

**PHILIPPINE
PORTS
AUTHORITY**



**REPAIR OF DAMAGED CONCRETE PAVEMENT,
COVERED WALKWAY, PASSENGER TERMINAL
BUILDING, REPAINTING OF SECURITY FENCE, AND
REPAIR OF SCOURED PORTION OF SEAWALL, PORT OF
BULADO, GUIHULNGAN
(NRP-NOS-01-22)**

BIDDING DOCUMENTS

**Engineering Services Division
CY 2022**

TABLE OF CONTENTS

Glossary of Terms, Abbreviations, and Acronyms.....	4
Section I. Invitation to Bid	7
Section II. Instructions to Bidders.....	11
1. Scope of Bid.....	12
2. Funding Information	12
3. Bidding Requirements.....	12
4. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices	12
5. Eligible Bidders.....	13
6. Origin of Associated Goods	13
7. Subcontracts	13
8. Pre-Bid Conference.....	13
9. Clarification and Amendment of Bidding Documents.....	13
10. Documents Comprising the Bid: Eligibility and Technical Components.....	14
11. Documents Comprising the Bid: Financial Component	14
12. Alternative Bids	15
13. Bid Prices	15
14. Bid and Payment Currencies.....	15
15. Bid Security.....	15
16. Sealing and Marking of Bids.....	15
17. Deadline for Submission of Bids	16
18. Opening and Preliminary Examination of Bids	16
19. Detailed Evaluation and Comparison of Bids	16
20. Post Qualification.....	16
21. Signing of the Contract	17
Section III. Bid Data Sheet.....	18
Section IV. General Conditions of Contract	22
1. Scope of Contract.....	23
2. Sectional Completion of Works	23
3. Possession of Site.....	23
4. The Contractor’s Obligations.....	23
5. Performance Security	24
6. Site Investigation Reports	24

7.	Warranty.....	24
8.	Liability of the Contractor.....	24
9.	Termination for Other Causes.....	24
10.	Dayworks	25
11.	Program of Work.....	25
12.	Instructions, Inspections and Audits	25
13.	Advance Payment.....	25
14.	Progress Payments	25
15.	Operating and Maintenance Manuals.....	25
Section V. Special Conditions of Contract.....		27
Section VI. Specifications		29
Section VII. Drawings.....		30
Section VIII. Bill of Quantities		69
Section IX. Checklist of Technical and Financial Documents.....		72

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

REPAIR OF DAMAGED CONCRETE PAVEMENT, COVERED WALKWAY, PASSENGER TERMINAL BUILDING, REPAINTING OF SECURITY FENCE, AND REPAIR OF SCOURED PORTION OF SEAWALL, PORT OF BULADO, GUIHULNGAN (NRP-NOS-01-22)

1. The *Philippine Ports Authority, Port Management Office of Negros Oriental/Siquijor (PPA, PMO-NOS)* intends to apply the sum of ₱ 6,447,349.44 being the Approved Budget for the Contract (ABC) to payments under the contract for *Repair of Damaged Concrete Pavement, Covered Walkway, Passenger Terminal Building, Repainting of Security Fence, and Repair of Scoured Portion of Seawall, Port of Bulado, Guihulngan (NRP-NOS-01-22)*. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The *PPA, PMO-NO/S* now invites bids for the above Procurement Project. Completion of the Works is required *One Hundred Thirty Nine (139) 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 *PPA, PMO-NOS* and inspect the Bidding Documents at the address given below from *8:00 am – 5:00 pm, Monday to Friday*.
5. A complete set of Bidding Documents may be acquired by interested bidders on *October 20, 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 ₱ 6,500.00*. The Procuring Entity shall allow the bidder to present its proof of payment for the fees *in person*.



6. The **PPA, PMO-NO/S** will hold a Pre-Bid Conference on **November 7, 2022; 10:00 AM** at *Philippine Ports Authority, PMO-NOS Conference Room, Port Operation Building, Port Area, Looc, Dumaguete City* and/or through videoconferencing/webcasting *via via Microsoft Teams*, 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 **November 28, 2022; 9:30 AM.** Late bids shall not be accepted.
8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 16.
9. Bid opening shall be on **November 28, 2022; 10:00 AM** at the given address below and/or through *Microsoft Teams*. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
10. The **PPA, PMO-NO/S** reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
11. For further information, please refer to:

*Head, BAC Secretariat
Philippine Ports Authority, PMO-Negros Oriental/Siquijor,
Port Operations Building, Port Area, Looc, Dumaguete City
Tel. No. (035) 527-2079*

12. You may visit the following websites:

For downloading of Bidding Documents: www.ppa.com.ph and www.philgeps.gov.ph

13. Minimum Equipment Requirements:

Jack Hammer w/ compressor	-	Owned
Backhoe (0.90 cu.m.)	-	Owned/Leased
Dump Truck (10 cu.m.)	-	Owned/Leased
Concrete Cutter	-	Owned
Road Roller (10T)	-	Owned/Leased
Transit Mixer	-	Owned/Leased
Concrete Vibrator	-	Owned
Portable Demolition Hammer	-	Owned

Welding Machine (300 Amp.)
One-Bagger Concrete Mixer
Truck-Mounted Crane (25T)
Clam Shell

- Owned
- Owned
- Owned/Leased
- Owned/Leased



Required PCAB Registration: Small B – Port, Harbor and Offshore Engineering

(Sgd.) Atty. JENLYN B. MEDIANA-ARENASA
Chairperson, BAC

Noted:

(Sgd.) Atty. SARAH R. MIJARES
Head of Procuring Entity



Section II. Instructions to Bidders

1. Scope of Bid

The Procuring Entity, *PPA, PMO-NOS* invites Bids for *Repair of Damaged Concrete Pavement, Covered Walkway, Passenger Terminal Building, Repainting of Security Fence & Repair of Scoured Portion of Seawall, Port of Bulado, Guihulngan* with Project Identification Number *NRP-NOS-01-22*.

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

2. Funding Information

2.1. The GOP through the source of funding as indicated below for *CY 2022* in the amount of **₱ 6,447,349.44**.

2.2. The source of funding is:

- a. GOCC and GFIs, the proposed 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 “P” of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.



5. Eligible Bidders

- 5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.
- 5.2. The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the PSA's CPI, except under conditions provided for in Section 23.4.2.4 of the 2016 revised IRR of RA No. 9184.

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

- 5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

6. Origin of Associated Goods

There is no restriction on the origin of Goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN.

7. Subcontracts

- 7.1. The Bidder may subcontract portions of the Project to the extent allowed by the Procuring Entity as stated herein, but in no case more than fifty percent (50%) of the Project.

The Procuring Entity has prescribed that:

- a. Subcontracting is not allowed.

8. Pre-Bid Conference

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time and either at its physical address *PPA, PMO-NOS, Port Operations Building, Port Area, Looc, Dumaguete City* and/or through *Microsoft Teams* as indicated in paragraph 6 of the **IB**.

9. Clarification and Amendment of Bidding Documents

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the

Procuring Entity, either at its given address or through electronic mail indicated in the **IB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.



10. Documents Comprising the Bid: Eligibility and Technical Components

- 10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.
- 10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.
- 10.3. A valid special PCAB License in case of Joint Ventures, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
- 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.
- 10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

11. Documents Comprising the Bid: Financial Component

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

12. Alternative Bids

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

13. Bid Prices

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

14. Bid and Payment Currencies

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

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

- a. Philippine Pesos.

15. Bid Security

15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.

15.2. The Bid and bid security shall be valid until one hundred twenty (120). 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.

PHILIPPINE
PORTS
AUTHORITY



17. Deadline for Submission of Bids

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

18. Opening and Preliminary Examination of Bids

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

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

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

19. Detailed Evaluation and Comparison of Bids

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

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

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

20. Post Qualification

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



21. Signing of the Contract

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

Section III. Bid Data Sheet

Bid Data Sheet

ITB Clause	
5.2	<p>For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be:</p> <p>1.0 GENERAL EXPENSES 1.01 Mobilization/Demobilization 1.02 Provide construction safety and health program during execution of the project including Stringent Covid-19 protocols per Engineering Circular No. 01-2020, and Construction Guidelines for Project Implementation during the period of Public Health Emergency, approved by PDCB & CIAP (as indicated in the Bid Documents)</p> <p>2.0 REPAIR OF DAMAGED CONCRETE PAVEMENT 2.01 Demolition and disposal of damaged portion of PCCP 2.02 Removal & disposal of unsuitable base materials 2.03 Supply, spread & compact Item 200 Aggregate Base Course 2.04 Supply & place 3500 psi concrete including dowels</p> <p>3.0 REPLACEMENT OF DAMAGED uPVC CORR. ROOFING SHEETS OF EXISTING COVERED WALKWAY AT OPERATIONAL AREA</p> <p>4.0 REPAIR OF PASSENGER TERMINAL BUILDING 4.01 Repair of Comfort Rooms of PTB 4.01.1 Demolition of existing floor & wall tiles including concrete floor & wall affected by new plumbing & water supply lines 4.01.2 Replacement of damaged plumbing and water supply lines 4.01.3 Construction of CHB partition wall including plastering 4.01.4 Construction of RC Countertop and slop sink including installation of granite slab 4.01.5 Replacement of floor and wall tiles 4.01.6 Replacement of toilet fixtures including other accessories 4.01.7 Replacement of damaged ceiling system of C.R. 4.01.8 Supply & install phenolic anti-bacterial waterproof toilet partition & doors including stainless hinges, lock indicators, bottom support, door knobs & coat hooks 4.01.9 Repair/Enhancement of electrical system of C.R. 4.02 Repainting of PTB 4.02.1 Scraping of loose paints and rusted portion of roofing 4.02.2 Repainting of exterior/interior walling & ceiling including roofing of PTB 4.03 Repair of Existing Canopy 4.03.1 Demolition of existing concrete pavement affected by the concrete footing & pedestal of canopy 4.03.2 Excavation for footing including disposal of excavated materials 4.03.3 Supply & place 3500 psi concrete for footing & pedestal including plastering & plain cement finish 4.03.4 Supply & install steel reinforcement for Item 4.03.3 4.03.5 Roof framing & roofing including G.I. pipe posts & built-up beam 4.03.6 Painting of Canopy</p>

	<p>5.0 REPAINTING OF SECURITY FENCE</p> <p>6.0 REPAIR OF SCOURED PORTION OF SEAWALL AND RETAINING WALL INCLUDING CONCRETE APRON</p> <p>6.01 Demolition of affected concrete pavement & retaining wall & portion of seawall including removal of steel reinforcement of retaining wall</p> <p>6.02 Excavation and removal of fill materials & rock embankment</p> <p>6.03 Supply and place armour rocks (1,000 kgs. min.) to scoured portion of seawall and seawall protection</p> <p>6.04 Supply & place 3500 psi concrete for retaining wall</p> <p>6.05 Supply & install steel reinforcement for Item 6.04</p> <p>6.06 Supply & place 50-100 kgs. rocks for rock embankment</p> <p>6.07 Supply & place geotextile filter fabric</p> <p>6.08 Supply & place 50-100 kgs. rocks for rubble masonry of damaged seawall</p> <p>6.09 Replacement and compaction of fill materials</p> <p>6.10 Supply, place & compact item 200 aggregate base course</p> <p>6.11 Supply & place 3500 psi concrete for pavement including dowels</p> <p>6.12 Supply & place 3500 psi concrete for apron</p> <p>6.13 Supply & install steel reinforcement for Item 6.12</p>																								
7.1	N/A																								
10.3	N/A																								
10.4	<p>The key personnel must meet the required minimum years of experience set below:</p> <table border="1"> <thead> <tr> <th><u>Key Personnel</u></th> <th><u>General Experience</u></th> <th><u>Relevant Experience</u></th> </tr> </thead> <tbody> <tr> <td>Project Manager</td> <td>5 years minimum</td> <td>5 years minimum</td> </tr> <tr> <td>Project Engineer</td> <td>3 years minimum</td> <td>3 years minimum</td> </tr> <tr> <td>Materials Engineer 1</td> <td>1 year minimum</td> <td>1 year minimum</td> </tr> <tr> <td>Safety & Health Officer</td> <td>1 year minimum</td> <td>1 year minimum</td> </tr> <tr> <td>Foreman</td> <td>5 years minimum</td> <td>5 years minimum</td> </tr> </tbody> </table>	<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>	Project Manager	5 years minimum	5 years minimum	Project Engineer	3 years minimum	3 years minimum	Materials Engineer 1	1 year minimum	1 year minimum	Safety & Health Officer	1 year minimum	1 year minimum	Foreman	5 years minimum	5 years minimum						
<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>																							
Project Manager	5 years minimum	5 years minimum																							
Project Engineer	3 years minimum	3 years minimum																							
Materials Engineer 1	1 year minimum	1 year minimum																							
Safety & Health Officer	1 year minimum	1 year minimum																							
Foreman	5 years minimum	5 years minimum																							
10.5	<p>The minimum major equipment requirements are the following:</p> <table border="1"> <thead> <tr> <th><u>Equipment</u></th> <th><u>Capacity</u></th> <th><u>Number of Units</u></th> </tr> </thead> <tbody> <tr> <td>Jack Hammer w/ compressor</td> <td></td> <td>1 unit</td> </tr> <tr> <td>Backhoe</td> <td>0.90 cu.m.</td> <td>1 unit</td> </tr> <tr> <td>Dump Truck</td> <td>10 cu.m.</td> <td>1 unit</td> </tr> <tr> <td>Concrete Cutter</td> <td></td> <td>1 unit</td> </tr> <tr> <td>Road Roller</td> <td>10 T</td> <td>1 unit</td> </tr> <tr> <td>Transit Mixer</td> <td></td> <td>1 unit</td> </tr> <tr> <td>Concrete Vibrator</td> <td></td> <td></td> </tr> </tbody> </table>	<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>	Jack Hammer w/ compressor		1 unit	Backhoe	0.90 cu.m.	1 unit	Dump Truck	10 cu.m.	1 unit	Concrete Cutter		1 unit	Road Roller	10 T	1 unit	Transit Mixer		1 unit	Concrete Vibrator		
<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>																							
Jack Hammer w/ compressor		1 unit																							
Backhoe	0.90 cu.m.	1 unit																							
Dump Truck	10 cu.m.	1 unit																							
Concrete Cutter		1 unit																							
Road Roller	10 T	1 unit																							
Transit Mixer		1 unit																							
Concrete Vibrator																									

	<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>
	Portable Demolition Hammer		1 unit
	Welding Machine	300 Amp.	1 unit
	One-Bagger Concrete Mixer		1 unit
	Truck-Mounted Crane	25 T	1 unit
	Clam Shell		1 unit
12	<i>[Insert Value Engineering clause if allowed.]</i>		
15.1	<p>The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:</p> <p>a. The amount of not less than <u>Php 128,946.99</u> <i>[two percent (2%) of ABC]</i>, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit;</p> <p>b. The amount of not less than <u>Php 322,367.47</u> <i>[five percent (5%) of ABC]</i> if bid security is in Surety Bond.</p>		
19.2	<p>Partial bids are allowed, as follows:</p> <p><i>Not Allowed.</i></p>		
20	<p><i>Other appropriate license and permits required.</i></p> <p><i>None</i></p>		
21	<p>Additional contract documents are as follows:</p> <ol style="list-style-type: none"> 1. Construction Schedule and S-curve 2. Manpower Schedule 3. Construction Methods 4. Equipment Utilization Schedule 5. Construction Safety and Health Program approved by the DOLE 6. 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	<i>N/A</i>
4.1	The Procuring Entity shall give possession of all parts of the Site to the Contractor <i>Seven (7) calendar days after signing of the Notice to Proceed.</i>
6	The site investigation reports are: <i>[list here the required site investigation reports.]</i>
7.2	Fifteen (15) years.
10	a. No dayworks are applicable to the contract.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity’s Representative within <i>Seven (7)</i> 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 <i>[insert amount]</i> .
13	The amount of the advance payment is <i>NONE</i> .
14	<i>[If allowed by the Procuring Entity, state:]</i> Materials and equipment delivered on the site but not completely put in place shall be included for payment.
15.1	The date by which operating and maintenance manuals are required is <i>during processing of final payment.</i> The date by which “as built” drawings are required is <i>during processing of final payment.</i>
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 <i>[amount in local currency]</i> .

Section VI. Specifications

DEMOLITION AND REMOVAL WORKS

DESCRIPTION

The work includes the furnishing of all labor, materials and equipment required to carry out the demolition and removal of affected parts of existing port facility, as required for the execution of the Contract.

The Contractor shall keep all pavements and landing areas to and from the site of the disposal area clean and free of mud, dirt and debris during and after the execution of disposal. Disposal of debris and materials shall be as directed by the Engineer.

GENERAL PROVISIONS

1. The Contractor shall be deemed to have satisfied himself of the site conditions, and to have included in his unit prices provision for all risks that may arise during or in connection with the work.
2. The demolition shall be carried out by approved methods and equipment such as concrete breakers, gas-cutters, hydraulic jacks, compressed air disintegrators, etc., however, no blasting shall be used unless approved in writing by the Engineer and after obtaining the written permission of the concerned authorities.
3. The Contractor shall provide suitable equipment, skilled labor and appropriate temporary works such as scaffoldings to ensure safety in his demolition works as well as in the adjacent area.
4. Contractor shall demolish all the structural members above the level on which the subsequent and permanent works under this Contract will begin.
5. Materials coming from the demolition works, except general earth, shall remain the property of the Procuring Entity, the designated part of which shall be stored by the Contractor at places specified by the Engineer.

INTERFERENCE WITH PORT OPERATIONS

During the execution of the work, the Contractor shall not interfere with the shipping, navigation and other traffic in the port.

The Contractor shall make arrangements with the operations people on the schedule of demolition and related works to keep port operation activities undisturbed at all times.

Prior to commencement of the demolition works, the Contractor shall inform/announce to port users the schedule of disconnection of utilities.

STORAGE AND DUMPING

Prior to the commencement of the demolition work, the Engineer shall submit to the Contractor a list in which all the materials to be salvaged and overhauled, as property of PPA, and the description of the location of their storage. Materials embedded in concrete units shall not be salvaged.

The Contractor shall separate materials to be salvaged from debris. Salvaged materials shall be loaded, transported and unloaded by the Contractor at the specified locations.

EXECUTION

1. Prior to the commencement of demolition works, the alignments of the new construction works to existing structure shall be checked.
2. The width and alignment of portion of existing structure to be demolished shall be marked by paint.
3. With these lines as guides, concrete shall be broken and reinforcing bars cut, such that panels or portions of the structure can be lifted out for disposal elsewhere outside of the operational work area.
4. Materials coming from the demolition works shall be properly disposed by the Contractor.

SAFETY

During the course of survey and clearing, any obstacles which are recognized and seemed to be explosive or hazardous to workers shall be removed from the site by the proper Authority.

At the end of each day's work, the Contractor shall keep the workplace in safe condition and clean so that no part is in danger of falling or creating hazard to personnel or equipment.

AGGREGATE BASE COURSE

SCOPE OF WORK

This item shall consist of furnishing, placing and compacting an aggregate base course on a prepared subgrade/sub-base in accordance with this Specification the lines, grades, thickness and typical cross-sections shown on the Plans or as established by the Engineer.

MATERIAL REQUIREMENTS

Aggregate base course shall consist of hard, durable particles or fragments of crushed stone, crushed slag or crushed or natural gravel and filler of natural or crushed sand or other finely divided mineral matter. The composite material shall be free from vegetable matters and lumps or balls of clay, and shall be of such nature that it can be compacted readily to form a firm, stable base.

In some areas where the conventional base course materials are scarce or non-available, the use of 40% weathered limestone blended with 60% crushed stones or gravel shall be allowed, provided that the blended materials meet the requirements of this Item.

The base material shall conform to the grading requirements of Table 3.1, whichever is called for in the Bill of Quantities.

Table 3.1 Grading Requirements

Sieve Designation		Mass Percent Passing	
Standard mm	Alternate US Standard	Grading A	Grading B
50	2"	100	
37.5	1-1/2"	-	100
25.0	1"	60-85	-
19.0	3/4"	-	60-85
12.5	1/2"	35-65	-
4.75	No. 4	20-50	30-55
0.425	No. 40	5-20	8-25
0.075	No. 200	0-12	2-14

The portion of the material passing the 0.075mm (No. 200) sieve shall not be greater than 0.66 (two-thirds) of the fraction passing the 0.425mm (No. 40) sieve.

The portion of the material passing the 0.425mm (No. 40) sieve shall have a liquid limit of not greater than 25 and a plasticity index of not more than 6 as determined by AASHTO T89 and T90, respectively.

The coarse aggregate retained on a 2.00mm (No. 10) sieve shall have a mass percent of wear not exceeding 50 by the Los Angeles Test as determined by AASHTO T 96.

The material passing the 19mm (3/4 inch) sieve shall have a minimum soaked CBR-value of 80% tested according to AASHTO T 193. The CBR-value shall be obtained at the maximum dry density determined according to AASHTO T 180, Method D.

If filter, in addition to that naturally present, is necessary for meeting the grading requirements or for satisfactory bonding, it shall be uniformly blended with the crushed base course material on the road or in a pugmill unless otherwise specified or approved. Filler shall be obtained from sources approved by the Engineer, free from hard lumps and shall not contain more than 15 percent of material retained on the 4.75mm (No. 4) sieve.

EXECUTION

PLACING

The aggregate base material shall be placed at a uniform mixture on a prepared sub-base (selected fill) in a quantity which will provide the required compacted thickness. When more than one layer is required, each layer shall be shaped and compacted before the succeeding layer is placed.

The placing of material shall begin at the point designed by the Engineer. Placing shall be from vehicles especially equipped to distribute the material in a continuous uniform layer or window.

The layer or window shall begin be at such size that when spread and compacted the finished layer be in reasonably close conformity to the normal thickness shown on the Plans.

When hauling is done over previously placed material, hauling equipment shall be dispersed uniformly over the entire surface of the previously constructed layer, to minimize rutting or uneven compaction.

SPREADING AND COMPACTION

When uniformly mixed, the mixture shall be spread to the plan thickness, for compaction.

Where the required thickness is 150mm or less, the material may be spread and compacted in one layer. Where the required thickness is more than 150 mm, the aggregate base shall be spread and compacted in two or more layers of approximately equal thickness, and the

maximum compacted thickness of any layer shall not exceed 150 mm. All subsequent layers shall be spread and compacted in a similar manner.

The moisture content of sub-base material shall, if necessary, be adjusted prior to compaction by watering with approved sprinklers mounted on trucks or by drying out, as required in order to obtain the required compaction.

Immediately following final spreading and smoothing, each layer shall be compacted to the full width by means of approved compaction equipment. Rolling shall progress gradually from the sides to the center, parallel to the centerline of the road and shall continue until the whole surface has been rolled. Any irregularities or depressions that develop shall be corrected by loosening the material at these places and adding or removing material until surface is smooth and uniform. Along curbs, headers, and walls, and at all places not accessible to the roller, the base material shall be compacted thoroughly with approved tampers or compactors.

If the layer of base material, or part thereof, does not conform to the required finish, the Contractor shall, at his own expense, make the necessary corrections.

Compaction of each layer shall continue until a field density of at least 100 percent of the maximum dry density determined in accordance with AASHTO T 180, Method D has been achieved. In-place density determination shall be made in accordance with AASHTO T 191/ASTM D 1556.

TRIAL SECTION

Before finish grade construction is started, the Contractor shall spread and compact trial sections as directed by the Engineer. The purpose of the trial sections is to check the suitability of the materials and the efficiency of the equipment and construction method which is proposed to be used by the Contractor. Therefore, the Contractor must use the same material, equipment and procedures that he proposes to use for the main work. One trial section of about 500 m² shall be made for every type of material and/or construction equipment/ procedure proposed for use.

After final compaction of each trial section, the Contractor shall carry out such field density tests and other tests required as directed by the Engineer.

If a trial section shows that the proposed materials, equipment or procedures in the Engineer's opinion are not suitable for subbase, the material shall be removed at the Contractor's expense, and a new trial section shall be constructed.

If the basic conditions regarding the type of material or procedure change during the execution of the work, new trial sections shall be constructed.

SURVEYS AND SETTING OUT WORKS

Before the commencement of the pavement works, the Contractor together with the Engineer shall conduct topographic survey which will form the basis of quantity measurement.

The Contractor shall set out the works and shall solely responsible for the accuracy of such setting-out.

Prior to placement of any material, the Contractor shall establish visible construction markers to clearly define horizontal limits of the Work.

TOLERANCES

The aggregate base course shall be laid to the designed level and transverse slopes shown on the Plans. The allowable tolerances shall be in accordance with following:

Permitted variation from design THICKNESS OF LAYER	± 10 mm
Permitted variation from design LEVEL OF SURFACE	+ 5 mm - 10 mm
Permitted SURFACE IRREGULARITY Measured by 3-m straight-edge	5 mm
Permitted variation from design CROSSFALL OR CAMBER	$\pm 0.2\%$
Permitted variation from design LONGITUDINAL GRADE over 25 m in length	$\pm 0.1\%$

CONCRETE WORKS

GENERAL

General Requirements contain provisions and requirements essential to these specifications; and apply to this Section, whether or not referred to herein.

SCOPE OF WORK

The work shall include reinforced concrete structures such as reinforced concrete beam, girder, slab, curb and pile cap.

The work shall consist of furnishing of all labor, materials, equipment and other incidentals necessary for the supply of concrete materials and the complete construction of the concrete structures for the structure shown on the drawings in accordance with these specifications and as directed by the Engineer.

GENERAL REQUIREMENTS

Concrete works shall conform with the requirements of "Reinforced Concrete" except noted otherwise in this Section.

SHOP DRAWINGS

Together with requirements, the Contractor shall show the following in the shop drawings:

1. Surface finish
2. Fitting to be embedded

MATERIAL REQUIREMENTS

1. Concrete shall consist of Portland cement, fine and coarse aggregates and water and shall conform with the requirements of "Reinforced Concrete".
2. Deformed bars to be used shall conform with the reinforcement requirements in Section of "Reinforced Concrete". The size shall be as shown on the drawings.

The supplier is required to submit a "Mill Certificate" that the materials delivered to site shall be proven to meet or exceed the following properties:

TECHNICAL PROPERTIES	Unit	Minimum
A. Physical Characteristics:		
Length	Mm	12
Shape	Microns	18
Density	gm nominal	0.91

FORMWORKS

GENERAL REQUIREMENTS

Materials and construction of formwork shall be in accordance with formwork requirements in Reinforced Concrete.

CONCRETE

CLASSES OF CONCRETE AND USAGE

1. Strength Requirement

Concrete strength shall conform with the requirements in Section of "Reinforced Concrete".

SLUMP TEST

Tests shall be made in conformity 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 (mm)	Maximum (mm)
Pre-cast concrete pile	80	180
Wave deflector, wall, column, beam	70	150
Lean concrete	70	150

CONCRETE COVER FOR REINFORCEMENT

Minimum concrete cover for reinforcement shall be as follows:

Net Concrete Cover	Minimum Cover
Concrete cast against and permanently exposed to earth	75
Concrete exposed to earth or weather:	
Primary reinforcement	50
Stirrups, ties, and spirals	40

CONSTRUCTION JOINTS AND WATERSTOPS

Construction joints shall be provided where shown on the drawings or when approved with written permission of the Engineer. Special care shall be used in preparing concrete surfaces at joints where bonding between two sections of concrete is required. Unless otherwise indicated on the drawings, such bonding will be required at all horizontal joints in

REINFORCED CONCRETE

SCOPE OF WORK

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

GENERAL PROVISIONS

1. Full cooperation shall be given to the other trades to install embedded items. Suitable templates or instructions will be provided for setting, items shall have been inspected, and tests for concrete or other materials or for mechanical operations shall have been completed and approved.
2. The following publications of the issues listed below, but referred to thereafter by basic designation only, form as an integral part of this Specification to the extent indicated by the reference thereto:

(i) American Concrete Institute (ACI) Standards:

ACI 117 Standard Specifications for Tolerances for Concrete Construction
and Materials

ACI 121R Quality Management System for Concrete Construction

ACI 201.2R Guide to Durable Concrete

ACI 211.1 Standard Practice for Selecting Proportions for Normal,
Heavyweight, and Mass Concrete

ACI 214R Recommended Practice for Evaluation of Strength Test
Results of Concrete

ACI 301 Specifications for Structural Concrete

ACI 304.2R Placing Concrete by Pumping Methods

ACI 304R Guide for Measuring, Mixing, Transporting, and Placing Concrete

ACI 305 Hot Weather Concreting

ACI 306.1 Standard Specification for Cold Weather Concreting

ACI 308R Guide to Curing Concrete

ACI 309R	Guide for Consolidation of Concrete
ACI 311.4R	Guide for Concrete Inspection
ACI 318M	Metric Building Code Requirements for Structural Concrete and Commentary
ACI 347	Guide to Formwork for Concrete
ACI SP-15	Field Reference Manual: Standard Specifications for Structural Concrete with Selected ACI and ASTM References
ACI SP-2	ACI Manual of Concrete Inspection

a. American Society for Testing and Materials (ASTM) Publications:

ASTM A 185 Standard Specification for Steel Welded Wire Reinforcement,
Plain, for Concrete

ASTM A 496 Standard Specification for Steel Wire, Deformed, for
Concrete Reinforcement

ASTM A 497 Standard Specification for Steel Welded Wire Reinforcement,
Deformed, for Concrete

ASTM A 615 Standard Specification for Deformed and Plain Carbon-Steel
Bars for Concrete Reinforcement

ASTM A 706 Standard Specification for Low-Alloy Steel Deformed and Plain
Bars for Concrete Reinforcement

ASTM A 82 Standard Specification for Steel Wire, Plain, for Concrete
Reinforcement Standard Specification for Epoxy-Coated

ASTM A 934 Prefabricated Steel Reinforcing Bars

ASTM C 1017 Standard Specification for Chemical Admixtures for
use in Producing Flowing Concrete

ASTM C 1064 Standard Test Method for Temperature of Freshly
Mixed Hydraulic-Cement Concrete

ASTM C 1077 Standard Practice for Laboratories Testing Concrete and
Concrete Aggregates for use in Construction and Criteria
for Laboratory Evaluation

ASTM C 1107 Standard Specification for Packaged Dry,
Hydraulic-Cement Grout (Non-shrink)

ASTM C 1157 Standard Specification for Hydraulic Cement

ASTM C 1202 Standard Test Method for Electrical Indication of Concrete's
Ability to Resist Chloride Ion Penetration

ASTM C 1218 Standard Specification for Water-Soluble Chloride in
Mortar and Concrete

ASTM C 1240 Standard Specification for Silica Fume used in
Cementitious Mixtures

b. American Welding Society (AWS)

D 12 Welding Reinforcing Steel, Metal Inserts and Connections in Reinforced
Concrete Construction.

c. All other standards hereinafter indicated.

d. The edition or the revised version of such codes and standards current at the date
twenty-eight (28) days prior to date of bid submission shall apply. During Contract
execution, any changes in such codes and standards shall be applied after approval by
the Owner.

SUBMITTALS

1. Test Reports and Certificates shall be furnished and approval received before delivery of certified or tested materials to the Project Sites.
 - a. Submit Test Reports for the following:
 - a.1 Concrete mixture proportions

Submit copies of test reports by independent test labs conforming to ASTM C 1077 showing that the mixture has been successfully tested to produce concrete with the properties specified and that mixture will be suitable for the job conditions. Test reports shall be submitted along with the concrete mixture proportions. Obtain approval before concrete placement. Fully describe the processes and methodology whereby mixture proportions were developed and tested and how proportions will be adjusted during progress of the work to achieve, as closely as possible, the designated levels of relevant properties.
 - a.2 Aggregates

Submit test results for aggregate quality in accordance with ASTM C 33. Where there is potential for alkali-silica reaction, provide results of tests conducted in accordance with ASTM C 227 or ASTM C 1260. Submit results of all tests during progress of the work in tabular and graphical form as noted above, describing the cumulative combined aggregate grading and the percent of the combined aggregate retained on each sieve.
 - a.3 Cement

Submit test results in accordance with ASTM C 150 Portland cement and/or ASTM C 595 and ASTM C 1157 for blended cement. Submit current mil data.

MATERIAL REQUIREMENTS

CEMENT

Unless otherwise specified in the Drawings, only one (1) brand of cement shall be used for any individual structure. In determining the approved mix, only Portland cement shall be used as the cementitious material.

1. Portland Cement: ASTM C 150
Type I (for general use in construction)

ADMIXTURE (IF NECESSARY)

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

1. Air Entraining Admixture shall conform to ASTM C 260.
2. Admixture other than air entraining agent shall conform to ASTM C 494.
3. Admixture containing chloride ions, or other ions producing deleterious effect shall not be used.

AGGREGATES

1. Crushed Coarse Aggregate

Conforming to ASTM C 33 and having nominal sizes passing 38.0 mm to 19.0 mm, 19.0 mm to 9.5 mm to No. 4 sieve. The material shall be well graded between the limits indicated and individually stockpiled. It shall be the Contractor's responsibility to blend the materials to meet the gradation requirements for various types of concrete as specified herein.

Nominal sizes for combined gradation shall be as follows:

ASTM Sieves	Nominal Size of Coarse Aggregates			
	% by Weight Passing			
	40 mm	25 mm	19 mm	10 mm
50.0mm (2")	100	-	-	-
38.0mm (1 1/2")	95 – 100	100	-	-
31.8mm (1 1/4")	-	90 - 100	100	-
25.0mm (1")	-	-	90 – 100	-
19.0mm (3/4")	35 – 70	25 – 90	-	100
16.0mm (5/8")	-	-	20 – 55	85 – 100
9.5mm (3/8")	10 – 30	0 - 10	0 - 10	0 – 20
No. 4	0 - 5			

2. Fine Aggregate

ASTM C 33 except for gradation which has been revised to meet local conditions unless otherwise required by the Engineer, grading of fine aggregate shall be as follows:

ASTM Sieves	% by Weight Passing
9.5mm (3/8")	100
No. 4	90 – 100
No. 8	80 – 100
No. 16	50 – 90
No. 30	25 – 60
No. 50	10 – 30
No. 100	2 - 10

- a. Grading of fine aggregates shall be reasonably uniform and fineness modulus thereof shall not vary more than 0.2 from that of the representative sample in which mix proportions of concrete are based.
- b. Due care shall be taken to prevent segregation.

WATER

The mixing water shall be clear and apparently clean. If it contains quantities or substances that discolor it or make it smell or taste unusual or objectionable, or use suspicion, it shall not be used unless service records of concrete made with it (or other information) indicated that it is not injurious to the quality, shall be subject to the acceptance criteria as shown in Table 3.3 and Table 3.4 or as designated by the purchaser.

When wash water is permitted, the producer will provide satisfactory proof or data of non-detrimental effects if potentially reactive aggregates are to be used. Use of wash water will be discontinued if undesirable reactions with admixtures or aggregates occur.

Wash water reused as mixing water in concrete may exceed the listed concentrations of sulfate if it can be shown that the concentration calculated in the total mixing water, including mixing water on the aggregate and other sources, does not exceed that stated limits.

Water will be tested in accordance with, and shall meet the suggested requirements of AASHTO T 26.

Water known to be of potable quality may be used without test.

CURING MATERIALS

1. Impervious Sheet Materials
ASTM C 171 type, optional, except that polyethylene film, if used, shall be white opaque.
2. Burlap of commercial quality, non-staining type, consisting of 2 layers minimum.
3. Membrane Forming Curing Compound
ASTM C 309; submit evidence that product conforms to specifications.

REINFORCEMENT

Steel reinforcement, other than Steel for Pre-stressing, used in Reinforced Concrete, shall conform to ASTM as follows:

ASTM Designation A615 - Deformed Billet Steel Bars for Concrete Reinforcement. Minimum yield strength of 276 MPa (40,000 psi), for 12mm dia. and below. Minimum yield strength of 414 MPa (60,000 psi), for 16mm dia. and above,

TIE WIRE

Tie wire shall be plain, cold drawn annealed steel wire 1.6 mm diameter.

SAMPLES AND TESTING

1. Cement

Sampled either at the mill or at the site of work and tested by an independent commercial or government testing laboratory duly accredited by the Bureau of Research and Standards (BRS) of the DPWH, Department of Science and Technology (DOST) or the Department of Trade and Industry (DTI) at no additional cost to PPA. Certified copies of laboratory test reports shall be furnished for each lot of cement and shall include all test data, results, and certificates that the sampling and testing procedures are in conformance with the Specifications. No cement shall be used until notice has been given by the Engineer that the test results are satisfactory. Cement that has been stored, other than in bins at the mills, for more than 3 months after delivery to the Site shall be re-tested before use. Cement delivered at the Site and later found after test to be unsuitable shall not be incorporated into the permanent works.
2. Aggregates: Tested as prescribed in ASTM C 33

At least 28 days prior to commencing the work, the Contractor shall inform the Engineer of the proposed source of aggregates and provide access for sampling.

Gradation tests will be made on each sample without delay. All other aggregates tests required by these Specifications shall be made on the initial source samples, and shall be repeated

whenever there is a change of source. The tests shall include an analysis of each grade of material and an analysis of the combined material representing the aggregate part of the mix.

3. Reinforcement

Certified copies of mill certificates shall accompany deliveries of steel bar reinforcement. If requested by the Engineer additional testing of the materials shall be made at the Contractor's expense.

4. Concrete Tests

For test purposes, provide four (4) sets of test specimens taken under the instruction of the Engineer from each 50 cu.m. or fraction thereof of each class of concrete placed. At least one (1) set of test specimen shall be provided for each class of concrete placed in each 8-hour shift. Each shall consist of two test specimens, and shall be made from a separate batch. Samples shall be secured in conformance with ASTM C 172. Tests specimens shall be made, cured, and packed for shipment in accordance with ASTM C 31. Cylinders will be tested by and at the expense of the Contractor in accordance with ASTM C 39. Test specimens will be evaluated separately by the Engineer, for meeting strength level requirements for each with concrete quality of ACI 318. When samples fail to conform to the requirements for strengths, the Engineer shall have the right to order a change in the proportions of the concrete mix for the remaining portions of the work at no additional cost to the Authority.

5. Test of Hardened Concrete in or Removed from the Structure

When the results of the strength tests of the concrete specimens indicates the concrete as placed does not meet the Specification requirements or where there are other evidences that the quality of concrete is below the specification requirement in the opinion of the Engineer, tests on cores of in-place concrete shall be made in conformance with ASTM C 42.

Core specimens shall be obtained by the Contractor and shall be tested. Any deficiency shall be corrected or if the Contractor elects, he may submit a proposal for approval before the load test is made. If the proposal is approved, the load test shall be made by the Contractor and the test results evaluated by the Engineer in conformance with Chapter 20 of ACI 318_ The cost of the load tests shall be borne by the Contractor. If any concrete shows evidence of failure during the load test, or fails the load test as evaluated, the deficiency be corrected in a manner approved by the Engineer at no additional cost to the Authority.

6. Admixtures/Additives

The admixtures/additives if approved shall be tested for conformance to the referenced specification under which it is furnished. The testing shall be conducted with cement and aggregate proposed for the Project. The admixtures/additives shall be tested and those that have been in storage at the Project Site for longer than six (6) months shall not be used until proven by retest to be satisfactory.

Five (5) liters of samples of any admixtures/additives proposed by the Contractor shall be submitted for testing at least 56 days in advance of use, which shall require approval of the Engineer. Testing of admixtures/additives proposed by the Contractor including test mixing and cylinder test shall be at the Contractor's expense.

7 Jointing Materials and Curing Compound Samples

At least 28 days prior to commencing the work, the Contractor shall submit to the Engineer for his approval samples of the following materials proposed for use together with manufacturer's certificate.

- a. 10 kg of joint sealant
- b. 1m length of joint filler
- c. 5 li. of curing compound
- d. 1m length of joint backing

The Engineer shall deliver to the Contractor his assessment on the materials within seven (7) days after receiving them.

EXECUTION

DELIVERY, STORAGE AND HANDLING OF MATERIALS

1. Cement

Do not deliver concrete until vapor barrier, forms, reinforcement, embedded items, and chamfer strips are in place and ready for concrete placement. ACI 301 and ASTM A 934 for job site storage of materials. Protect materials from contaminants such as grease, oil, and dirt. Ensure materials can be accurately identified after bundles are broken and tags removed.

Immediately upon receipt at the Site, the cement shall be stored separately in dry weathertight, properly ventilated structures with adequate provisions for prevention of absorption of moisture. Storage accommodations for concrete materials shall be subject to approval and shall afford easy access for inspection and identification of each shipment in accordance with test reports.

Cement shall be delivered to the Site in bulk or in sound and properly sealed bags and while being loaded or unloaded and during transit to the concrete mixers whether conveyed in vehicles or in mechanical means, cement shall be protected from weather by effective coverings. Efficient screens shall be supplied and erected during heavy winds.

If the cement is delivered in bulk, the Contractor shall provide, at his own cost, approved silos of adequate size and numbers to store sufficient cement to ensure continuity of work and the cement shall be placed in these silos immediately after it has been delivered to the Site. Approved precautions shall be taken into consideration during unloading to ensure that the resulting dust does not constitute a nuisance.

If the cement is delivered in bags, the Contractor shall provide, at his own cost, perfectly waterproofed and well ventilated sheds having a floor of wood or concrete raised at least 0.5m above the ground. The sheds shall be large enough to store sufficient cement to ensure continuity of the work and each consignment shall be stacked separately therein to permit easy access for inspection, testing and approval. Upon delivery, the cement shall at once be placed in these sheds and shall be used in the order in which it has been delivered.

Cement bags should not be stacked more than 13 bags high. All cement shall be used within two months of the date of manufacture. If delivery conditions render this impossible, the Engineer may permit cement to be used up to three (3) month after manufacturing, subject to such conditions including addition of extra cement as he shall stipulate.

2. Aggregate

All fine and coarse aggregate for concrete shall be stored on dose fitting, steel or concrete stages design with drainage slopes or in bins of substantial construction in such a manner as to prevent segregation of sizes and to avoid the inclusion of dirt and other foreign materials in the concrete. All such bins shall be emptied and cleaned at intervals of every six (6) months or as required by the Engineer. Each size of aggregate shall be stored separately unless otherwise approved by the Engineer.

Stockpiles of coarse aggregate shall be built in horizontal layers not exceeding 1.2 m in depth to minimize segregation.

FORMWORK

1. Forms

Designed, constructed, and maintained so as to ensure that after removal of forms the finished concrete members will have true surfaces free of offset, waviness or bulges and will conform accurately to the indicated shapes, dimensions, lines, elevations and positions. Form surfaces that will be in contact with concrete shall be thoroughly cleaned before each use.

2. Design

Studs and wales shall be spaced to prevent deflection of form material. Forms and joints shall be sufficiently tight to prevent leakage of grout and cement paste

during placing of concrete. Juncture of formwork panels shall occur at vertical control joints, and construction joints. Forms placed on successive units for continuous surfaces shall be fitted in accurate alignment to assure smooth completed surfaces free from irregularities and signs of discontinuity. Temporary opening shall be arranged to wall and where otherwise required to facilitate cleaning and inspection. Forms shall be readily removable without impact, shock, or damage to the concrete.

3. Form Ties

Factory fabricated, adjustable to permit tightening of the forms, removable or snap-off metal of design that will not allow form deflection and will not spall concrete upon removal. Bolts and rods that are to be completely withdrawn shall be coated with a non-staining bond breaker. Ties shall be of the type which provides watertight concrete.

4. Chamfering

External comers that will be exposed shall be chamfered, beveled, or rounded by mouldings placed in the forms or as indicated in the drawings.

5. Coatings

Forms for exposed surfaces shall be coated with form oil or form-release agent before reinforcement is placed. The coating shall be a commercial formulation of satisfactory and proven performance that will not bond with, stain, or adversely affect concrete surfaces, and shall not impair subsequent treatment of concrete surfaces depending upon bond or adhesion nor impede the wetting of surfaces to be cured with water or curing compounds. The coating shall be used as recommended in the manufacturer's printed or written instructions. Forms for unexposed surfaces may be wet with water in lieu of coating immediately before placing of

concrete. Surplus coating on form surfaces and coating on reinforcement steel and construction joints shall be removed before placing concrete.

6. Removal of Forms shall be done in a manner as to prevent injury to the concrete and to insure complete safety of the structure after the following conditions have been met. Where the structure as a whole is supported on shores, forms for beam and girder sides, and similar vertical structural members may be removed before expiration of curing period. Care shall be taken to avoid spalling the concrete surface or damaging concrete edges. Wood forms shall be completely removed.

Minimum stripping and striking time shall be as follows unless otherwise approved by the Engineer.

7. Control Test

If the Contractor proposes to remove forms earlier than the period stated above, he shall be required to submit the results of control tests showing evidence that concrete has attained sufficient strength to permit removal of supporting forms. Cylinders required for control tests shall be provided in addition to those otherwise required by this Specification. Test specimens shall be removed from molds at the end of 24 hours and stored in the structure as near the points as practicable, the same protection from the elements during curing as is given to those portions of the structure which they represent, and shall not be removed from the structure for transmittal to the laboratory prior to expiration of three fourths of the proposed period before removal of forms. Cylinders will be tested by and at the expense of the Contractor. Supporting forms or shoring shall not be removed until control test specimens have attained strength of at least 160 kg/sq cm. The newly unsupported portions of the structure shall not be subjected to heavy construction or material loading.

REINFORCEMENT

1. Reinforcement

Fabricated to shapes and dimensions shown and shall be placed where indicated. Reinforcement shall be free of loose or flaky rust and mill scale, or coating, and any other substance that would reduce or destroy the bond. Reinforcing steel reduced in section shall not be used. After any substantial delay in the work, previously placed reinforcing steel for future bonding shall be inspected and cleaned. Reinforcing steel shall not be bent or straightened in a manner injurious to the steel or concrete. Bars with kinks or bends not shown in the drawings shall not be placed. The use of heat to bend or straighten reinforcing steel shall not be permitted. Bars shall be moved as necessary to avoid interference with other reinforcing steel, conduits, or embedded items. If bars are moved more than one bar diameter, the resulting arrangement of bars including additional bars necessary to meet structural requirements shall be approved before concrete is placed. In slabs, beams and girders, reinforcing steel shall not be spliced at points of maximum stress unless otherwise indicated. Unless otherwise shown in the drawings, laps or splices shall be 40 times the reinforcing bar diameter.

2. The nominal dimensions and unit weights of bars shall be in accordance with the following table:

Nominal Diameter (mm)	Nominal Perimeter (mm)	Nominal Sectional Area (sq. mm.)	Unit Weight (kg./m.)
10	31.4	78.54	0.616
12	37.7	113.10	0.888
16	50.3	201.10	1.579

3. Welding of reinforcing bars shall only be permitted where shown; all welding shown shall be performed in accordance with AM D 12.1.
4. Exposed reinforcement bars, dowels and plates intended for bonding with future extensions shall be protected from corrosion.
5. Supports shall be provided in conformance with ACI 315 and ACI 318, unless otherwise indicated or specified.
6. Concrete Protection for Reinforcement
- a. The minimum concrete cover of reinforcement shall be as shown below unless otherwise indicated in the drawings.
 - b. Tolerance for Concrete Cover of Reinforcing Steel other than Tendons.

Minimum Cover

7.5cm or more (marine structures and concrete cast against and permanently exposed to earth)

DESIGN STRENGTH OF CONCRETE

Concrete for structural parts or members such as RC wall, beams and columns shall develop a minimum 28-day compressive cylinder strength of 24 Mpa (3,500 psi) as indicated in the drawings.

TRIAL BATCH FOR CONCRETE

Slump Test shall be made in conformance with ASTM C143, and unless otherwise specified by the Engineer, slump shall be within the following limits:

Structural Element	Slump for Vibrated Concrete	
	Minimum	Maximum
Lean Concrete	100mm	200mm
Sacked Concrete	25mm	50mm
All Other Concrete	50mm	90mm

Sampling : Provide suitable facilities and labor for obtaining representative samples of concrete for the Contractor's quality control and the Engineer's quality assurance testing. All necessary platforms, tools and equipment for obtaining samples shall be furnished by the Contractor.

MIXING CONCRETE

1. GENERAL

- a. Concrete shall be thoroughly mixed in a mixer of an approved size and type that will insure a uniform distribution of the materials throughout the mass.
- b. All concrete shall be mixed in mechanically operated mixers. Mixing plant and equipment for transporting and placing concrete shall be arranged with an ample auxiliary installation to provide a minimum supply of concrete in case of breakdown of machinery or in case the normal supply of concrete is disrupted. The auxiliary supply of concrete shall be sufficient to complete the casting of a section up to a construction joint that will meet the approval of the Engineer.
- c. Equipment having components made of aluminum or magnesium alloys, which would be in contact with plastic concrete during mixing, transporting or pumping of Portland cement concrete, shall not be used.
- d. Concrete mixers shall be equipped with adequate water storage and a device for accurately measuring and automatically controlling the amount of water used.
- e. Materials shall be measured by weighing. The apparatus provided for weighing the aggregates and cement shall be suitably designed and constructed for this purpose. The accuracy of all weighing devices except that for water shall be such that successive quantities can be measured to within one percent of the desired amounts. The water measuring device shall be accurate to plus or minus 0.5 percent. All measuring devices shall be subject to the approval of the Engineer. Scales and measuring devices shall be tested at the expense of the Contractor as frequently as the Engineer may deem necessary to insure their accuracy.

- f. Weighing equipment shall be insulated against vibration or movement of other operating equipment in the plant. When the entire plant is running, the scale reading at cut-off shall not vary from the weight designated by the Engineer by more than one percent for cement, 1-1/2 percent for any size of aggregate, or one percent for the total aggregate in any batch.
- g. Manual mixing of concrete shall not be permitted unless approved by the Engineer.

2. MIXING CONCRETE AT SITE

- a. Concrete mixers may be of the revolving drum or the revolving blade type and the mixing drum or blades shall be operated uniformly at the mixing speed recommended by the manufacturer.

The pick-up and throw-over blades of mixers shall be restored or replaced when any part or section is worn 20 mm or more below the original height of the manufacturer's design. Mixers and agitators which have an accumulation of hard concrete or mortar shall not be used.

- b. When bulk cement is used and the volume of the batch is 0.5 m³ or more, the scale and weigh hopper for Portland cement shall be separate and distinct from the aggregate hopper or hoppers.

The discharge mechanism of the bulk cement weigh hopper shall be interlocked against opening before the full amount of cement is in the hopper. The discharging mechanism shall be interlocked against opening when the amount of cement in the hopper is underweight by more than one percent or overweight by more than 3 percent of the amount specified.

- c. When the aggregates contain more water than the quantity necessary to produce a saturated surface dry condition, representative samples shall be taken and the moisture content determined for each kind of aggregate.
- d. The batch shall be so charged into the mixer that some water enter in advance of cement and aggregates. All water shall be in the drum by the end of the first quarter of the specified mixing time.
- e. Cement shall be batched and charged into the mixer by such means that it will not result in loss of cement due to the effect of wind, or in accumulation of cement on surfaces of conveyors or hoppers, or in other conditions which reduce or vary the required quantity of cement in the concrete mixture.
- f. Where required, synthetic fibrous reinforcement shall be added directly to the concrete mixer after placing the sufficient amount of mixing water, cement and aggregates.
- g. The entire contents of a batch mixer shall be removed from the drum before materials for a succeeding batch are place therein. The materials composing a batch except water shall be deposited simultaneously into the mixer.

- h. All concrete shall be mixed for a period of not less than 3 minutes after all materials, including water, are in the mixer. During the period of mixing, the mixer shall operate at the speed for which it has been designed.
- i. Mixers shall be operated with an automatic timing device that can be locked by the Engineer. The time device and discharge mechanism shall be so interlocked that during normal operation no part of the batch will be discharged until the specified mixing time has elapsed.
- j. The first batch of concrete materials placed in the mixer shall contain a sufficient excess of cement, sand, and water to coat the inside of the drum without reducing the required mortar content of the mix. When mixing is to cease for a period of one hour or more, the mixer shall be thoroughly cleaned.

3. MIXING CONCRETE IN TRUCKS

- a. Truck mixers, unless otherwise authorized by the Engineer, shall be of the revolving drum type, watertight, and so constructed that the concrete can be mixed to insure a uniform distribution of materials throughout the mass. All solid materials for the concrete shall be accurately measured and charged into the drum at the proportioning plant. Except as subsequently provided, the truck mixer shall be equipped with a device by which the quantity of water added can be readily verified. The mixing water may be added directly to the batch, in which case a tank is not required. Truck mixers may be required to be provided with a means by which the mixing time can be readily verified by the Engineer.
- b. The maximum size of batch in truck mixers shall not exceed the minimum rated capacity of the mixer as stated by the manufacture and stamped in metal on the mixer. Truck mixing shall, unless otherwise directed, be continued for not less than 100 revolutions after all ingredients, including water, are in the drum. The mixing speed shall not be less than 4 rpm, nor more than 6 rpm.
- c. Mixing shall begin within 30 minutes after the cement has been added either to the water or aggregate, but when cement is charged into a mixer drum containing water or surface-wet aggregate and when the temperature is above 32 °C, this limit shall be reduced to 15 minutes. The limitation in time between the introduction of the cement to the aggregate and the beginning of the mixing may be waived when, in the judgment of the Engineer, the aggregate is sufficiently free from moisture, so that there will be no harmful effects on the cement.

When a truck mixer is used for transportation, the mixing time in stationary mixer may be reduced to 30 seconds and the mixing completed in a truck mixer. The mixing time in truck mixer shall be as specified for truck mixing.

STEEL AND METAL WORKS

GENERAL

SCOPE OF WORK

The work includes the furnishing of all labor, material and equipment required for performing all operations in the fabrication and installation of structural steel and miscellaneous metal work as specified and shown on the drawings.

Materials shall conform to the requirements hereinafter specified. Connections for which details are not indicated shall be designed in accordance with the American Institute of Steel Construction, Manual of Steel Construction, latest edition, and shall be welded or bolted, except as shown otherwise.

Bolted connections for structural steel work shall be made with high strength steel bolts. Holes shall be provided where necessary for securing other work to steel framing. Steel less than 4.75 mm thick shall be in accordance with the American Iron and Steel Institute's light gauge Steel Design Specification.

Materials and parts necessary to complete each item, even though such work is not definitely shown or specified, shall be included. Miscellaneous bolts and anchors, supports, braces and connections necessary for completion of the work shall be provided.

STANDARDS INCLUDED IN THE SPECIFICATIONS

The following publications listed below form a part of these Specifications to the extent indicated by the reference thereto.

1. American Institute of Steel Construction (AISC) Publication:

Specification for the Design, Fabrication and Erection of Structural Steel for Buildings.

2. American Society for Testing and Materials (ASTM) Publications:

A-123 Zinc (Hot-Galvanized) Coating Products Fabricated from Rolled Pressed and Forged Steel Shapes, Plates, Bars and Strips

A-153 Zinc Coating (Hot-Dip) on Iron and Steel Hardware

A-386 Zinc Coating (Hot-Dip) on Assembled Steel Products

3. American Welding Society (AWS) Publications:

D1.1 Structural Welding Code

4. Japanese Industrial Standard (JIS) Publication:

JIS B 1186 Sets of High Strength Hexagon Bolts, Hexagon Nuts, and Plain Washers for Friction Grip Joints

JIS G 3101 Rolled Steel for General Structures

JIS G 3444 Carbon Steel Tubes for General Structural Purposes

JIS G 3445 Carbon Steel Tubes for General Structural Purposes

JIS G 3452 Carbon Steel Pipes for Ordinary Piping

JIS G 3454 Carbon Steel Pipes for Pressure Services

JIS G 4303 Stainless Steel Bars

JIS G 4313 Cold Rolled Stainless Steel Strip for Spring

JIS G 4051 Carbon Steel for Machine Structural Use

STORAGE

Structural material, either plain or fabricated, shall be stored above the ground upon platforms, skids or other supports. Materials shall be kept free from dirt, grease and other foreign matter and shall be protected from corrosion.

SUBMITTALS

1. Shop Drawings

The Contractor shall submit shop drawings for the whole of the steelwork to the Engineer for approval. All such drawings shall show the dimensions of all parts, method of construction, spacing of rivets, bolts, welding, sectional areas and all other details. Riveted or welded construction may be employed subject to approval and neatness of design. Where welds are used, either at works or on site, they shall wherever possible, be continued and returned around any meeting face to ensure that the joints are completely sealed against corrosion.

The details of connections on shop drawings shall be such as to minimize formation of pockets to hold condensation, water or dirt and a minimum gap between abutting angles and the like shall be provided wherever possible to eliminate any traps and facilitate maintenance painting.

No material shall be ordered nor fabrication commenced until such drawings are approved by the Engineer in writing.

The Contractor shall be responsible for all errors of detailing fabrication and for correct fitting of the structural members.

2. Erection Procedures

The Contractor shall submit work program and statement to illustrate the structural steel erection and temporary staying and bracing and to give clarification on data submitted by him should the Engineer requested the same. He shall also submit the data on welding equipment he proposes to use in the field, such data shall include the type, voltage and amperage of the said equipment and be subject to approval of the Engineer.

3. Proof of Compliance with the Specifications for Materials

The Contractor shall submit the following test results as a proof that the materials he will use complies with the requirement of the specifications.

a. Reports of ladle analysis for steel

- 1) Mill tests reports for main members
- 2) Fabrication's affidavit for secondary and detail members.

b. Reports of tensile properties and bed tests for:

- 1) Steel shapes
- 2) Steel bars
- 3) Steel plates

c. Certification of conformance for:

- 1) Structural steel tubing
- 2) Steel bar grating
- 3) Filler metals for welding

d. Reports of mechanical properties of headed stud type shear connectors.

e. Reports of mechanical tests for high strength threaded fasteners.

4. Manufacturer's Literature

The Contractor shall submit manufacturer's literature describing the type of welding studs and arc shields used.

5. Inspection Report

The Contractor shall likewise submit the result of inspection tests specified in this Sub-section.

MATERIAL REQUIREMENTS

All materials shall be of new stock, free from surface imperfections and shall conform to the applicable ASTM, JIS, AISC or other equivalent standards.

Structural steel plates, shapes, grating and bars shall conform to JIS G 3101 SS 41.

Structural carbon steel shall conform to ASTM designations A 36 or equivalent. Shapes of structural members shall be as given in AISC, Manual of Steel Construction or equivalent.

High strength structural bolts, nuts and washers shall conform to JIS B 1186 F 11T.

Electrodes for arc welding shall conform to American Welding Society Specification A5.1.

Chains and fittings for fender systems shall conform to JIS F 3303 "Electrical Welded Anchor Chain Cables". All chains and accessories shall be hot-dip galvanized.

EXECUTION

QUALIFICATION

1. Steel Fabricator

Steel Fabricators shall have a minimum of 5 years experience in fabrication of structural steel for projects of similar size. The Contractor shall submit a written description of fabrication ability including facilities, personnel and lists of similar completed projects, including quality control capability and specifically the type and extent of quality control procedure which the fabricator intends to employ on this project.

2. Steel Erector

Steel Erectors shall have a minimum of 5 years experience in the erection of structural steel structures of similar size to the proposed structure. The Contractor shall submit a written description of structural steel erection ability including equipment, personnel and a list of completed projects.

3. Qualified Welders and Welding Procedures

Welders, tackers, welding procedures and operations shall be in accordance with AWS D1.1. The Contractor shall submit for the Engineer's approval the welding procedure, welder's qualifications and the test results of each type of welding to be performed.

Procedures shall be developed for welding all metals included in the work. The Contractor shall not start welding until procedures, welders, welding operator and tackers have been qualified as specified herein.

The Contractor shall perform qualification testing by an approved testing laboratory, or by the Contractor if approved by the Engineer. Cost of such testing shall be borne by the Contractor. The Contractor shall qualify each welder, welding operator and tacker assigned to work on this project by tests using equipment, positions, procedures, base metal and electrodes that will be encountered in their assignment. The Contractor shall furnish to the Engineer for approval certification that each welder, welding operator and tacker is qualified in accordance with the requirements of AWS D1.1 or approved equal.

WELDING

1. General

All welders, welding operators and tackers to be employed on the Works shall have been qualified by tests prescribed by the Structural Welding Code of American Welding Society (AWS D1).

Before the work is started the welding procedure of each type of joint shall be approved by the Engineer and the Contractor shall make such trial welds and tests as required for the proposed method.

2. Equipment

Machine welding shall be used wherever possible. All shop welds shall be carried out by qualified operators under proper supervision. The work shall be properly prepared for welding and the correct sequence adhered to.

All site welding shall be carried out by the electric arc process, with coated electrodes.

The welding plant shall be of modern design and with ample capacity to provide the required current to each welding point without appreciable fluctuations.

3. Welding Material

The Contractor shall employ only welding electrodes, welding wire and fluxes capable of producing satisfactory welds when used by qualified welders or welding operators using qualified welding procedures. Filler metals for welding may be any or combination of the following:

- a. Shielding metal-arc welding: AWS A5.1 or A 5.5
- b. AWS A 5.18 and Article 417 of AWS Building code
- c. Flux core arc welding: AWS A5.2 and article 418 of AWS Building Code.

4. Welded Construction

Welded connection shall be permitted only where indicated on the approved shop drawings. Welded construction shall conform to the following:

- a. Surfaces to be welded shall be free from loose scale, slag, rust, grease, paint and any other foreign materials except that mill scale which withstands vigorous wire brushing may remain. Joint surfaces shall be free from fins and tears. Preparation of edges by gas cutting shall, wherever practicable, be done by a mechanically guided torch.
- b. Parts to be fillet welded shall be brought in as close contact as practicable and in no event shall be separated by more than 4.75mm. If the separation is 1.6 mm or greater, the size of the filler welds shall be increased by the amount of the separation. The separation between facing surfaces of lap joints and the butt joints on a backing structure shall not exceed 1.6 mm. The fit of joints at contact surfaces which are not completely sealed by welds shall be close enough to exclude water after painting.
- c. Abutting parts to be butt welded shall be carefully aligned. Misalignments greater than 3.2 mm shall be corrected and in making the correction, the part shall not be drawn into a sharper slope than 2 degrees. Prior to welding, all parts shall be held securely in position by tack welds, clamps or other means.
- d. The work shall be positioned for flat welding whenever practicable.
- e. The technique of welding employed, the appearance and quality of welds made, and the methods used in correcting defective work shall conform to Section 4 - Workmanship, of the Standard Code for Arc and Gas Welding in Building Construction of the American Welding Society.

FABRICATION

The Contractor shall fabricate structural steel in the shop to the greatest extent possible for transporting in accordance with AISC Building Code with the modifications and additional requirements specified in this section.

Bolted or welded connections shall be provided whether constructed in the shop or in the field as shown on the drawings or as approved by the Engineer. High strength threaded fasteners for all bolted connections shall be used unless otherwise shown on the drawings or approved by the Engineer.

Connections shall be as shown on the drawings or as approved by the Engineer. Holes shall be cut, drilled, or punched at right angles to the surface of the metal and shall not be made or enlarged by burning. Draw allowance shall be made for draw in all tension bracing.

All sharp edges and corners be ground to a minimum radius of 1 mm and all sharp irregularities, burrs, slag and spatters on welds shall be removed.

Bearing plates shall be provided under beams resting on concrete walls.

TEST AND INSPECTION

Welds shall be inspected visually. A min. 10% of all butt welds and a min. 5% of all fillet welds to be designated by the Engineer shall be examined by radiographic, liquid penetrant, magnetic particle or ultrasonic method, alone or in combination to determine conformance to the acceptance specified herein. All testing shall be performed by an approved testing agency performed in the presence of the Engineer. All tests shall be certified and submitted to the Engineer.

DELIVERY TO SITE

Anchor bolts and other anchorage devices which are to be embedded in cast-in-place concrete construction shall be delivered to site before the start of the said work.

The Contractor shall number in accordance with shop drawings the materials tested and approved by the Engineer before delivery to the site, and prepare a list showing number, size, quality and quantities of materials.

Material shall be transported in accordance with material list and transportation schedule approved by the Engineer.

Materials shall be protected to prevent damage during transportation. The Contractor shall package and label small parts such as bolts and rivets.

FIELD ERECTION

Steel erection shall conform to the requirements of these Specifications and to the applicable requirements of AISC, "Specification for the Design, Fabrication, and Erection of Structural Steel for Building" and the AISC "Code of Standard Practice for the Steel Building and Bridges".

The Contractor shall set and wedge or shim loose bearing plates and erect individual pieces not deviating from vertical level and alignment more than 1 in 500.

For the field assembly the Contractor shall:

1. Assemble structural steel frames accurately to the lines and elevations indicated and within the specified erection tolerance.
2. Align and adjust accurately various members forming parts of a complete frame of structure before fastening.
3. Fasten splices of compression members after the abutting surfaces have brought completely into contact.
4. Clean bearing surfaces in permanent contact of all rust and scale and surface coated with the required corrosion protection before members are assembled.
5. Provide splices only where indicated.
6. Provide bolted and welded field connections as specified in this Section.
7. Remove run-off tabs and grid surfaces where requested by the Engineer.
8. Clean weld spatter from contact surface.

Field correction of fabrication by gas cutting shall not be permitted on any major member of the structural framing without prior approval of the Engineer.

Structural steel members of high strength steel shall be marked to permit visual verification of the grade of steel used.

BOLTING

Bolts shall be driven accurately into the holes without damaging the thread. Bolt heads shall be protected from damage during driving. Bolt heads and nuts shall rest squarely against the metal. Where bolts are to be used on beveled surfaces having slopes greater than 1 in 20 with a plane normal to the bolt axis, beveled washers shall be provided to give full bearing to the head or nut. Where self locking nuts are not furnished, bolt threads shall be upset to prevent the nuts from backing off.

Unfinished bolts transmitting shear shall be threaded to such a length that not more than one thread will be within the grip of the metal. The bolts shall be of the length that will extend entirely through but not more than 6.4mm beyond the nuts. Bolts heads and nuts shall be drawn tight against the work with a suitable wrench not less than 80 mm long. Bolt heads shall be tapped with a hammer while the nut is being tightened. After having been finally tightened, nuts shall be locked.

Alternatively, bolts shall be tightened with a torque wrench to the appropriate torque for the bolt diameter.

GALVANIZING

Galvanizing, where called for, shall conform to the requirements of ASTM A123. The required weight of the zinc coating for each type of material category with corresponding range of thickness is shown below in compliance with ASTM A 123.

Minimum Average Coating Thickness Grade by Material Category

Material Category	All Specimens Tested (Steel Thickness Range (Measured), in. (mm))				
	<1/16 (<1.6)	1/16 to < 1/8 (1.6 to <3.2)	1/8 to <3/16 (3.2 to 4.8)	>3/16 to <1/14 (>4.8 to <6.4)	≥1/4 (≥6.4)
Structural Shapes & Plate	45	65	75	85	100
Strip & Bar	45	65	75	85	100
Pipe & Tubing	45	45	75	75	75
Wire	35	50	60	65	80

Coating Thickness Grade

Coating Grade	mils	Oz/ft2	µm	g/m2
35	1.4	0.8	35	245
45	1.8	1	45	320
50	2	1.2	50	355
55	2.2	1.3	55	390
60	2.4	1.4	60	425
65	2.4	1.5	65	460
75	3	1.7	75	530
80	3.1	1.9	80	565
85	3.3	2	85	600
100	3.9	2.3	100	705

Conversion Factors

Mils = µm x 0.03937

Oz/ft2 = µm x 0.02316

g/m2 = µm x 7.067

PAINTING

GENERAL

General Requirements contain provisions and requirements essential to these Specifications; and apply to this section, whether or not referred to herein.

SCOPE OF WORK

This Section covers the surface preparation, coating materials and application of coatings systems required for the Works.

The work shall consist of furnishing of all labor, materials, equipment and other incidentals necessary for the supply of painting materials and the complete painting of surfaces as shown on the drawings in accordance with this Specification and as directed by the Engineer.

The term paint as hereinafter used includes latex, silver aluminum, oils, pigments, thinner and dryers.

All exposed metal surfaces, except metal surfaces embedded in concrete, shall be painted unless otherwise specified.

STANDARD

The following publications listed below, but referred to thereafter by basic designation only, forms a part of these Specifications to the extent indicated by the reference thereto:

Steel Structures Painting Council (SSPC) U.S. Specification JIS K 5628 Red-lead Zinc Chromate Anti-Corrosive Paint.

STORAGE AND DELIVERY

1. The Contractor shall deliver all material to the site in the original labeled sealed cans and containers, with labels intact and seal unbroken.
 - a. Seals shall remain unbroken until after inspection and acceptance of material by the Engineer.
 - b. The Contractor shall deliver materials in ample quantities sufficiently in advance of the need to avoid any delay or interruptions in the works.
2. Paint in thinner shall be stored in accordance with the approved manufacturer's instructions.
 - a. All regulations required for storage of paint shall be observed and all necessary safety signs required by governing codes shall be posted.
 - b. Any damage caused by failure to exercise proper precautions in paint storage shall be repaired.

MATERIAL REQUIREMENTS

PAINT

Paints for the protective coating system shall be the product of a manufacturer approved by the Engineer.

Paints for exterior finish must be with tile like durability and elegance, fast drying, solvent based acrylic, highly suitable for coastal or polluted areas with excellent anti-fungus properties and alkali resistance.

100% Acrylic, water based, quick-drying, easy to clean-up and environmentally friendly, resist dirt, stains, alkali, water, humidity, algae, mold and mildew growth and highly durable paint for interior finish.

An all-purpose synthetic quick dry paint for all types of wood and metal surfaces. It has high gloss, good color retention and outstanding durability.

For pipes, valves and equipment, galvanized and ungalvanized ferrous metal, use a 100% acrylic gloss paint, has excellent resistance to ultraviolet rays and resists chalking, cracking and color fading, dries fast and environmentally friendly.

SCHEDULE OF PAINTING

Paint manufacturers shall be BOYSEN, DAVIES or approved equal.

Architectural Items

a. Exterior Finishes

1. On Concrete Walls

Two Coats, Concrete Masonry Paint DV Megacryl, DV Liquid Tile,

DV Fusion, DV Elastogel

or approved equal

2. On Plaster

First Coat

Pigmented sealer Optimal Liquid Tile Clear,

Optimal Liquid Tile Pigmented or approved equal

Second Coat

Enamel undercoater DV 1350 Primer and Sealer or approved equal

Third Coat

Megacryl Latex (semi-gloss Igloss / flat) or approved equal

EXECUTION

SURFACE PREPARATION OF CONCRETE AND PLASTER

Concrete and cement plaster surfaces to be painted shall be prepared by removing efflorescence, dust, dirt, grease, oil, asphalt, tar, excessive mortar and mortar dropping and by roughening to remove glaze. A zinc sulfate solution shall be applied before prime coat.

MIXING AND THINNING

Mixing and thinning of paint shall be done in accordance with the approved manufacturer's printed instructions. The pot life of each paint as stated by the manufacturer shall not be exceeded.

WEATHER CONDITION

The paint shall not be applied when the relative humidity is above 85 percent. The paint shall not be applied in rain, wind, fog, dust or mist.

APPLICATION

Workmanship shall be first class in every respect. All work shall be done in a workmanship manner so that the finished surfaces shall be free from runs, chop, ridges, waves, laps and unnecessary brush marks. All coats shall be applied in such manner as to produce an even film of uniform thickness. Edges, corners, crevices, welds and rivets shall receive special attention to ensure that they receive an adequate thickness of paint.

All painting shall be done by thoroughly experienced workmen.

Safety regulations shall be adhered to at all times, including the wearing of respirators by persons engaged on assisting in spray painting. Adjacent areas and installation shall be protected by the use of cloths or other approved precautionary measures.

Plain enamel and varnish shall be applied carefully with good clean brushes or approved spraying equipment, except that the initial coat on any surface shall be applied with brush. Sufficient time shall be allowed between coats to assure thorough drying and each coat shall be in proper condition before receiving the next coat.

Sanding and dusting as required shall be performed between coats in varnishing work. Finish coat shall be smooth and free from runs, sags, and other defects. Exterior paint shall not be applied during rainy days.

All paint when applied shall provide a satisfactory film and smooth, even surface. Paint shall be thoroughly stirred and kept at a uniform consistency during application. Powdered metallic pigments added at the time of use shall be mixed by adding the powder in small increments to about one-third of the base paint or vehicle, with thorough mixing to obtain a smooth paste. The remainder of the base paint shall then be thoroughly stirred in.

Different brands of emulsion paints shall not be mixed prior to application of the materials.

Where necessary to suit conditions of surface temperature, weather and method of application, the package paint may be thinned immediately prior to application in accordance with the

approved manufacturer's directions, but not in excess of 125 cc of suitable thinner per liter (one pint per gallon). Before using, the paint shall be mixed to a uniform consistency and shall be stirred frequently during application.

Paints other than water-thinned paints shall be applied only to surfaces which are completely free of moisture as determined by sight or touch and only such combinations of humidity to be painted as will cause evaporation rather than condensation.

Surfaces which have been cleaned, pretreated and/or otherwise been prepared for painting shall be primed or painted with one coat of finish paint as soon as practicable after such preparation has been completed, but in any event prior to any deterioration of the prepared surfaces.

The first coat of paint on all exterior surfaces shall be applied by brush. Interior prime coats and all other subsequent coats on either exterior or interior surfaces may be applied by brush or spray. Whenever spraying is permitted all areas inaccessible to spray painting shall be coated by brushing or other suitable means. Brushes to be used for application of water-emulsions shall be soaked in water for a period of 2 hours prior to use.

All cloths and cotton waste which might constitute a fire hazard shall be placed in closed metal containers or destroyed at the end of each day.

Upon completion of the work, all staging, scaffolding, and containers shall be removed from the site or destroyed in a manner approved by the Engineer. Paint spots, or stains upon adjacent surfaces shall be removed and the entire job left clean and acceptable to the Engineer.

No smoking shall be permitted in the vicinity where painting is going on.

TOUCH-UP PAINTING

Touch-up painting shall be done with the same paint as used for the original coat. The resulting minimum dry film shall be the same as for the original coat.

Touch-up painting shall include cleaning and painting of field connections, welds and all damaged or defective paint and rusted areas.

During touch-up painting, only loose, cracked, brittle or non-adherent paint shall be removed during cleaning. All exposed edges shall be feathered. Touch-up painting shall be performed in a manner which will minimize damage to sound paint. Rust spots shall be thoroughly cleaned and edges of the existing paint shall be scraped back to sound material.

DRYING

1. No primer or paint shall be forced to be dried under conditions which will cause cracking, wrinkling, blistering, formation of pores which would detrimentally affect the condition of the paint.
2. No drier shall be added to the paint unless specified in the approved manufacturer's instructions.
3. Painted surfaces shall be protected from dust, dirt, and the elements of the weather until dry to the fullest extent practicable.

4. After drying, any areas of paint damaged from any cause shall be removed, the surface again prepared and then touched-up with the same paint and to the same thickness as the undamaged areas as specified in sub-section 4.14.3.7 above.

HANDLING

1. Precautions shall be taken to minimize damage to paint films resulting from stacking for drying.

2. Paint which is damaged in handling shall be scraped off and touched-up with the same paint and in the same thickness as was previously applied to the damaged area at Contractor's expense.

INSPECTION

1. All works and materials supplied under this Specification shall be subject to inspection by the Engineer.

2. The Contractor shall correct such works or replace such materials found defective under these Specifications at his own expense.

PROJECT BILLBOARD

SPECIFICATION

The Project Billboard shall be installed at location(s) designated by the Engineer.

The size and specifications of materials for the standard billboard shall be 4 ft. x 8 ft. (1,200mm x 2,400mm) using ½ inch (12mm) marine plywood or tarpaulin poster on 3/16 inch (5mm) marine plywood.

Project billboards shall not contain Name(s) and/or picture(s) of any personages.

SAFETY SIGNAGES AND BARRICADES

DESCRIPTION

This work includes the furnishing and installing of safety signages and barricades in accordance with the specifications as directed by the Engineer.

SPECIFICATION

The signages and barricades shall be installed at location(s) designated by the Engineer.

The sizes of the standard signages shall be 2-2/3 ft. x 4 ft (800mm x 1,200mm) for fixed type and 2 ft x 2-2/3 ft (600mm x 800mm) for mobile type. For barricade standard 2 ft x 2-2/3 ft (600mm x 800mm) shall be provided.

The materials to be used for signages and barricades are 1/2 inch (12mm) marine plywood or tarpaulin poster on 2" x 2" (50mm x 50mm) good lumber frame.

The printing or painting shall be the discretion of the Engineer.

Section VII. Drawings

Section VIII. Bill of Quantities

REPAIR OF DAMAGED CONCRETE PAVEMENT, COVERED WALKWAY, PASSENGER TERMINAL BUILDING, REPAINTING OF SECURITY FENCE & REPAIR OF SCOURED PORTION OF SEAWALL, PORT OF BULADO, GUIHULNGAN (NRP-NOS-01-22)					
BILL NO.	DESCRIPTION OF WORK	UNIT	QTY.	UNIT PRICE (Pesos)	AMOUNT (Pesos)
1.0	GENERAL EXPENSES				
1.01	Mobilization/Demobilization	L.S.	1.00		
1.02	Provide Safety Signage, Safety Devices & Health Program during execution of the project including Stringent Covid-19 protocols per Engineering Circular No. 01-2020, and Construction Guidelines for Project Implementation during the period of Public Health Emergency, approved by PDCB & CIAP (as indicated in the Bid Documents)	L.S.	1.00		
2.0	REPAIR OF DAMAGED CONCRETE PAVEMENT				
2.01	Demolition and disposal of damaged portion of PCCP	cu.m.	94.13		
2.02	Removal & disposal of unsuitable base materials	cu.m.	75.30		
2.03	Supply, spread & compact Item 200 Aggregate Base Course	cu.m.	75.30		
2.04	Supply & place 3500 psi concrete including dowels	cu.m.	94.13		
3.0	REPLACEMENT OF DAMAGED uPVC CORR. ROOFING SHEETS OF EXISTING COVERED WALKWAY AT OPERATIONAL AREA	L.M.	36.00		
4.0	REPAIR OF PASSENGER TERMINAL BUILDING				
4.01	Repair of Comfort Rooms of PTB				
4.01.1	Demolition of existing floor & wall tiles including concrete floor & wall affected by the new plumbing & water supply lines	L.S.	1.00		
4.01.2	Replacement of damaged plumbing and water supply lines	L.S.	1.00		
4.01.3	Construction of CHB partition wall including plastering	sq.m.	7.77		

4.01.4	Construction of RC Countertop and slop sink including installation of granite tiles	L.S.	1.00		
4.01.5	Replacement of floor and wall tiles	sq.m.	129.85		
4.01.6	Replacement of toilet fixtures including other accessories	L.S.	1.00		
4.01.7	Replacement of damaged ceiling system of C.R.	sq.m.	24.74		
4.01.8	Supply & install phenolic anti-bacterial waterproof toilet partition & doors including stainless hinges, lock indicators, bottom support, door knobs & coat hooks	L.S.	1.00		
4.01.9	Repair/Enhancement of electrical system of C.R.	L.S.	1.00		
4.02	Repainting of PTB				
4.02.1	Scraping of loose paints & rusted portion of roofing	L.S.	1.00		
4.02.2	Repainting of exterior/interior walling & ceiling roofing of PTB	L.S.	1.00		
4.03	Repair of Existing Canopy				
4.03.1	Demolition of existing concrete pavement affected by the concrete footing & pedestal of canopy	cu.m.	0.61		
4.03.2	Excavation for footing including disposal of excavated materials	cu.m.	1.82		
4.03.3	Supply & place 3500 psi concrete for footing & pedestal including plastering & plain cement finish	cu.m.	1.37		
4.03.4	Supply & install steel reinforcement for Item 4.03.3	kgs.	173.90		
4.03.5	Roof framing & roofing including G.I. pipe posts & built-up beam	L.S.	1.00		
4.03.6	Painting of canopy	L.S.	1.00		
5.0	REPAINTING OF SECURITY FENCE	L.S.	1.00		
6.0	REPAIR OF SCOURED PORTION OF SEAWALL AND RETAINING WALL INCLUDING CONCRETE APRON				
6.01	Demolition of affected concrete pavement & retaining wall & portion of seawall including removal of steel reinforcement of retaining wall	cu.m.	54.73		
6.02	Excavation and removal of fill materials & rock embankment	cu.m.	162.34		
6.03	Supply and place armour rocks (1,000 kgs. min.) to scoured portion of seawall and seawall protection	cu.m.	199.36		
6.04	Supply & place 3500 psi concrete for retaining wall	cu.m.	27.00		
6.05	Supply & install steel reinforcement for Item 6.04	kgs.	3,687.54		

6.06	Supply & place 50-100 kgs. Rocks for rock embankment	cu.m.	72.48		
6.07	Supply and place geotextile filter fabric	sq.m.	77.60		
6.08	Supply & place 50-100 kgs. rocks for rubble masonry of damaged seawall	cu.m.	14.06		
6.09	Replacement and compaction of fill materials	cu.m.	73.80		
6.10	Supply, place & compact item 200 aggregate base course	cu.m.	16.06		
6.11	Supply & place 3500 psi concrete for pavement including dowels	cu.m.	23.97		
6.12	Supply & place 3500 psi concrete for apron	cu.m.	5.53		
6.13	Supply & install steel reinforcement for Item 6.12	kgs.	226.81		
TOTAL AMOUNT ₱					

Section IX. Checklist of Technical and Financial Documents

Checklist of Technical and Financial Documents

I. TECHNICAL COMPONENT ENVELOPE

Class “A” Documents

Legal Documents

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

Technical Documents

- (b) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
- (c) Statement of the bidder’s Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules; **and**
- (d) Special PCAB License in case of Joint Ventures **and** registration for the type and cost of the contract to be bid; **and**
- (e) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission **or** original copy of Notarized Bid Securing Declaration; **and**
- (f) Project Requirements, which shall include the following:
 - a. Organizational chart for the contract to be bid;
 - b. List of contractor’s key personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data;
 - c. List of contractor’s major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**
- (g) Original duly signed Omnibus Sworn Statement (OSS) **and** if applicable, Original Notarized Secretary’s Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

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

Class “B” Documents

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

II. FINANCIAL COMPONENT ENVELOPE

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

Other documentary requirements under RA No. 9184

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



BIDDING FORMS

Bid Form

Date: _____

IB¹ N^o: _____

To: Philippine Ports Authority
PMO-Negros Oriental/Siquijor
Port Area, Looc, Dumaguete City

We, the undersigned, declare that:

(a) We have examined and have no reservation to the Bidding Documents, including Addenda, for the Contract **Repair of Damaged Concrete Pavement, Covered Walkway, Passenger Terminal Building, Repainting of Security Fence & Repair of Scoured Portion of Seawall, Port of Bulado, Guihulngan (NRP-NOS-01-22)**;

(b) We offer to execute the Works for this Contract in accordance with the Bid and Bid Data Sheet, General and Special Conditions of Contract accompanying this Bid;

The total price of our Bid, excluding any discounts offered below is: *[insert information]*;

The discounts offered and the methodology for their application are: *[insert information]*;

(c) Our Bid shall be valid for a period of **120 calendar** days from the date fixed for the Bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

(d) If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract;

(e) Our firm, including any subcontractors or suppliers for any part of the Contract, have nationalities from the following eligible countries: *[insert information]*;

(f) 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;

¹ If ADB, JICA and WB funded projects, use IFB.

- (g) Our firm, its affiliates or subsidiaries, including any subcontractors or suppliers for any part of the Contract, has not been declared ineligible by the Funding Source;
- (h) 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
- (i) We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.
- (j) **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 Repair of Damaged Concrete Pavement, Covered Walkway, Passenger Terminal Building, Repainting of Security Fence & Repair of Scoured Portion of Seawall, Port of Bulado, Guihulngan (NRP-NOS-01-22) of the Philippine Ports Authority, Port Management Office – Negros Oriental/Siquijor.**
- (k) **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: _____

In the capacity of: _____

Signed: _____

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

Date: _____

Form of Contract Agreement

THIS AGREEMENT, made this *[insert date]* day of *[insert month]*, *[insert year]* between *[name and address of PROCURING ENTITY]* (hereinafter called the “Entity”) and *[name and address of Contractor]* (hereinafter called the “Contractor”).

WHEREAS, the Entity is desirous that the Contractor execute *[name and identification number of contract]* (hereinafter called “the Works”) and the Entity has accepted the Bid for *[insert the amount in specified currency in numbers and words]* by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be attached, deemed to form, and be read and construed as integral part of this Agreement, to wit:
 - (a) General and Special Conditions of Contract;
 - (b) Drawings/Plans;
 - (c) Specifications;
 - (d) Invitation to Bid;
 - (e) Instructions to Bidders;
 - (f) Bid Data Sheet;
 - (g) Addenda and/or Supplemental/Bid Bulletins, if any;
 - (h) Bid form, including all the documents/statements contained in the Bidder’s bidding envelopes, as annexes, and all other documents submitted (e.g., Bidder’s response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity’s bid evaluation;
 - (i) Eligibility requirements, documents and/or statements;
 - (j) Performance Security;
 - (k) Notice of Award of Contract and the Bidder’s conforme thereto;
 - (l) Other contract documents that may be required by existing laws and/or the Entity.
3. In consideration of the payments to be made by the Entity to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Entity to

execute and complete the Works and remedy any defects therein in conformity with the provisions of this Contract in all respects.

4. The Entity hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects wherein, the Contract Price or such other sum as may become payable under the provisions of this Contract at the times and in the manner prescribed by this Contract.

IN WITNESS whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

Signed, sealed, delivered by _____ the _____ (for the Entity)

Signed, sealed, delivered by _____ the _____ (for the Contractor).

Binding Signature of Procuring Entity

Binding Signature of Contractor

[Addendum showing the corrections, if any, made during the Bid evaluation should be attached with this agreement]

Omnibus Sworn Statement

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]* *[insert "as shown in the attached duly notarized Special Power of Attorney" for the authorized representative]*;

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]*, accompanied by the duly notarized Special Power of Attorney, Board/Partnership Resolution, or Secretary's Certificate, 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;
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 following responsibilities as a Bidder:

a) Carefully examine all of the Bidding Documents;

b) Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract;

c) Made an estimate of the facilities available and needed for the contract to be bid, if any; and

d) Inquire or secure 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.

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

Bidder's Representative/Authorized Signatory

SUBSCRIBED AND SWORN to before me this ____ day of *[month]* *[year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her *[insert type of government identification card used]*, with his/her photograph and signature appearing thereon, with no. _____ and his/her Community Tax Certificate No. _____ issued on ____ at _____.

Witness my hand and seal this ____ day of *[month]* *[year]*.

NAME OF NOTARY PUBLIC

Serial No. of Commission _____

Notary Public for _____ until _____

Roll of Attorneys No. _____

PTR No. _____ *[date issued]*, *[place issued]*

IBP No. _____ *[date issued]*, *[place issued]*

Doc. No. _____

Page No. _____

Book No. _____

Series of _____

* This form will not apply for WB funded projects.

Bid-Securing Declaration

(REPUBLIC OF THE PHILIPPINES)

CITY OF _____) S.S.

X-----X

Invitation to Bid *[Insert reference 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 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 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 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;
 - c. I am/we are declared as 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'S AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]

Affiant

SUBSCRIBED AND SWORN to before me this __ day of [month] [year] at [place of execution], Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her [insert type of government identification card used], with his/her photograph and signature appearing thereon, with no. _____.

Witness my hand and seal this ____ day of [month] [year].

NAME OF NOTARY PUBLIC

Serial No. of Commission _____
Notary Public for _____ **until** _____
Roll of Attorneys No. _____
PTR No. __, [date issued], [place issued]
IBP No. __, [date issued], [place issued]
Doc. No. ____
Page No. ____
Book No. ____
Series of _____.

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

Name of the Contract or Title of the Project	Owner's Name and Address	Nature/ Scope of Work	Contractor's Role (in percentage)	Total Contract Value at			Estimated Time of Completion	% of Accomplishment		Contract Duration	
				Award	Project Completion Date	Escalated Value to Present Prices ^{4]}		Value of Outstanding Works	Planned	Actual	Start
1]		2]	3]			4]				5]	
A) Government Contracts i. On-going ii. Awarded but not yet started B) Private Contracts 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 wether as Sole Contractor, Sub-Contractor or Member in a Joint Venture/Consortium
- 4] Indicate the FOREX used if Contract 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 23.1.1.2 (3) of R.A. 9184
- 5] State Month and Year

Name of Firm/Applicant

Authorized Signing Official

Date

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

Name of the Contract or Title of the Project	Owner's Name and Address	Nature/ Scope of Work	Contractor's Role and Percentage of Participation	Total Contract Value at			Date of Award	Value of Outstanding Works	Contract Duration	
				Award	Completion	Escalated Value to Present Prices			Start	Completed

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 percent (50%) of the ABC to be bid.
2. This 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 Contractors Performance Evaluation System (CPES) Final Rating, which must be at least satisfactory.

Name of Firm/Applicant

Authorized Signing Official

Date

FINANCIAL DOCUMENTS FOR ELIGIBILITY CHECK

- A. Summary of the Applicant Firm’s/Contractor’s assets and liabilities on the basis of the attached income tax return and audited financial statement, stamped “RECEIVED” by the Bureau of Internal Revenue or BIR authorized collecting agent, for the immediately preceding year and a certified copy of Schedule of Fixed Assets particularly the list of construction equipment.

		Year 20__
1.	Total Assets	
2.	Current Assets	
3.	Total Liabilities	
4.	Current Liabilities	
5.	Total Net Worth (1-3)	
6.	Current Net Worth or Net Working Capital (2-4)	

- B. The Net Financial Contracting Capacity (NFCC) based on the above data is computed as follows:
 NFCC = [(current asset – current liabilities) x 15] minus value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started

NFCC = P _____

Attached are certified true copies of the audited financial statements stamped “RECEIVED” by the BIR or BIR authorized collecting agent for the immediately preceding calendar year.

Submitted by:

 Name of Firm / Contractor

 Signature of Authorized Representative

Date : _____

NOTE: If Partnership or Joint Venture, each Partner or Member Firm of Joint Venture shall submit the above requirements.

OUTLINE NARRATIVE DESCRIPTION OF CONSTRUCTION METHODS

1.0 INTRODUCTION

Refer to Bidding, etc.

2.0 BRIEF DESCRIPTION OF CONTRACT WORKS

State general features of contract works. Use tables as necessary.

3.0 CONSTRUCTION METHODS AND PROCEDURES

3.1 Methodology or General Approach

State general approach in construction in terms of use of equipment-intensive or labor-based methods, any special techniques, methods or procedures to ensure completion on time and quality of construction, financing the project, etc.

3.2 Program of Work

CPM, Progress Bar Schedule and Development Schedules submitted.

3.3 Financial Program

Cash flow schedules, provision for working capital, schedule of receipts, etc.

The narrative description of construction procedures / methods is required to be in the Technical Envelope of the bidder. The above is the recommended outline in the bidder's presentation of the documents.

Affidavit of Site Inspection

I, (Representative of the Bidder), of legal age, (civil status), Filipino and residing at (Address of the Representative), under oath, hereby depose and say:

1. That I am the (Position in the Bidder) of the (Name of the Bidder), with office at (Address of the Bidder);
2. That I have inspected the site for (Name of the Contract), located at (location of the Contract);
3. That I am making this statement as part of the requirement for the Technical Proposal of the (Name of the Bidder) for (Name of the Contract).

IN FAITH WHEREOF, I hereby affix my signature this _____ day of _____, 20__ at _____, Philippines.

AFFIANT

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

(Notary Public)

Until _____
PTR No. _____
Date _____
Place _____
TIN _____

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

By the act of submitting its bid, the bidder shall be deemed to have inspected the site and determined the general characteristics of the contract works and the conditions indicated above. (IRR-A Section 17.7.2) Thus, one of the requirements from the bidder to be included in its Technical Envelope is the affidavit of site inspection.

Name of the Procuring Entity
Contract Reference Number

Name of the Contract
Location of the Contract

Standard Form Number: SF-INFR-48
Revised on: August 11, 2004

Qualification of Key Personnel Proposed to be Assigned to the Contract

Business Name : _____
Business Address : _____

	Project Manager	Project Engineer	Materials Engineer	Safety & Health Officer	Foreman
1 Name					
2 Address					
3 Date of Birth					
4 Employed Since					
5 Experience					
6 Previous Employment					
7 Education					
8 PRC License					

Submitted By : _____
(Printed Name & Signature)
Designation : _____
Date : _____

Key Personnel's Certificate of Employment

(Issuance Date)

ATTY. SARAH R. MIJARES

Port Manager
Philippine Ports Authority
PMO – Negros Oriental/Siquijor
Port Area, Brgy. Looc
Dumaguete City
Negros Oriental

Dear Madam:

I am _____ a Licensed _____ Engineer with Professional License
(Name of Nominee)
No. _____ issued on _____ at _____.
(Date of Issuance) (Place of Issuance)

I hereby certify that _____ has engaged my services
(Name of Bidder)
as _____ for _____, if awarded to it.
(Designation) (Name of Contract)

As _____, I supervised the following completed projects similar to the
(Designation)
contract under bidding:

<u>NAME OF PROJECT</u>	<u>OWNER</u>	<u>COST</u>	<u>DATE COMPLETED</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

At present, I am supervising the following projects:

<u>NAME OF PROJECT</u>	<u>OWNER</u>	<u>COST</u>	<u>DATE COMPLETED</u>
_____	_____	_____	_____

In case of my separation for any reason whatsoever from the above-mentioned Contractor, I shall notify the _____ at least twenty one (21)
(Name of the Procuring Entity)
days before the effective date of my separation.

As _____, I know I will have to stay in the job site all the time to
(Designation)
supervise and manage the Contract works to the best of my ability, and aware that I am authorized to handle only one (1) contract at a time.

I do not allow the use of my name for the purpose of enabling the above-mentioned Contractor to qualify for the Contract without any firm commitment on my part to assume the post of _____ therefor, if the
(Designation)
contract is awarded to him since I understand that to do so will be a sufficient ground for my disqualification as _____ in any future
(Designation)
_____ bidding or employment with any Contractor doing business with the _____.
(Name of the Procuring Entity)

(Signature of Key Personnel)

DRY SEAL

Republic of the Philippines)
_____)S.S.

SUBSCRIBED AND SWORN TO before me this _____ day of _____
200_ affiant exhibiting to me his Residence Certificate No. _____ issued on
_____ at _____.

Notary Public
Until December 31, 20____

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

Name of the Procuring Entity
Contract Reference Number

Name of the Contract
Location of the Contract

Contractor's Letter-Certificate to Procuring Entity

(Date of Issuance)

ATTY. SARAH R. MIJARES
Port Manager
Philippine Ports Authority
PMO-Negros Oriental/Siquijor
Dumaguete City

Dear Madame:

Supplementing our Organizational Chart for the Contract, we have the honor to submit herewith, and to certify as true and correct, the following pertinent information:

1. That I/we have engaged the services of _____,
(Name of Employee)
to be the _____ of the _____,
(Designation) (Name of Contract)
who is a _____ with Professional License
(Profession)
Certificate No. _____ issued on _____ and who has
performed the duties in the construction of the Contracts enumerated in the
duly filled Form _____.
2. The said Engineer shall be designated by us as our _____
(Designation)
to personally perform the duties of the said position in the above-
mentioned Project, if and when the same is awarded in our favor.
3. That said Engineer shall employ the best care, skill and ability in performing
his duties in accordance with the Contract Agreement, Conditions of
Contract, Plans, Specifications, Special Provisions, and other provisions
embodied in the proposed contract.
4. That said Engineer shall be personally present at the jobsite to supervise
the phase of the construction work pertaining to this assignment as
_____, all the time.
(Designation)
5. That, in order to guarantee that said Engineer shall perform his duties
properly and be personally present in the Job Site, he is hereby required to

secure a certificate of appearance for the Procuring Entity Engineer at the end of every month.

That, in the event that I/we elect or choose to replace said _____
(Designation)

with another Engineer, the Procuring Entity will be accordingly notified by us in writing at least twenty one (21) days before making the replacement. We will submit to the Procuring Entity, for prior approval, the name of the proposed new _____, his

(Designation)
Qualifications experience, list of projects undertaken and other relevant information.

6. That any willful violation on my/our part of the herein conditions may prejudice my/our standing as a reliable contractor in future bidding of the Procuring Entity.

Very truly yours,

(Authorized Representative of Bidder)

CONCURRED IN:

(Name of Key Personnel)

(Address)

**KEY PERSONNEL
(FORMAT OF BIO-DATA)**

Give the detailed information of the following personnel who are scheduled to be assigned as full-time field staff for the project. Fill up a form for each person.

- Authorized Managing Officer / Representative
- Sustained Technical Employee

1. Name : _____
2. Date of Birth : _____
3. Nationality : _____
4. Education and Degrees : _____
5. Specialty : _____
6. Registration : _____
7. Length of Service with the Firm : _____ Year from ____ (months) ____ (year)
To ____ (months) ____ (year)
8. Years of Experience : _____
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 _____

10. Experience:

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

1. Name : _____
2. Name and Address of Owner : _____
3. Name and Address of the
Owner's Engineer : _____
(Consultant)

4. Indicate the Features of Project
(particulars of the project
components and any other particular
interest connected with the project): _____
5. Contract Amount Expressed in
Philippine Currency : _____
6. Position : _____
7. Structures for which the employee
was responsible : _____
8. Assignment Period : from _____ (months) _____ (years)
: to _____ (months) _____ (years)

Name and Signature of Employee

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)

(The Authorized Representative)

Name of the Procuring Entity
Contract Reference Number

Name of the Contract
Location of the Contract

Standard Form Number: SF-INFR-49
Revised on: August 11, 2004

List of Equipment, Owned or Leased and/or under Purchase Agreements, Pledged to the Proposed Contract

Business Name : _____
Business Address : _____

Description	Model/ Year	Capacity / Performance / Size	Plate No.	Motor No. / Body No.	Location	Condition	Proof of Ownership / Lessor or Vendor
A. Owned							
i.							
ii.							
iii.							
iv.							
B. Leased							
i.							
ii.							
iii.							
iv.							
C. Under Purchase Agreements							
i.							
ii.							
iii.							
iv.							

List of minimum equipment required for the project:

Submitted by : _____
Designation : _____
Date : _____
(Printed Name & Signature)

Statement of Availability of Key Personnel and Equipment

(Date)

ATTY. SARAH R. MIJARES

Port Manager
Philippine Ports Authority
PMO-Negros Oriental/Siquijor
Dumaguete City

Attention : The Chairperson
Bids and Awards Committee

Dear Sir/Madam:

In compliance with the requirements of the Philippine Ports Authority, Port Management Office of Negros Oriental/Siquijor, for the bidding of the (Name of the Contract), we certify that (Name of the Bidder) has in its employ key personnel, such as project managers, project engineers, materials engineers and foremen, who may be engaged for the construction of the said contract.

Further, we likewise certify the availability of equipment that (Name of the Bidder) owns, has under lease, and/or has under purchase agreements, that may be used for the construction contracts.

Very truly yours,

(Name of Representative)

(Position)

(Name of Bidder)

Bill of Quantities

Name of Project and Location					
ITEM NO.	DESCRIPTION	UNIT	QTY.	UNIT PRICE (Pesos)	AMOUNT (Pesos)
TOTAL AMOUNT ₱					

Submitted by:

Name of Firm / Contractor

Signature of Authorized Representative

Date : _____

Name of the Procuring Entity
Contract Reference Number

Name of the Contract
Location of the Contract

DETAILED COST ESTIMATES

DERIVATION OF UNIT COST	Date :
Item No. :	Unit Cost/Set :
Item of Work :	Assumed Quantity :
Work Description :	

MATERIALS				
NAME AND SPECIFICATIONS OF MATERIALS	QTY.	UNIT	UNIT PRICE	AMOUNT
a) Total for Materials				

EQUIPMENT EXPENSES				
NAME, CAPACITY AND HP RATING OF EQUIPMENT	NO. OF UNITS	NO. OF DAYS	RATE PER DAY/HOUR	AMOUNT
b) Total for Equipment				

LABOR				
DESIGNATION OF PERSONNEL	NO. OF MEN	NO. OF DAYS	DAILY RATE	AMOUNT
c) Total for Labor				

d) ESTIMATED DIRECT COST (EDC) = a + b + c				
e) MARK - UPS				
4.	Overhead, Contingencies, Miscellaneous (OCM) Expenses as ___% of (d)			
5.	Contractor's Profit as ___% of (d)			
Total for (e)				

f) VAT as 12% of (EDC + Mark-ups)				
g) TOTAL COST OF WORK ITEM				
h) UNIT COST (Total Cost/Assumed Quantity)				

Submitted by:
 Name of the Representative of the Bidder : _____ Date: _____
 Position : _____
 Name of the Bidder : _____

