OF THE BEAMS, NOR ONE THIRD OF THE DEPTH OF SLABS, NOR THREE QUARTERS OF THE MINIMUM CLEAR DISTANCE BETWEEN REINFORCING BARS.

PROVIDE CONCRETE COVERING FOR ALL REINFORCING STEEL AS FOLLOWS :

FOR SLABS, BEAMS AND GIRDERS 100mm ON TOP AND 75mm ON UNDERSIDE, MEASURED FROM THE OUTER SURFACE OF THE CONCRETE TO THE NEAREST SURFACE OF THE STEEL. CHAMFER THE EDGES OF BEAMS, PILE CAPS, CURTAIN WALLS, R.C. CURB AND ALL OTHER PARTS OF THE SUPERSTRUCTURE BY AT LEAST 25mm.

SPICES FOR MAIN BARS AT CRITICAL SECTION IF FOUND NECESSARY SHALL BE PROVIDED A MINIMUM LAP OF 45 BAR DIAMETER. ALL STEEL REINFORCEMENT SHALL BE DEFORMED BARS (fy = 306 MPa) UNLESS OTHERWISE SPECIFIED.

SPICE BARS MAY BE JOINED TOGETHER BY FLYST ELECTRIC WELD IN WHICH CASE THE LAP SHALL BE AT LEAST 75mm. WELDING SHALL BE CONTINUOUS THROUGHOUT THE LENGTH OF THE LAP.

ALL INTERSECTION OF REINFORCING BARS MAY BE ELECTRICALLY SPOT WELDED IN LIEU OF TANG THEM WITH 60 WIRE WELDING ELECTRODES SHALL BE OF SHEETED AND TYPE HEAVILY COATED WITH CLASSIFICATION E60010 OR E611 OF THE AMERICAN WELDING SOCIETY AND SHALL BE SUITABLE FOR THE POSITIONS AND OTHER CONDITIONS OF WELDING. THE WELDING OF STEEL REINFORCEMENTS ARE NOT TO BE TAKEN ON CENTER OF BARS. BAR DETAILS ARE NOT TO SCALE. PROVIDE HOOKS AT OUTER ENDS OF TOP BARS AND AT OUTER ENDS OF BARS. HOOKS OF BARS SHALL HAVE A MINIMUM DIAMETER OF 4 TIMES THE DIAMETER ON SLOES OF BARS. DRAIN AND AIR HOLES SHALL BE PROVIDED AS INDICATED IN THE PLAN.

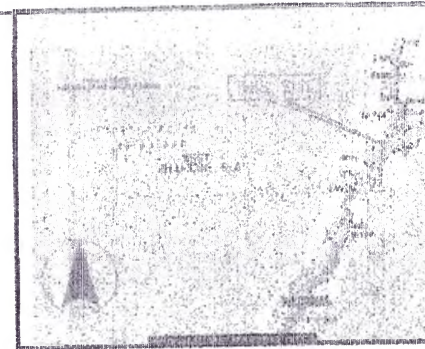
CONCRETE TO BE USED SHALL BE 24 MPa (3,500 psi) UNLESS OTHERWISE SPECIFIED.

ROCKS TO BE USED SHALL HAVE A MINIMUM SPECIFIC GRAVITY OF 2.00, ANGULAR IN SHAPE, HARD, DURABLE AND NOT EASILY DISINTEGRATE UNDER LONG EXPOSURE TO SEA WATER.

ALL STRUCTURAL STEEL SHALL BE ASTM A-36 OR SS 3101.

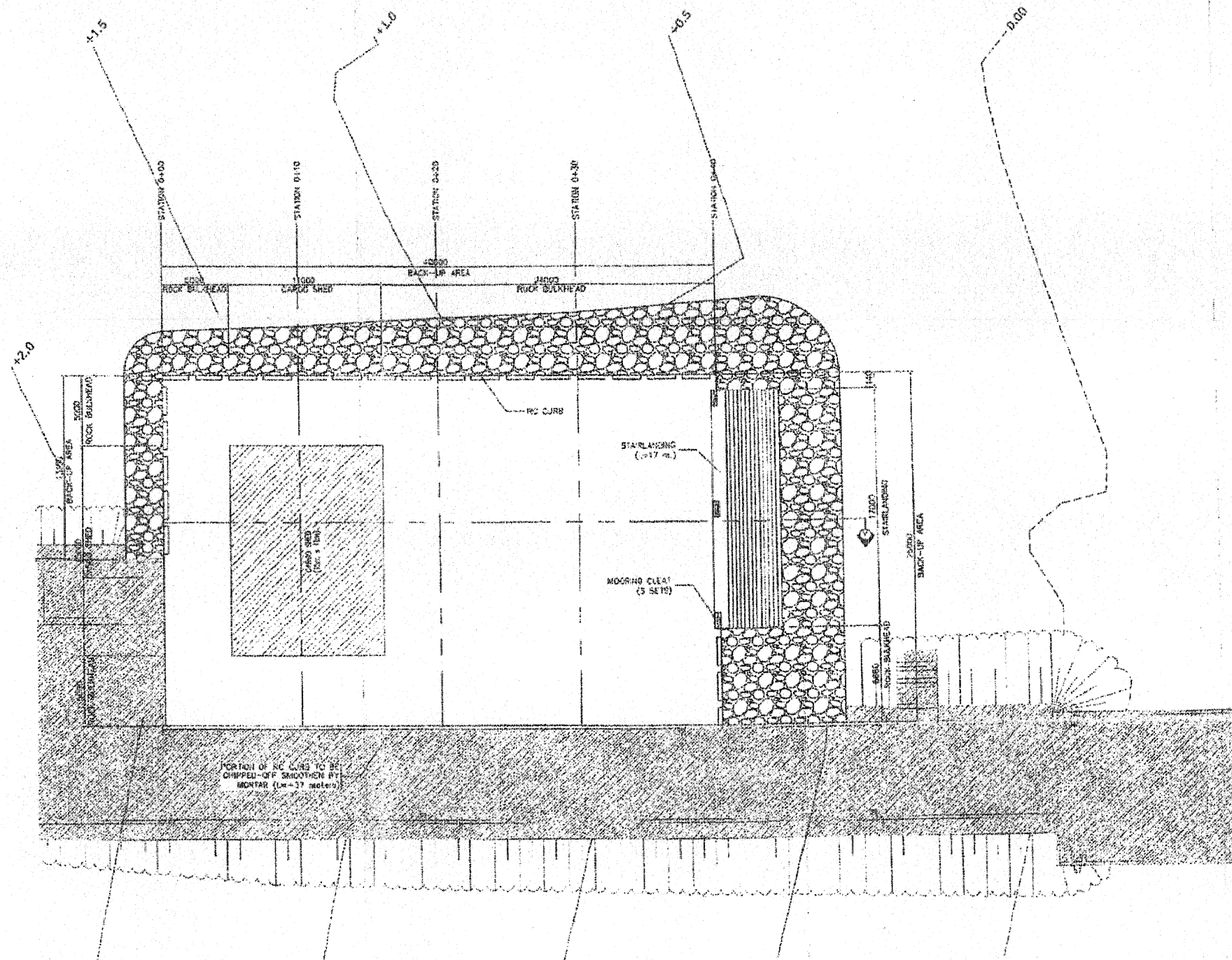
LIST OF DRAWINGS:

- 1 OF 16 DEVELOPMENT PLAN, VICINITY MAP, GENERAL NOTES, LIST OF DRAWINGS
 - 2 OF 16 GENERAL PLAN
 - 3 OF 16 STATION 0+00, STATION 0+10, STATION 0+20
 - 4 OF 16 STATION 0+30, SECTION Y-Y
 - 5 OF 16 LAYOUT OF SLOTTED R.C. CURB, DETAIL OF PAYMENT JOINT, DETAIL OF R.C. CURB @ ROCK BULKHEAD, TYPICAL REINFORCEMENT OF NUCHING CLEAT, STAIRLANDING DETAIL
 - 6 OF 16 PAYMENT LAYOUT, DRAINAGE PLAN
- ANNEX : PHOTOGRAPHIC TOPOGRAPHIC SURVEY



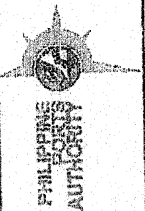
SCALE	AS SHOWN
	SHEET NO. 1 OF 5
DATE	JULY 2015
SHEET CONTENTS	DEVELOPMENT PLAN
	GENERAL NOTES
PROJECT TITLE	ROXAS PORT DEVELOPMENT PROJECT
	PORT OF ROXAS
PREPARED BY	CHRISTOPHER H. ORNUM
	Project Engineer A
CHECKED BY	JOVENICO C. PALMAG
	Division Head, PAD
NOTED BY	ROLANDO T. QUERAN
	Division Head, DLO
RECOMMENDED BY	REYANCO D. PARAFINA
	Manager, PPID
APPROVED	CONSTANTINE D. FARRAS JR.
	Asst. Gen. Manager - EO





GENERAL PLAN
SCALE 1:150

SCALE 1:150



PROJECT TITLE:

ROXAS
PORT OF ROXAS

ROXAS PORT DEVELOPMENT PROJECT
ROXAS, PALAWAN
PORT OF ROXAS

• GENERAL PLAN

2744

REPORTS BY

AS E
SHEET NO.

SHEET NO. 13755

STATE

STATE

PREPARED BY:

CHRISTOPHER M. CRONIN

2010 RELEASE UNDER E.O. 14176

В. В. ВАСИЛЬЕВ

JOVENIO C. PAIÑAG
Filiación al PIR

and the 4th and 5th years of the 1990s.

NOTED BY: 6

ROLANDO T. GUERRA
Division 147, NED

Figure 1

RECOMMENDED BY.

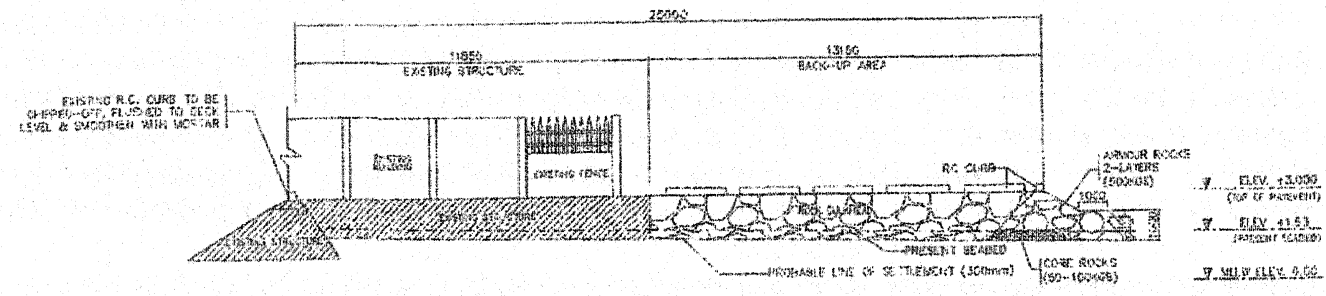
26
REYNARD G. PARAFINA
Manned. PFUD

[illegible]

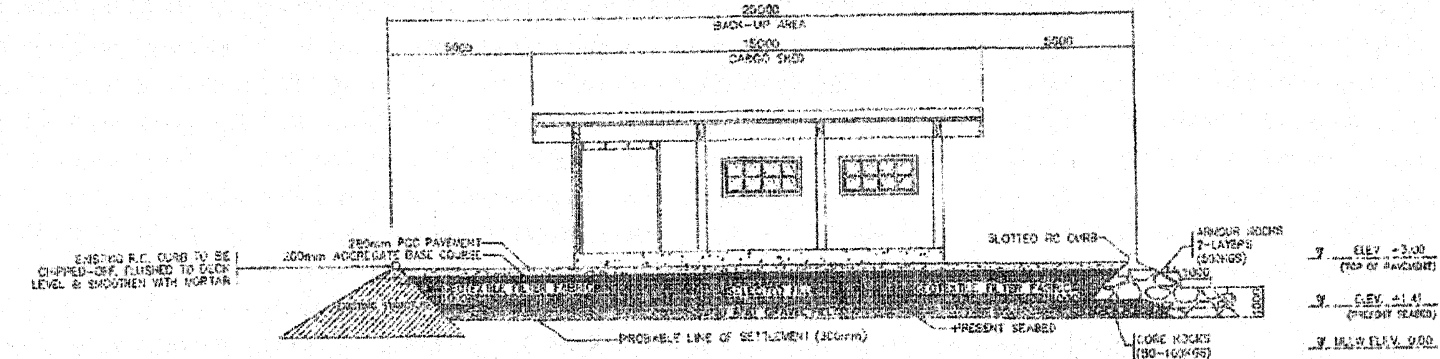
APPROVED.

CONSTANTINE FARINAS JR.
Asst. Gen. Manager - EO

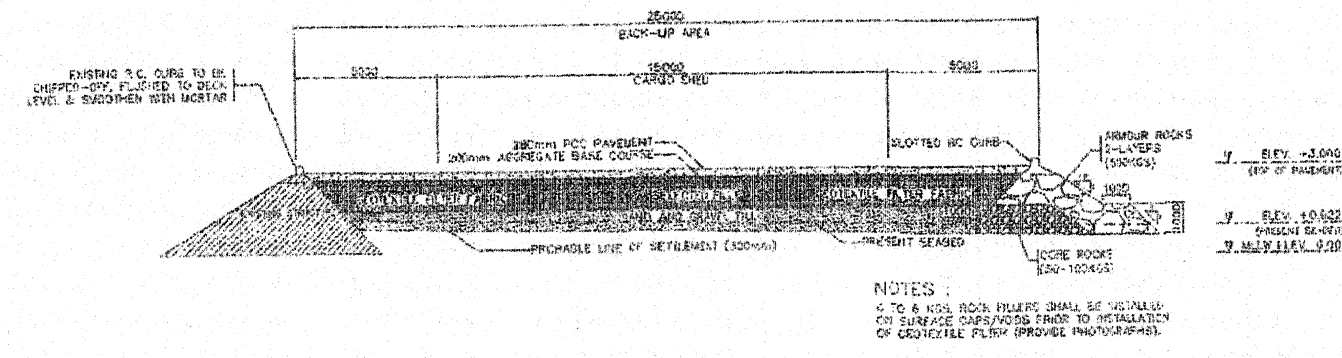
1. *Journal of the American Medical Association*, 1997; 277: 1033-1038.



STATION 0+000
SCALE 1:100



STATION 0+010
SCALE 1:100

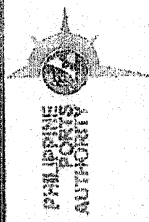


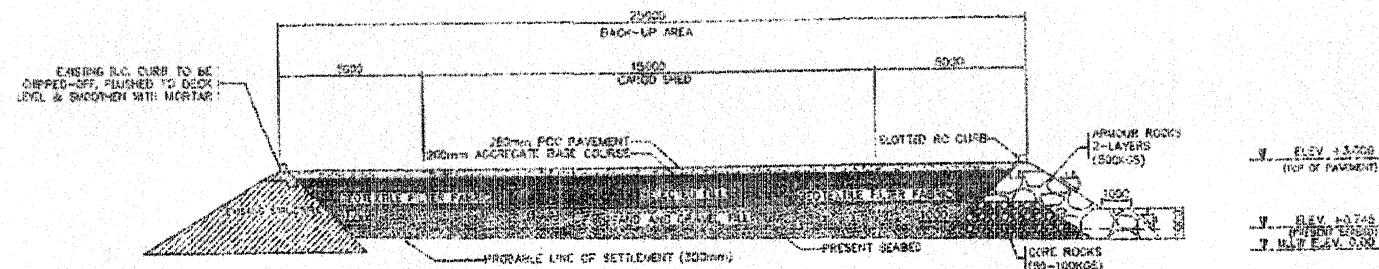
STATION 0+020
SCALE 1:100

NOTES:
4 TO 6 NOS. ROCK FILTERS SHALL BE INSTALLED ON SURFACE CAP/NOSE PRIOR TO INSTALLATION OF GEOTEXTILE FILTER (PROVIDE PHOTOGRAPHS)

NOTES:
4 TO 6 NOS. ROCK FILTERS SHALL BE INSTALLED ON SURFACE CAP/NOSE PRIOR TO INSTALLATION OF GEOTEXTILE FILTER (PROVIDE PHOTOGRAPHS)

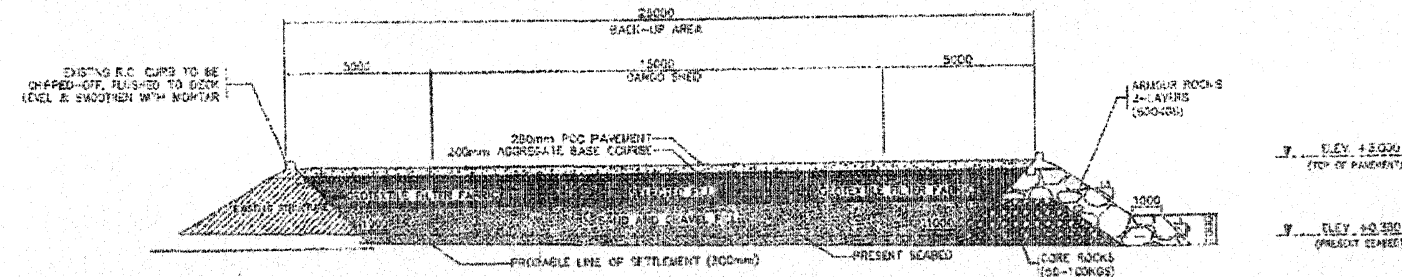
PROJECT TITLE: ROXAS PORT DEVELOPMENT PROJECT		SCALE: AS SHOWN
PORT OF ROXAS		SHEET NO. 3 OF 6
DATE: JULY 2016		
SHEET CONTENTS:		
REVISIONS 1. REVISIONS 2. REVISIONS 3. REVISIONS		
APPROVED BY:	RECOMMENDED BY:	NOTED BY:
APPROVED BY: [Signature] ROXAS PORT DEVELOPMENT PROJECT ASST. GEN. MGR. - EO	RECOMMENDED BY: [Signature] ROXAS PORT DEVELOPMENT PROJECT MANAGER - PD	NOTED BY: [Signature] ROXAS PORT DEVELOPMENT PROJECT DIVISION MGR. - PD
CHECKED BY:	PREPARED BY:	
CHECKED BY: [Signature] JOYCE C. PALING DIVISION MGR. - PD	PREPARED BY: [Signature] CHRISTOPHER H. ORTIZ CIVIL ENGINEER - A	



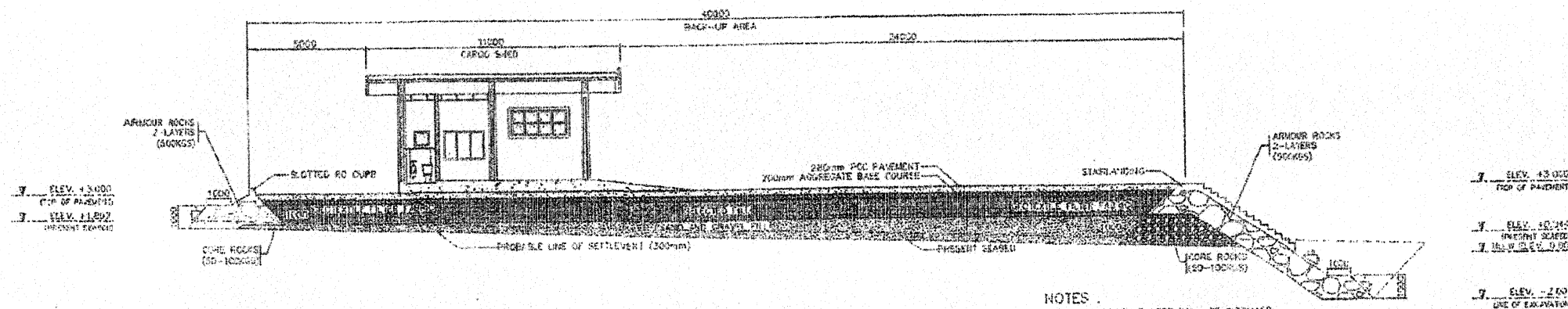


NOTES:
4 TO 8 KGS. ROCK FILTERS SHALL BE INSTALLED ON SURFACE GAPS/VIDS PRIOR TO INSTALLATION OF GEOTEXTILE FILTER (PROVIDE PHOTOGRAPHS).

STATION 0+030
SCALE 1:100



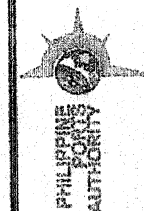
STATION 0+040
SCALE 1:100

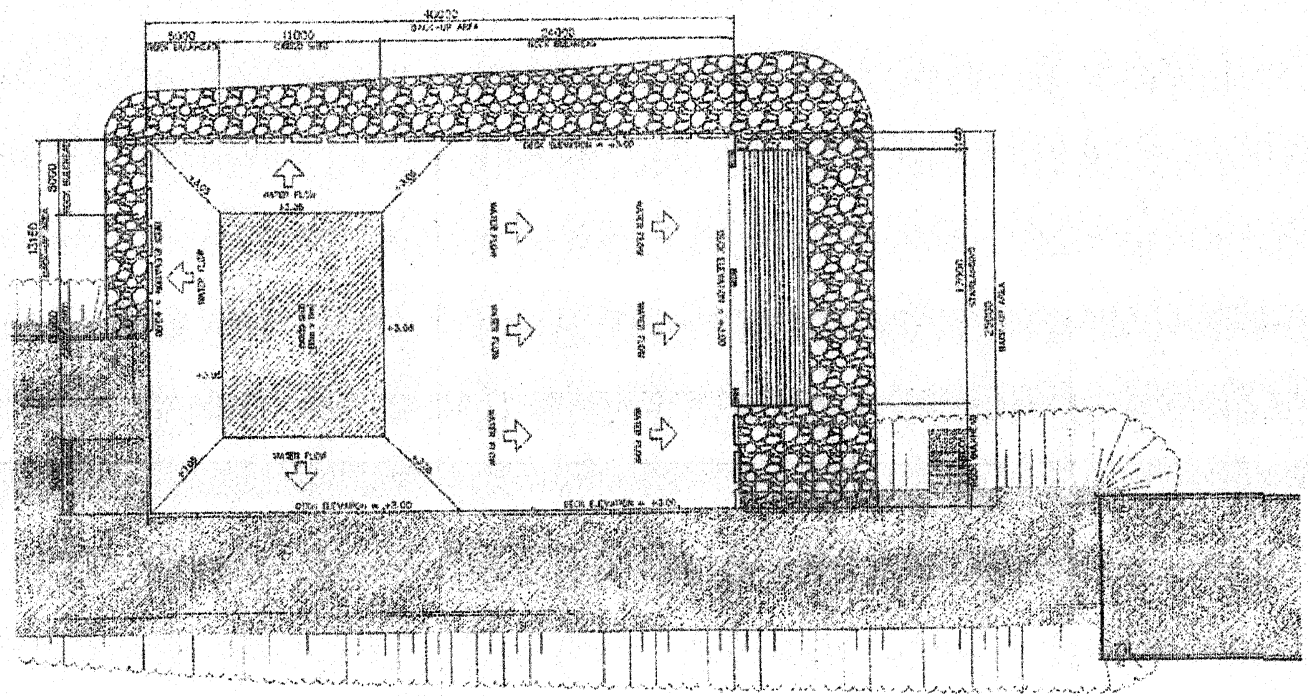


NOTES:
4 TO 8 KGS. ROCK FILTERS SHALL BE INSTALLED ON SURFACE GAPS/VIDS PRIOR TO INSTALLATION OF GEOTEXTILE FILTER (PROVIDE PHOTOGRAPHS).

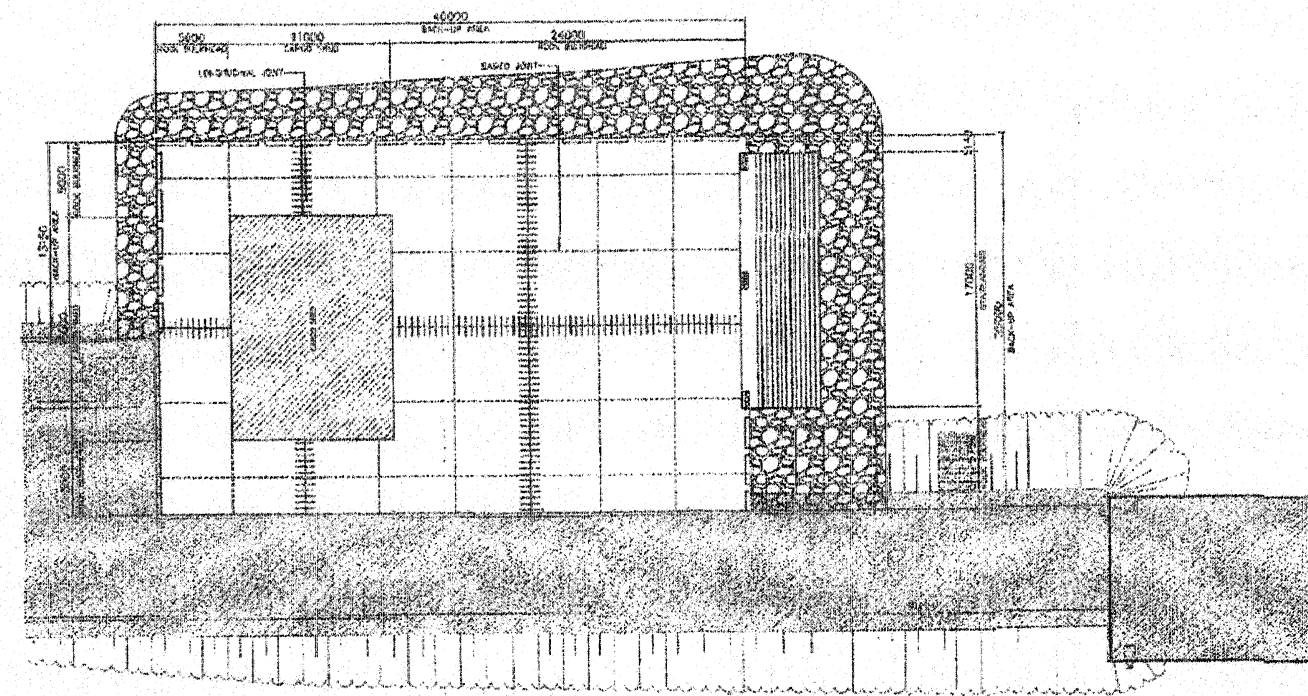
SECTION Y-Y
SCALE 1:100

SCALE	AS SHOWN
SHEET NO.	4 OF 8
DATE	JULY 2019
SHEET CONTENT:	STATION 0+030 STATION 0+040 SECTION Y-Y
PROJECT TITLE:	ROXAS PORT DEVELOPMENT PROJECT PORT OF ROXAS
PREPARED BY:	CHRISTOPHER N. CRIVELLO Principal Engineer - A
CHECKED BY:	JOSEPH C. PILLAY Division Engineer - A
NOTED BY:	ROBERT O. QUERUBIN Division Engineer - B
RECOMMENDED BY:	ROBERT O. QUERUBIN Division Engineer - B
APPROVED:	CONCEPCION P. PARAS JR. Chief Civil Engineer - EO



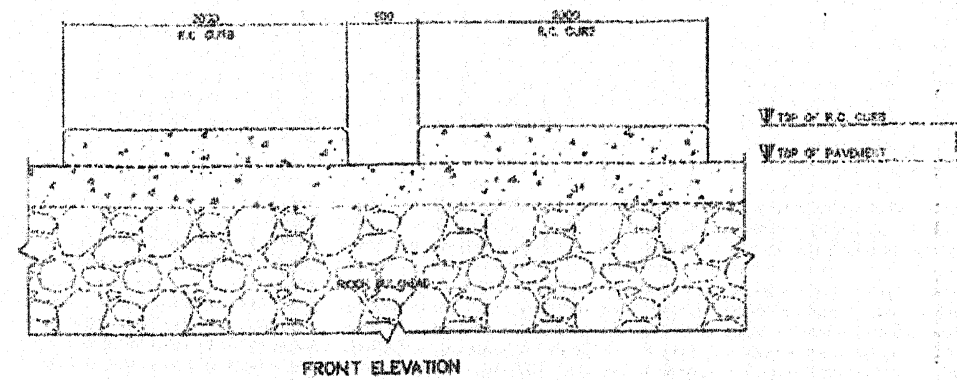


DRAINAGE PLAN
SCALE 1:200

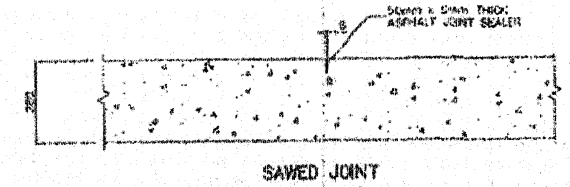
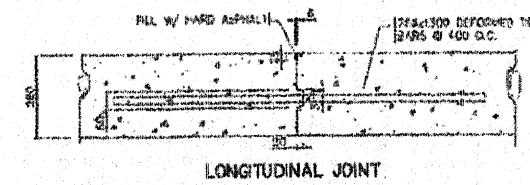
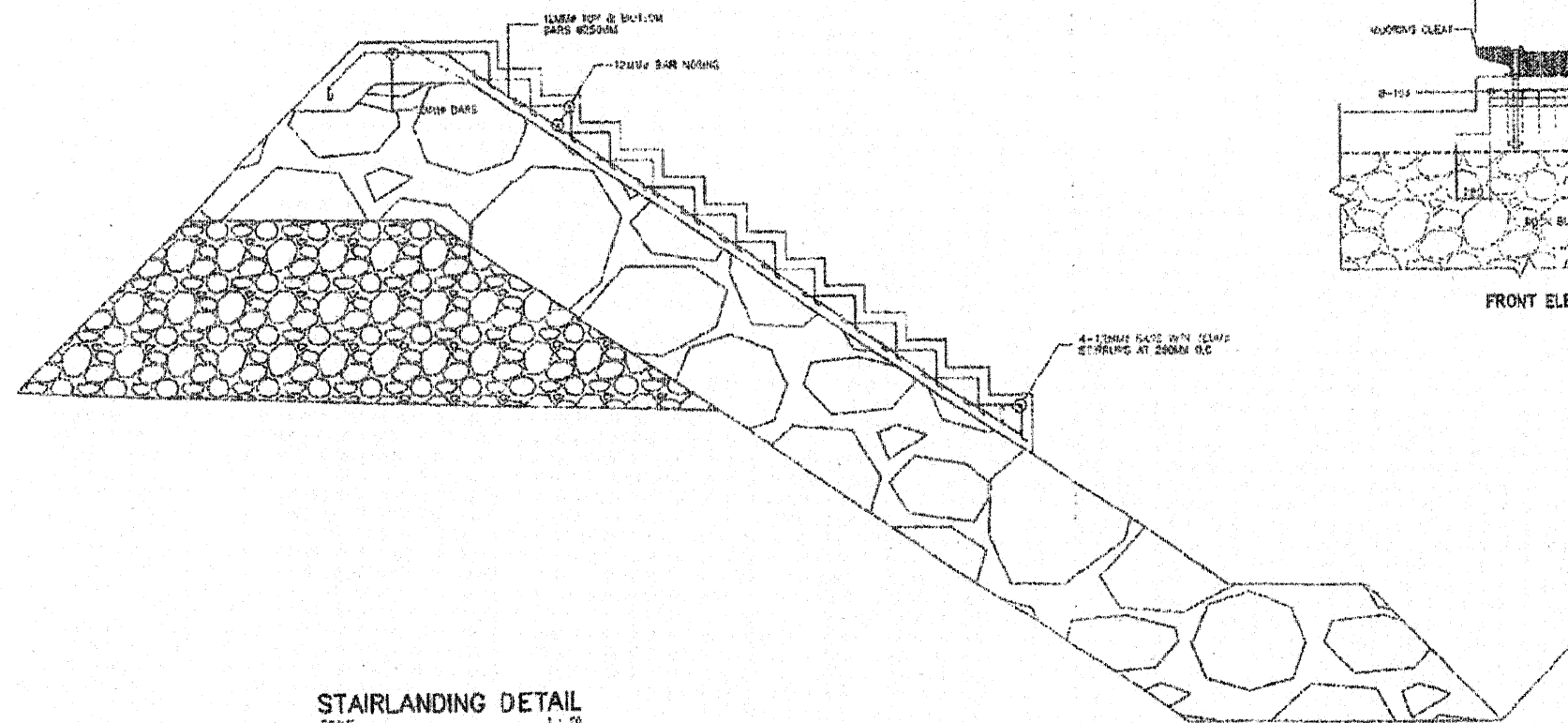


PAVEMENT LAYOUT
SCALE 1:200

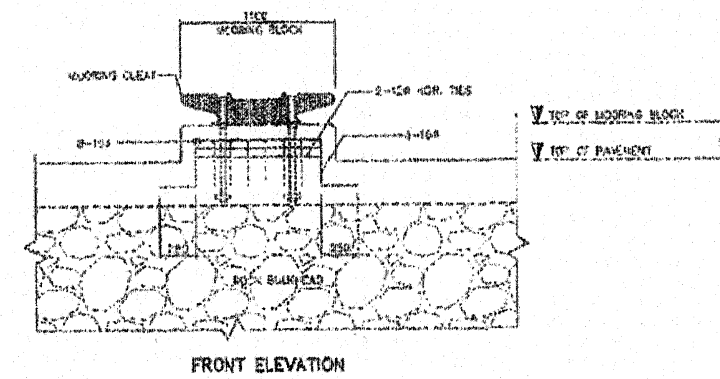
 PHILIPPINE PORTS AUTHORITY	PROJECT TITLE: ROXAS PORT DEVELOPMENT PROJECT PORT OF ROXAS				SHEET CONTENTS: • DRAINAGE PLAN • PAVEMENT LAYOUT		SCALE: AS SHOWN
	PREPARED BY: CHRISTOPHER ORRUM Principal Engineer A	CHECKED BY: JOVENECIO C. PALMAG Division Eng. PWD	NOTED BY: ROSSATO T. QUERUBIN Division Mgr. DED	RECOMMENDED BY: REYNARD P. MARAFIN Marasana, PWD	APPROVED: CHRISTOPHER ORRUM Asst. Chief Engineer - EO	SHEET NO. 2 OF 4	DATE JULY 2011



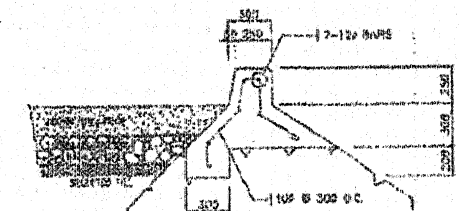
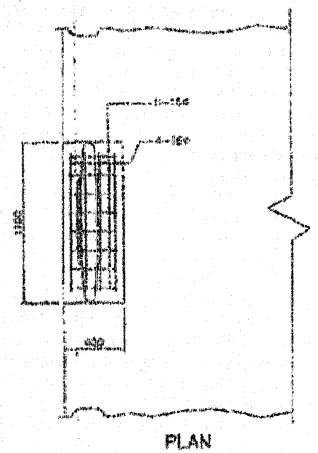
LAYOUT OF SLOTTED R.C. CURB
SCALE 1" = 20'



DETAIL OF PAVEMENT JOINT
SCALE 1" = 10'



TYPICAL REINFORCEMENT OF MOORING CLEAT



Section VIII. Bill of Quantities

SUMMARY OF BILL OF QUANTITIES
 DOTr-LFP-PLW-01-2020 ROXAS PORT DEVELOPMENT PROJECT
 PORT OF ROXAS, PALAWAN

NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4)x(5)
BILL NO. I BILL NO. II BILL NO. III	GENERAL EXPENSES BACK-UP AREA WITH STAIRLANDING CONSTRUCTION OF CARGO SHED			₱	₱
TOTAL BILL FOR THE CONTRACT					₱

Bidder's Representative _____

BILL OF QUANTITIES
 DOTr-LFP-PLW-01-2020 ROXAS PORT DEVELOPMENT PROJECT
 PORT OF ROXAS, PALAWAN

NO. (1)	DESCRIPTION OF WORK (2)	UNIT (3)	QTY. (4)	UNIT PRICE (Pesos) (5)	AMOUNT (Pesos) (4)x(5)
BILL NO. I	GENERAL EXPENSES				
1.01	Mobilization, demobilization and cleaning	lot	1	₱	₱
1.02	Rental of temporary site office and residence for the Engineer and staff	mo.	7		
1.03	Maintain temporary site office and residence for the Engineer and staff	mo.	7		
1.04	Provide construction safety and health program in the execution of the project	mo.	7		
TOTAL FOR BILL NO. I					₱

Bidder's Representative _____

BILL OF QUANTITIES

DOTr-LFP-PLW-01-2020 ROXAS PORT DEVELOPMENT PROJECT
PORT OF ROXAS, PALAWAN

NO.	DESCRIPTION OF WORK	UNIT	QTY.	UNIT PRICE (Pesos)	AMOUNT (Pesos)
(1)	(2)	(3)	(4)	(5)	(4)x(5)
BILL NO. II	BACK-UP AREA WITH STAIR LANDING				
2.01	Removal/chipped off existing R.C. Curb	l.m.	37	₱	₱
2.02	Excavation along the containment of stair landings and access road	cu.m.	351		
2.03	Supply and place 2-layer of 500kgs. Armour rocks	cu.m.	515		
2.04	Supply and place 50-100 kgs. Core rocks	cu.m.	253		
2.05	Supply and install geotextile fabric	sq.m.	485		
2.06	Supply and place sand and gravel fill	cu.m.	592		
2.07	Supply, spread and compact selected fill	cu.m.	489		
2.08	Supply and place 3,500 PSI concrete for stair landing, mooring block and R.C. curb	cu.m.	47		
2.09	Supply and install steel reinforcement for stair landing, mooring block and R.C. curb	kg.	2,240		
2.10	Supply, spread and compact aggregate base course (CBR>80)	cu.m.	183		
2.11	Construct Portland cement concrete pavement (280mm thick), including asphalt sealer and dowel bars for construction joint	sq.m.	777		
2.12	Supply and install mooring cleat including accessories	no.	3		
TOTAL FOR BILL NO. II					₱

Bidder's Representative _____

BILL OF QUANTITIES
DOTr-LFP-PLW-01-2020 ROXAS PORT DEVELOPMENT PROJECT
PORT OF ROXAS, PALAWAN

NO.	DESCRIPTION OF WORK	UNIT	QTY.	UNIT PRICE (Pesos)	AMOUNT (Pesos)
(1)	(2)	(3)	(4)	(5)	(4)x(5)
BILL NO. III	CONSTRUCTION OF CARGO SHED				
3.01	Excavation of fill materials for column footing, footing tie-beam, septic vault and catch basin and backfilling thereafter	cu.m	23	P	P
3.02	Supply and apply soil treatment	sq.m	165		
3.03	Supply, place and compact gravel bedding	cu.m.	21		
3.04	Supply and place 4,000 PSI concrete for column, footing, tie beam, wall footing, beam, slab-on-grade, roof slab and parapet	cu.m.	70		
3.05	Supply, install steel reinforcement for column footing, tie beam, wall footing, beam, slab-on-grade, roof slab and parapet	kg.	8,480		
3.06	Construct 150mm thick CHB wall and partitions	sq.m.	177		
3.07	Supply and install marine plywood ceiling	sq.m.	10		
3.08	Supply and place 13mm thick paint cement plaster finish	sq.m.	494		
3.09	Supply and apply two (2) coats of acrylic solvent base paint	sq.m.	494		

Bidder's Representative _____

3.10	Supply and apply two (2) coats of enamel paint	sq.m.	10		
3.11	Supply and apply membrane type waterproofing	sq.m.	181		
3.12	Supply and install 0.60m x 0.60m non-skid ceramic floor tiles	sq.m.	10		
3.13	Supply and install homogenous ceramic wall tiles	sq.m.	11		
3.14	Supply, fabricate, and install doors and windows including accessories	lot	1		
3.15	Supply and install toilet fixtures and accessories	lot	1		
3.16	Supply and install pipes for water line including accessories	lot	1		
3.17	Supply and install pipes for sewer line including accessories	lot	1		
3.18	Supply and install pipes for drainage line including accessories	lot	1		
3.19	Supply, deliver and install wires and cables of various sizes	lot	1		
3.20	Construct septic vault including steel reinforcement	lot	1		
3.21	Construct catch basin and manhole cover for drainage system including steel reinforcement	lot	1		
TOTAL FOR BILL NO. III					P

Bidder's Representative _____

BASIS OF PAYMENT FOR WORK ITEMS INCLUDED IN THE PROPOSAL

The work items included in the proposal including the basis of payment for each item are as follows:

BILL NO. 1 – GENERAL EXPENSES

Item 1.01 Mobilization, Demobilization and Cleaning

The quantity to be paid for shall be the actual number of minimum equipment requirement enumerated in the bid documents mobilized and demobilized. The contract lump sum price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals necessary to mobilize and demobilize all the minimum equipment requirement enumerated in the bid documents. Fifty percent (50%) of the total amount shall be payable after the mobilization activity while the remaining (50%) payable after demobilization.

Item 1.02 Rental of Temporary Site Office and Residence for the Engineer and Staff

The quantity to be paid for shall be the actual rental of temporary site office and residence for the engineer and staff. The contract unit price shall be full compensation for the provision of site office and residence for the engineer and staff within the duration of the project.

Item 1.03 Maintain Temporary Site Office and Residence for the Engineer and Staff

The quantity to be paid for shall be the actual maintenance cost of rented temporary site office and residence for the engineer and staff. The contract unit price shall be full compensation for the provision of maintenance of the temporary site office and residence of engineer and staff.

Item 1.04 Provide Construction Safety and Health Program in the Execution of the Project

The quantity to be paid for shall be the actual implementation of construction safety and health program and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals necessary to complete the implementation of the Construction Safety and Health Program, as required and approved by the Department of Labor and Employment (DOLE).

BILL NO. II – BACK-UP AREA WITH STAIR LANDING

Item 2.01 Removal/chipped off Existing R.C. Curb

The quantity to be paid for shall be the actual length in linear meters of existing R.C. Curb to be removed/chipped in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 2.02 Excavation along the Containment of Stair landings and Access Road

The quantity to be paid for shall be the actual volume in cubic meters excavation works to be done along the containment of stair landings and access road in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 2.03 Supply and Place 2-layer of 500 kgs. Armour Rocks

The quantity to be paid for shall be the actual volume in cubic meters of 2-layer of 500 kgs. armour rocks to be supplied and placed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 2.04 Supply and Place 50-100 kgs. Core Rocks

The quantity to be paid for shall be the actual volume in cubic meters of 50-100 kgs. of core rocks to be supplied and placed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 2.05 Supply and Install Geotextile Fabric

The quantity to be paid for shall be the actual area in square meters of geotextile fabric to be supplied and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 2.06 Supply and Place Sand and Gravel Fill

The quantity to be paid for shall be the actual volume in cubic meters of sand and gravel fill to be supplied and placed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 2.07 Supply, Spread and Compact Selected Fill

The quantity to be paid for shall be the actual volume in cubic meters of selected fill to be supplied, spread and compacted in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 2.08 Supply and Place 3,500 PSI Concrete for Stairlanding, Mooring Block and R.C. Curb

The quantity to be paid for shall be the actual volume in cubic meters of 3,500 psi concrete to be supplied and placed for stairlanding, mooring block and R.C. Curb in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 2.09 Supply and Install Steel Reinforcement for Stairlanding, Mooring Block and R.C. Curb

The quantity to be paid for shall be the actual weight in kilograms of steel reinforcement to be supplied and installed for stairlanding, mooring block and R.C. Curb in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 2.10 Supply, Spread and Compact Aggregate Base Course (CBR>80)

The quantity to be paid for shall be the actual volume in cubic meters of aggregate base course (CBR>80) to be supplied, spread and compacted in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 2.11 Construct Portland Cement Concrete Pavement (280mm thick), including Asphalt Sealer and Dowel Bars for Construction Joint

The quantity to be paid for shall be the actual area in square meters of portland cement concrete pavement (280mm thick) to be constructed including asphalt sealer and dowel bars for construction joint in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 2.12 Supply and Install Mooring Cleat including Accessories

The quantity to be paid for shall be the actual number of mooring cleat to be supplied and installed including accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for

furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

BILL NO. III – CONSTRUCTION OF CARGO SHED

Item 3.01 Excavation of Fill Materials for Column Footing, Footing Tie-Beam, Septic Vault and Catch Basin and Backfilling Thereafter

The quantity to be paid for shall be the actual volume in cubic meters of fill materials to be excavated for column footing, footing tie-beam, septic vault and catch basin and backfilling thereafter in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.02 Supply and Apply Soil Treatment

The quantity to be paid for shall be the actual area in square meters of soil treatment to be supplied and applied in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.03 Supply, Place and Compact Gravel Bedding

The quantity to be paid for shall be the actual volume in cubic meters of gravel bedding to be supplied, placed and compacted in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.04 Supply and Place 4,000 PSI Concrete for Column, Footing, Tie Beam, Wall Footing, Beam, Slab-on-grade, Roof Slab and Parapet

The quantity to be paid for shall be the actual volume in cubic meters of 4,000 PSI concrete for column, footing, tie beam, wall footing, beam, slab-on-grade, roof slab and parapet to be supplied and placed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.05 Supply and Install Steel Reinforcement for Column Footing, Tie Beam, Wall Footing, Beam, Slab-on-grade, Roof Slab and Parapet

The quantity to be paid for shall be the actual weight in kilograms of steel reinforcement to be supplied and installed for column footing, tie beam, wall footing, beam, slab-on-grade, roof slab and parapet to be supplied and placed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.06 Construct 150mm thick CHB wall and Partitions

The quantity to be paid for shall be the actual area in square meters of 150mm thick CHB wall and partitions to be constructed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.07 Supply and Install Marine Plywood Ceiling

The quantity to be paid for shall be the actual area in square meters of marine plywood ceiling to be supplied and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.08 Supply and Place 13mm thick Paint Cement Plaster Finish

The quantity to be paid for shall be the actual area in square meters of 13mm thick paint cement plaster finish to be supplied and placed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.09 Supply and Apply two (2) coats of Acrylic Solvent Base Paint

The quantity to be paid for shall be the actual area in square meters of two (2) coats of acrylic solvent base paint to be supplied and applied in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.10 Supply and Apply two (2) coats of Enamel Paint

The quantity to be paid for shall be the actual area in square meters of two (2) coats of enamel paint to be supplied and applied in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.11 Supply and Apply Membrane Type Waterproofing

The quantity to be paid for shall be the actual area in square meters of membrane type waterproofing to be supplied and applied in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.12 Supply and Install 0.60m x 0.60m non-skid ceramic floor tiles

The quantity to be paid for shall be the actual area in square meters of 0.60m x 0.60m non-skid ceramic floor tiles to be supplied and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.13 Supply and Install Homogenous Ceramic Wall Tiles

The quantity to be paid for shall be the actual area in square meters of homogenous ceramic wall tiles to be supplied and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.14 Supply, Fabricate, and Install Doors and Windows including Accessories

The quantity to be paid for shall be the whole lot of doors and windows to be supplied, fabricated and installed including accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.15 Supply and Install Toilet Fixtures and Accessories

The quantity to be paid for shall be the whole lot of toilet fixtures and accessories to be supplied and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.16 Supply and Install Pipes for Water Line including Accessories

The quantity to be paid for shall be the whole lot of pipes to be supplied and installed for water line including accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.17 Supply and Install Pipes for Sewer Line including Accessories

The quantity to be paid for shall be the whole lot of pipes to be supplied and installed for sewer line including accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.18 Supply and Install Pipes for Drainage Line including Accessories

The quantity to be paid for shall be the whole lot of pipes to be supplied and installed for drainage including accessories in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.19 Supply, Deliver and Install Wires and Cables of Various Sizes

The quantity to be paid for shall be the whole lot of wires and cables of various sizes to be supplied, delivered and installed in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.20 Construct Septic Vault including Steel Reinforcement

The quantity to be paid for shall be the whole lot of septic vault to be constructed including steel reinforcement in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Item 3.21 Construct Catch Basin and Manhole Cover for Drainage System including Steel Reinforcement

The quantity to be paid for shall be the whole lot of catch basin and manhole cover to be constructed for drainage system including steel reinforcement in accordance with the plans and specifications and accepted by the Engineer. The contract unit price shall be full compensation for furnishing all materials, labor, equipment, tools and incidentals expenses necessary to complete the work.

Updated: August 06, 2020

MAY 15 2020

ENGINEERING CIRCULAR NO. 41 2020

FOR THE MANAGER, PCMD
ALL PORT MANAGERS
CONCERNED CONTRACTORS

FROM THE ASSISTANT GENERAL MANAGER,
ENGINEERING OFFICE

SUBJECT SAFETY GUIDELINES FOR THE IMPLEMENTATION OF
ALL PPA (CAPEX & RM) AND DOTr TOURISM AND
SOCIAL REFORM PROJECTS DURING THE COVID-19
PUBLIC HEALTH CRISIS



Pursuant to the Proclamation No. 929, series of 2020 issued by President Rodrigo Roa Duterte, declaring a State of Calamity throughout the Philippines due to the Coronavirus Disease 2019 (COVID-19) and in view of the extended implementation of Enhanced Community Quarantine (ECQ) and General Community Quarantine (GCQ) in the identified areas, the following guidelines, in addition to the existing safety standards approved by the DOLE and also to the PPA Memorandum Circular No. 18-2020, are hereby directed to be implemented in all on-going PPA infrastructure projects including the DOTr Tourism and Social Reform projects:

1. Only persons from Twenty-One (21) to Fifty-Nine (59) years of age, without pre-existing health conditions, such as, but not limited to immunodeficiency, comorbidities or other health risk and who did not come in contact with someone with COVID-19 shall be allowed to be included in the workforce for areas under ECQ and GCQ.
2. The Contractor shall provide for their personnel/workers the necessary welfare facilities and amenities, such as employees' quarters for board and lodging for the project area covered by the ECQ and GCQ, otherwise, prior to deployment, prescribed procedures shall be conducted at every instance of re-entry.
3. Adequate food, potable drinking water, disinfectants shall be made available by the Contractors for their in-house personnel/worker during the period of ECQ/GCQ.
4. Compliance to social distancing, proper hygiene and mandatory wearing of face masks and other protective personal equipment shall be ensured for all on-going projects as precautionary measures to avoid and contain the spread of COVID-19 in the work place.

5. Field Offices, employees' quarters, bunkhouses and other common areas shall be maintained to ensure cleanliness and daily disinfection of said areas must be conducted accordingly.
6. Contractors shall provide disinfection facilities such as handwashing station, foot bath and others to be placed at various locations of all on-going projects.
7. Contractors shall ensure that their projects are in compliance with the DOLE D.O. No. 13 series of 1998. Personnel and workers shall be provided with the supply of vitamins particularly Vitamin C and other over the counter medicines, quarantine facilities and oxygen tanks for emergency purposes.
8. Safety Officer of the Contractor shall regularly conduct briefing on the information regarding COVID-19 construction protocols on top of other safety requirements.
9. As preventive measure, daily monitoring of the pre and post work health conditions of workers shall be undertaken by the Contractor's health/safety officer particularly the temperature, blood pressure and exposure monitoring. Personnel with symptoms relative to COVID-19 shall be immediately isolated and quarantined for fourteen (14) days and if necessary, brought to the DOH COVID-19 treatment facility under strict confidentiality/privacy.
10. Daily health monitoring report shall be prepared by the Safety Officer and to be submitted to the assigned PPA Project Engineer/Port Engineer.
11. Proper protocols in accordance with the DTI and DOLE Interim Guidelines and the Local Government Unit policy on work place prevention and control of COVID-19 shall likewise be strictly observed.
12. Daily work activities shall be under strict monitoring by the Safety Officer to ensure compliance with safety standards and quarantine protocols.
13. Sharing of construction and office equipment is discouraged. However, if it cannot be avoided, disinfection of equipment in between transfer shall be conducted.
14. All materials and equipment brought inside the project site shall be disinfected, as much as possible.
15. Non-essential personnel, visitors and general public shall be restricted to enter the project site. All personnel entering the construction site premises on a temporary basis (e.g. Delivery truck drivers, inspectors, etc) shall be properly logged and checked for symptoms. Gatherings, liquors, and/or merry-making are strictly prohibited in the project site.

8

16. PPA Port/Resident Engineer shall ensure strict compliance to DOLE D.O. No. 13, series of 1998 and implementation of the mentioned COVID -19 precautionary measures in the work place.
17. Clustered and staggered deployment of employees within the construction site shall be observed to minimize personnel contact.
18. Contractors shall submit to the implementing unit the inventory of work activities including the proposed sequencing of activities to be followed and undertaken to comply to the required social distancing. Break times shall be conducted in a staggered manner.

For strict compliance.


CONSTANTE T. FARINAS, JR.

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 if the IRR;**

Technical Documents

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

- ☐ (g) The prospective bidder’s computation of Net Financial Contracting Capacity (NFCC).

Class “B” Documents

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

II. FINANCIAL COMPONENT ENVELOPE

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

Other documentary requirements under RA No. 9184

- ☐ (j) Original of duly signed Bid Prices in the Bill of Quantities; **and**
- ☐ (k) 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**
- ☐ (l) Cash Flow by Quarter.

Section X. Bidding Form

Bid Form for the Procurement of Infrastructure Projects
[shall be submitted with the Bid]

BID FORM

Date : _____
Project Identification No. : _____

To: Philippine Ports Authority PMO Palawan
Port Area, Bgy. Bagong Pag-asa,
Puerto Princesa City, Palawan

Having examined the Philippine Bidding Documents (PBDs) including the Supplemental or Bid Bulletin Numbers _____, the receipt of which is hereby duly acknowledged, we, the undersigned, declare that:

- a. We have no reservation to the PBDs, including the Supplemental or Bid Bulletins, for the Procurement Project: *[insert name of contract]*;
- b. We offer to execute the Works for this Contract in accordance with the PBDs;
- c. The total price of our Bid in words and figures, excluding any discounts offered below is: _____;
- d. The discounts offered and the methodology for their application are: _____;
- e. The total bid price includes the cost of all taxes, such as, but not limited to: *[specify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) local taxes, and (iv) other fiscal levies and duties]*, which are itemized herein and reflected in the detailed estimates,
- f. Our Bid shall be valid within the a period stated in the PBDs, and it shall remain binding upon us at any time before the expiration of that period;
- g. If our Bid is accepted, we commit to obtain a Performance Security in the amount of _____ percent of the Contract Price for the due performance of the Contract, or a Performance Securing Declaration in lieu of the the allowable forms of Performance Security, subject to the terms and conditions of issued GPPB guidelines¹ for this purpose;
- h. We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;
- i. We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and
- j. We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.
- k. We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the [Name of Project] of the [Name of the Procuring Entity].

¹ currently based on GPPB Resolution No. 09-2020

I. We acknowledge that failure to sign each and every page of this Bid Form, including the Bill of Quantities, shall be a ground for the rejection of our bid.

Name: _____

Legal Capacity: _____

Signature: _____

Duly authorized to sign the Bid for and behalf of: _____

Date: _____

STATEMENT OF SINGLE LARGEST COMPLETED CONTRACT (SLCC) SIMILAR TO THE CONTRACT TO BE BID

Name of the Contract or Title of the Project a) [1]	Owner's Name, Address, and Telephone Numbers [2]	Nature/Scope of Work b) [3]	Contractor's Role (in percentage) c) [4]	Total Contract Value (in Pesos)		Date of Award e) [7]	Contract Duration	
				at Project Completion [5]	at Adjusted Value to Present Prices d) [6]		Start [8]	Completed [9]

Note:

1. The prospective bidder must have completed an SLCC that is similar to the contract to be bid, and whose value, adjusted to current prices using the PSA consumer price indices, must be at least fifty (50%) of the ABC to be bid.
2. The Statement shall be supported by:
 - a) Notice of Award and / or Notice to Proceed
 - b) Project Owner's Certificate of Final acceptance issued by the owner other than the Contractor or Constructor's Performance Evaluation System (CPES) Final Rating, which must be at least satisfactory.
 - c) Recapitulation of Bill of Quantities

Name of Firm/Applicant

Authorized Signing Official

Date

**STATEMENT OF ALL ON-GOING GOVERNMENT AND PRIVATE CONTRACTS
INCLUDING CONTRACTS AWARDED BUT NOT YET STARTED, WHETHER SIMILAR OR NOT SIMILAR IN NATURE**

Name of the Contract or Title of the Project a) [1]	Owner's Name, Address, and Telephone Nos.	Nature/Scope of Work b) [2]	Contractor's Role (in percentage) c) [3]	Total Contract Value at Award			Date of Award [5]	Value of Outstanding Works	Estimated Time of Completion	AS OF _____ % of Accomplishment d)		Contract Duration	
				Award	Project Completion	Escalated Value to Present Prices				Planned	Actual	Start	Completed
a) Government Contracts/Projects i. On-going ii. Awarded but not yet started													
b) Private Contracts/Projects i. On-going ii. Awarded but not yet started													

Note:

- 1) As appearing or defined in the contract entered/executed by the parties
- 2) With special reference to the Scope of Works as described/enumerated in the advertised Invitation to Bid.
- 3) Indicate whether as Sole Contractor, Sub-Contractor or Member in a Joint Venture / Consortium
- 4) Indicate the FOREX used if Contract Value is expressed in a currency other than the Philippine Peso. Specify the "Escalation Factor" used to escalate the Contract Value from Completion date to the advertisement date of the Invitation to Bid per section 23.11.2(3) of R.A. 9184.
- 5) State month and Year.

This Statement shall be supported by:

- a) Notice of Award and/or Contract
- b) Notice to Proceed

Name of Firm/Applicant

Authorized Signing Official

Date

STATEMENT OF SINGLE LARGEST COMPLETED CONTRACT (SLCC) SIMILAR TO THE CONTRACT TO BE BID

Name of the Contract or Title of Project a) [1]	Owner's Name, Address, and Telephone Numbers [2]	Nature/Scope of Work b) [3]	Contractor's Role (in percentage) c) [4]	Total Contract Value (in Pesos)		Date of Award e) [7]	Contract Duration	
				at Project Completion [5]	at Adjusted Value to Present Prices d) [6]		Start [8]	Completed [9]

- Note:
- 1. The prospective bidder must have completed an SLCC that is similar to the contract to be bid, and whose value, adjusted to current prices using the PSA consumer price indices, must be at least fifty (50%) of the ABC to be bid.
 - 2. The Statement shall be supported by:
 - a) Notice of Award and / or Notice to Proceed
 - b) Project Owner's Certificate of Final acceptance issued by the owner other than the Contractor or Constructor's Performance Evaluation System (CPES) Final Rating, which must be at least satisfactory.
 - c) Recapitulation of Bill of Quantities

Name of Firm/Applicant

Authorized Signing Official

Date

**STATEMENT OF ALL ON-GOING GOVERNMENT AND PRIVATE CONTRACTS
INCLUDING CONTRACTS AWARDED BUT NOT YET STARTED, WHETHER SIMILAR OR NOT SIMILAR IN NATURE**

Name of the Contract or Title of Project a) [1]	Owner's Name, Address, and Telephone Nos.	Nature/Scope of Work b) [2]	Contractor's Role (in percentage) c) [3]	Total Contract Value at Award			Date of Award [5]	Value of Outstanding Works	Estimated Time of Completion	AS OF		Contract Duration	
				Award	Project Completion	Escalated Value to Present Prices				% of	Accomplishment d)	Start	Completed
a) Government Contracts/Projects i. On-going ii. Awarded but not yet started b) Private Contracts/Projects i. On-going ii. Awarded but not yet started													

Note:

- 1) As appearing or defined in the contract entered/executed by the parties
- 2) With special reference to the Scope of Works as described/enumerated in the advertised Invitation to Bid.
- 3) Indicate whether as Sole Contractor, Sub-Contractor or Member in a Joint Venture / Consortium
- 4) Indicate the FOREX used if Contract Value is expressed in a currency other than the Philippine Peso. Specify the "Escalation Factor" used to escalate the Contract Value from Completion date to the advertisement date of the Invitation to Bid per section 23.11.2(3) of R.A. 9184.
- 5) State month and Year.

This Statement shall be supported by:

- a) Notice of Award and/or Contract
- b) Notice to Proceed

Name of Firm/Applicant

Authorized Signing Official

Date

EXPERIENCE RECORD ON SIMILARLY COMPLETED PROJECT

Name of Contract to be Bid : Repair of Damages caused by Typhoon Odette at Ports of Puerto Princesa, Coron and Cuyo, Palawan

Name of Single Largest Completed Contract with the same Major Categories of Works as the Contract to be Bid (To be filled-up by Prospective Bidder) :

Similar Major Categories of Work [1]	Unit of Measure [3]	Quantity [4]	Title of the Project	Unit of Measure	Quantity
1. ROCK WORKS	CUM	285.00			
2. FILL MATERIALS	CUM	127.00			
3. REINFORCED CONCRETE WORKS	CUM	541.00			
4. PAVING WORKS (PCCP)	SQM	59.00			
5. CARGO SHED	SQM	83.00			

Note : 1) Submit the Certificate of Completion/Certificate of Acceptance by the project owner, Final Recapitulation/Bill of Quantities and/or Constructor Performance Evaluation System (CPES) ratings, 1st, 2nd & Final visit (if applicable). Projects with no Certificate of Completion and Recapitulation/Bill of Quantities shall not be considered.

2) The Owner's Certificate of Final Acceptance; or the Constructors Performance Evaluation Summary (CPES) Final Rating and/or the Certificate of Completion, must be satisfactory.

Name of Firm/Applicant

Authorized Signing Official

Date

FINANCIAL DATA AND REQUIREMENTS

A. The prospective bidder's audited Financial Statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "RECEIVED" by Bureau of Internal Revenue (BIR), or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission.

	[1]	[2]
		Year :
1.	Total Assets	
2.	Current Assets	
3.	Total Liabilities	
4.	Current Liabilities	
5.	Net Worth (1-3)	
6.	Net Working Capital (2-4)	

B. The computation of the bidders Net Financial Contracting Capacity (NFCC) must be at least equal to the approved budget for the contract to be bid, computed based on the above data, using the following formula:

NFCC = [(current assets - current liabilities) (15)] minus the value of all outstanding or uncompleted portions of the project under ongoing contracts, including awarded contracts yet to be started, coinciding with the contract to be bid

NFCC = _____

Attached herewith are certified true copies of the audited financial statements stamped received by the BIR or BIR authorized collecting agent for the latest/immediately preceding calendar year.

Name of Prospective Bidder-Firm

Signature over Printed Name of Authorized Signing Official

Designation

Date: _____

NOTE : If prospective bidder is a Partnership or Joint Venture, each member-firm of the Joint Venture shall submit separate financial statements.

KEY PERSONNEL TO BE ASSIGNED TO THE CONTRACT TO BE BID

Following are the key personnel that I will assign to the project if awarded the contract. Attached are their qualification and experience data and certified true copies of their PRC IDs, certificates of accreditation, etc.

Name of Contract to be Bid: _____

	Project Manager [1]	Project Engineer [2]	Materials Engineer [3]	Foreman [4]	Construction Safety and Health Officer [5]
1. NAME					
2. ADDRESS					
3. DATE OF BIRTH					
4. CITIZENSHIP					
5. CIVIL STATUS					
6. EDUCATION					
ELEMENTARY Name and Location of School Year Graduated					
HIGH SCHOOL Name and Location of School Year Graduated					
COLLEGE Name and Location of School Year Graduated					
7. PRC LICENSE No.					
8. TIN (Tax Identification No.)					
9. SSS No.					

Name of Prospective Bidder-Firm

Signature over Printed Name of Authorized Signing Official

Date

Designation

NOTE : *Attach complete qualification and experience data of all Key Personnel including certified copies of their valid DPWH certificate of accreditation for Materials Engineer, PRC ID's for the Project Engineer and Certificate of Training for the Construction Safety and Health Officer issued by the DOLE Accredited Training. Failure to attach the said documents is ground for disqualification.*

BIODATA OF (Position of Key Personnel)

[Give detailed information of the Key Personnel who are assigned as full-time Project Manager, Project Engineer, Materials Engineer and Foreman for the project to be bid. Each Key Personnel must fill-up this form.]

1. Name

:
2. Date of Birth

:
3. Nationality

:
4. Education and Degrees

:
5. Specialty

:
6. Registration

:
7. Length of Service with the Firm

:

Years, from

(month)

(year)

to

(month)

(year)
8. Total Years of Experience including previous employment :
9. If Item 7 is less than ten (10) years, give name and length of service with previous employers for a ten (10)-year period (*attached additional sheet/s if necessary*) :

<u>Name and Address of Employer</u>	<u>Length of Service</u>
	_____ year(s), from _____ to _____
	_____ year(s), from _____ to _____
	_____ year(s), from _____ to _____
	_____ year(s), from _____ to _____
	_____ year(s), from _____ to _____
	_____ year(s), from _____ to _____
	_____ year(s), from _____ to _____

10. Experience: (see next page)

BIO DATA OF _____(Continuation)

10. Experience: (This should cover the past ten (10) years of experience. Attached as many pages as necessary to show involvement of personnel in the projects using the format below.)

Name of Company/Firm	Name and Address of Owner of Company/Firm	Indicate the features of project (particulars of the project components and any other particular interest connected with the project)	Contract Amount (in Philippine Currency)	Position	Structures for which the employee/ personnel was responsible	Assignment Period	
						From	To

(Name and Signature of Employee/Personnel)

It is hereby certified that the above personnel can be assigned to this project, if the contract is awarded to our company.

(Place and Date)

(Signature Over Printed Name of Authorized Signatory of the Bidder-Firm)

Designation

EQUIPMENT PLEDGED TO THE CONTRACT TO BE BID

I hereby declare that the following equipment listed below which are owned, leased or under purchase agreement are in good operating condition and are available for the duration of the project.

Name of Contract to be Bid : _____

DESCRIPTION (Type, Model, Make) [1]	No. of Each [2]	YEAR OF MANUFACTURE [3]	OWNED/LEASED/ UNDER PURCHASE AGREEMENT ^{a)} [4]	CAPACITY PERFORMANCE [5]	MOTOR NO./ BODY NO. [6]	CONDITION [7]	PRESENT LOCATION [8]

(If space is not enough, reproduce/xerox this Form.)

Name of Bidder-Firm

(Signature Over Printed Name of Authorized Signatory of the Bidder-Firm)

Date

Designation

NOTE:
1. Attached notarized Certificate of Availability of Equipments Units from:
a) Bidder - for equipment units owned by the bidder;
b) Lessor - for equipment units under lease;
c) Vendor - for equipment units under purchase agreement.
Failure to attach the aforementioned notarized certificate(s) is ground for disqualification of the bidder's bid.

(For equipment units owned by the Bidder)

CERTIFICATION OF AVAILABILITY OF EQUIPMENT

This is to certify that I have the following owned equipment units which shall be used exclusively for the duration of the project _____ *(name of contract to be bid)* _____, if awarded the contract, to wit:

<u>No. of Units</u>	<u>Name/Description of Equipment</u>	<u>Performance Capacity</u>
---------------------	--------------------------------------	-----------------------------

IN WITNESS WHEREOF, I have hereunto set my hand this _____ day of _____ 2017 at _____, Philippines.

(Signature over printed name of Bidder)
(Position/Designation in the Company)
(Name of Company of Bidder)

Affiant

A C K N O W L E D G E M E N T

SUBSCRIBED AND SWORN to before me this _____ day of _____, 20____, affiant exhibiting to me his/her Community Tax Certificate No. _____ issued on _____ at _____, Philippines.

Doc. No. _____
Page No. _____
Book No. _____
Series of _____

NOTARY PUBLIC

(For equipment units under Lease)

CERTIFICATION OF AVAILABILITY OF EQUIPMENT

This is to certify that I have the following owned equipment units which are available for lease to
(name of bidder)
and which shall be exclusively used for the duration of the project (name of
contract to be bid) , to wit:

<u>No. of Units</u>	<u>Name/Description of Equipment</u>	<u>Performance Capacity</u>	<u>Rental/Day</u>
---------------------	--------------------------------------	-----------------------------	-------------------

The undersigned shall execute with (name of bidder)
the corresponding contract of lease for the above-mentioned equipment upon award of
the contract to the latter.

IN WITNESS WHEREOF, I have hereunto set my hand this ____ day of _____
2017 at _____, Philippines

(Signature over printed name of Lessor)
(Position/Designation in the Company)
(Name of Lessor 's
Affiant

CONFORME:

(Signature over printed name of Bidder)
(Position/Designation in the Company)
(Name of Bidder's Co

ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN to before me this ____ day of _____, 20__, affiant
exhibiting to me his/her Community Tax Certificate No. _____ issued on
_____ at _____, Philippines.

Doc. No. _____
Page No. _____
Book No. _____
Series of _____

NOTARY PUBLIC

(For equipment units under Purchase Agreement)

CERTIFICATION OF AVAILABILITY OF EQUIPMENT

This is to certify that I have the following owned equipment units which are available for sale to/purchase by _____ (name of bidder) _____ and which shall be exclusively used for the duration of the project _____ (name of _____ contract to be bid) _____, to wit:

<u>No. of Units</u>	<u>Name/Description of Equipment</u>	<u>Performance Capacity</u>	<u>Amount</u>
---------------------	--------------------------------------	-----------------------------	---------------

The undersigned shall execute with _____ (name of bidder) _____ the corresponding purchase agreement/deed of sale for the above-mentioned equipment upon award of the contract to the latter.

IN WITNESS WHEREOF, I have hereunto set my had this _____ day _____ 2017 at _____, Philippines.

(Signature over printed name of Vendor)

(Position/Designation in the Company)

(Name of Vendor)
Affiant

CONFORME:

(Signature over printed name of Bidder)

(Position /Designation in the Company)

(Name of Bidder)

ACKNOWLEDGEMENT

SUBSCRIBED AND SWORN to before me this _____ day of _____, 20____, affiant exhibiting to me his/her Community Tax Certificate No. _____ issued on _____ at _____, Philippines.

Doc. No. _____
Page No. _____
Book No. _____
Series of _____

NOTARY PUBLIC

CONTRACT OF LEASE OF EQUIPMENT

KNOW ALL MEN BY THESE PRESENTS:

This contract made and entered into this _____ in _____ by and between:

_____, a company duly organized and existing under and by the virtue of Laws of the Republic of the Philippines, with Postal address at _____; represented in this Act by its President / General Manager, _____ hereinafter referred to as the LESSOR.

- A N D -

_____, a company duly organized and existing under and by the virtue of Laws of the Republic of the Philippines, with Postal address at _____; represented in this Act by its President / General Manager, _____ hereinafter referred to as the LESSEE.

WITNESSETH

Whereas, the Lessor represents that it is the Owner/Legal possessor of below described construction equipment hereinafter referred to as the EQUIPMENT.

Whereas, the LESSEE being engaged in the construction activities, is in need of the EQUIPMENT and has satisfied himself that the same is suitable for the proposed project: _____;

Whereas, on offer and acceptance made by one to the other, the parties hereby agree to execute the Contract of Lease of Equipment under the terms and conditions set forth;

Whereas, the Contract of Lease of Equipment shall be executed after the award of the above-mentioned project to the LESSEE and the contract shall be in effect until such time that the contractor is authorized by the Philippine Ports Authority to pull out the said equipment.

Now, therefore, for and in consideration of the foregoing premises, the LESSOR hereby leases and the LESSEE accepts the lease of the following EQUIPMENT, to wit :

<u>DESCRIPTION</u>	<u>PERFORMANCE CAPACITY</u>	<u>RATE PER HOUR (Php) or RATE PER DAY</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

TERMS AND CONDITIONS:

1. In case wherein the equipment is utilized below two (2) hours (or days), a minimum of one (1) hour (or day) per day shall be charged to the LESSEE.
2. Lease contract shall commence when the equipment leaves the LESSOR'S yard and shall terminate upon the return of the equipment by the LESSEE to the LESSOR'S yard.
3. LESSEE shall pick-up the equipment and its operators at LESSOR'S yard. Upon termination of works, the lessee shall demobilize all units within one week. LESSEE shall

pay for each unit an equivalent of one (1) hour (or day) rental for every day of delayed demobilization.

- 4. Fuel, oil and lubricants to be supplied by the LESSEE but for the account of the LESSOR.
- 5. The equipment and accessories contracted shall be under the supervision and responsibility for the safekeeping and scope of work of the equipment and accessories or as required by the LESSOR.
- 6. Equipment operator(s), mechanics and servicemen shall be provided by and for the account of the LESSOR.
- 7. MOBILIZATION, provided for LESSEE’S account, per equipment hour (or day) basis.
- 8. DEMOBILIZATION, for LESSEE’S account, per equipment hour (or day) basis.

IN WITNESS THEREFORE, both parties agreed and hereto have subscribed their names:

LESSOR: LESSEE:

by: _____ by: _____

WITNESSED BY:

REPUBLIC OF THE PHILIPPINES)
CITY/MUNICIPALITY OF _____) S. S.

ACKNOWLEDGEMENT

BEFORE ME, A NOTARY PUBLIC, personally appeared the following persons:

	NAME	RES.CERT. #	DATE	PLACE
1.	_____(Lessor)	_____	_____	_____
2.	_____(Lessee)	_____	_____	_____

are known to me to be the same persons who executed and signed the foregoing CONTRACT OF LEASE OF EQUIPMENT, acknowledged to me that the same are their true and voluntary act and deed of the company they each represent.

WITNESS MY HAND AND NOTARIAL SEAL on this _____ at _____, Philippines.

Doc. No. _____
Page No. _____
Book No. _____
Series of _____

NOTARY PUBLIC

REPUBLIC OF THE PHILIPPINES)
CITY/MUNICIPALITY OF _____)

AFFIDAVIT OF SITE INSPECTION

I, _____, of legal age, Filipino, married, and residing at _____,
after having been duly sworn to in accordance with law, hereby depose and
say:

- 1. That I am the _____ of _____
with principal address at _____;
- 2. That I have inspected the project site for the _____
on _____;
- 3. That I have fully determined the geographical and physical conditions of
the project site and its environ, including the socio-political and peace and
order condition of the barangay, municipality and province where the
project is located;
- 4. That I am fully aware of the laws and ordinances pertaining to project
implementation in the barangay, municipality and province where the
project is located, as well as the rules and regulations of other government
agencies concerning project implementation in the area where the project
is located;
- 5. That I am executing this affidavit to attest to the truth of the foregoing
facts and as part of the post-qualification documentary requirements for
the aforementioned project.

IN WITNESS WHEREOF, I have hereunto set my hand this _____ day of _____.

(Affiant's signature over printed name)

SUBSCRIBED AND SWORN TO before me this _____, affiant
exhibiting to me his/her Community Tax Certificate No. _____ issued
on _____ at _____, Philippines.

Doc. No. _____

Page No. _____

Book No. _____

Series of 2020

Omnibus Sworn Statement (Revised)

[shall be submitted with the Bid]

REPUBLIC OF THE PHILIPPINES)
CITY/MUNICIPALITY OF _____) S.S.

AFFIDAVIT

I, [Name of Affiant], of legal age, [Civil Status], [Nationality], and residing at [Address of Affiant], after having been duly sworn in accordance with law, do hereby depose and state that:

1. *[Select one, delete the other:]*

[If a sole proprietorship:] I am the sole proprietor or authorized representative of [Name of Bidder] with office address at [address of Bidder];

[If a partnership, corporation, cooperative, or joint venture:] I am the duly authorized and designated representative of [Name of Bidder] with office address at [address of Bidder];

2. *[Select one, delete the other:]*

[If a sole proprietorship:] As the owner and sole proprietor, or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached duly notarized Special Power of Attorney;

[If a partnership, corporation, cooperative, or joint venture:] I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable)];

3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. *[Select one, delete the rest:]*

[If a sole proprietorship:] The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a partnership or cooperative:] None of the officers and members of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a corporation or joint venture:] None of the officers, directors, and controlling stockholders of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. [Name of Bidder] complies with existing labor laws and standards; and
8. [Name of Bidder] is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
- a. Carefully examining all of the Bidding Documents;
 - b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
 - c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and
 - d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the [Name of the Project].
9. [Name of Bidder] did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.
10. In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.

IN WITNESS WHEREOF, I have hereunto set my hand this __ day of __, 20__ at _____, Philippines.

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]
Affiant

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]

Bid Securing Declaration Form

[shall be submitted with the Bid if bidder opts to provide this form of bid security]

REPUBLIC OF THE PHILIPPINES)
CITY OF _____) S.S.

BID SECURING DECLARATION
Project Identification No.: [Insert number]

To: *[Insert name and address of the Procuring Entity]*

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.
2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f), of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.
3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:
 - a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
 - b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
 - c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of [month] [year] at [place of execution].

*[Insert NAME OF BIDDER OR ITS
AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]
Affiant*

[Jurat]
[Format shall be based on the latest Rules on Notarial Practice]

CONSTRUCTION METHODOLOGY

Name of Project : _____

Proposed Project Description : _____

Location : _____

MINIMUM SCOPE OF CONSTRUCTION METHODOLOGY

Notes:

The narrative construction method will guide and familiarize the contractor and the PPA on how the project shall be carried out in accordance with the highest standard of workmanship.

The construction method shall be consistent with the Bar Chart / S-Curve Schedule, Equipment Schedule and manpower Schedule.

Signature

(Authorized Signing Official)

MANPOWER SCHEDULE

Name of Project : _____

Proposed Project Description : _____

Location : _____

MANPOWER (Minimum)	CONTRACT DURATION (_____ Calendar Days)																					
	MONTHLY																					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Project Manager																						
Project Engineer																						
Materials Engineer																						
Construction Safety & Health Officer																						
Specify other applicable positions, ie.:																						
-Carpenter																						
-Steelman																						
-Mason																						
-Electrician																						
-Rigger																						
-Others																						

Signature

(Authorized Signing Official)

EQUIPMENT UTILIZATION SCHEDULE

Name of Project : _____

Proposed Project Description : _____

Location : _____

[illegible]

Signature
(Authorized Signing Official)

CASHFLOW BY QUARTER AND PAYMENT SCHEDULE

Name of Project : _____

Proposed Project Description : _____

Location : _____

Project Duration (days of months)	Payment Schedule (Monthly, in Pesos)	Cash Flow (Quarterly, in Pesos)
TOTAL		

- NOTES:
- The cash flow by quarter and payment schedule should be consistent with the Bar Chart and S-curb.
 - Payment schedule shall not be more than once a month.

Signature
(Authorized Signing Official)

JOINT VENTURE AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

That this JOINT VENTURE AGREEMENT is entered into by and between:

_____, of legal age, *(civil status)* , Owner/Proprietor/
General Manager/President of *(business name of JV partner #1)*
with business address at _____

- and -

_____, of legal age, *(civil status)* , Owner/Proprietor/
General Manager/President of *(business name of JV partner #2)*
with business address at _____

WITNESSETH:

1. That both parties agree to join together their capital, manpower, equipment, work experience and other resources and efforts to enable the Joint Venture to participate in the Eligibility Check, Bidding and Undertaking of the hereunder stated Contract of the *Philippine Ports Authority – PMO Palawan*:

_____ *(complete name/title of the contract to be bid)*

2. That *(business name of JV partner #1)* shall contribute _____% and *(business name of JV partner #2)* shall contribute _____% of the logistics requirements of the Contract and the Joint Venture shall share the profit or loss on a _____ ratio;
3. That *(business name of JV partner #1)* and *(business name of JV partner #2)* shall assume joint and several responsibilities for the satisfactory performance of the Contract and the parties shall be jointly and severally liable to the Philippine Ports Authority – Head Office for all the obligations arising under the Contract;
4. That in case one of the parties declares bankruptcy or becomes insolvent, the remaining Joint Venture partner shall assume full responsibilities to undertake any correction works covered by the warranty;
5. That both parties agree that *(name of Authorized Managing Officer)* shall be the Official Representative and the Authorized Managing Officer and therefore the authorized signatory of the Joint Venture and is granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the Joint Venture in the Eligibility Check, Bidding and Undertaking of the said Contract, as fully and effectively as the Joint Venture may do as if personally present with full power of substitution and revocation.

6. That the Joint Venture shall be known as _____
with business address at _____.
7. That this Joint Venture Agreement shall remain in effect only for the above-stated Contract until terminated by both parties.

IN WITNESS WHEREOF, we have hereunto set our hands this _____ day of _____ 20____ at _____, Philippines.

(BUSINESS NAME OF JV PARTNER #1) (BUSINESS NAME OF JV PARTNER #2)

BY: _____ BY: _____
(Proprietor/Gen. Mgr./President) (Proprietor/Gen. Mgr./President)

W I T N E S S E S

A C K N O W L E D G M E N T

REPUBLIC OF THE PHILIPPINES)
) S.S

BEFORE ME, a Notary Public, for and in _____, Philippines personally appeared:

<u>Comm. Tax Cert. No.</u>	<u>Date Issued</u>	<u>Place of Issue</u>
_____	_____	_____
_____	_____	_____

who are known to me and to me known to be the same persons who executed the foregoing JOINT VENTURE AGREEMENT and acknowledged to me that the same are their free and voluntary act and deed as well as the companies they represent. This agreement, consisting of two (2) pages including this page where the acknowledgment is written, have been signed by the parties and their instrumental witnesses in each and every page hereof.

WITNESS MY HAND AND SEAL on this _____ day of _____, 20____ at the place written above.

Doc. No. _____
Page No. _____
Book No. _____
Series of _____

NOTARY PUBLIC