

Procuring Entity: **PHILIPPINE NUCLEAR RESEARCH INSTITUTE**  
Name of the Project: **Establishment of Two –Storey Radiation Protection Services Facility**  
Location of the Project: **PNRI Compound, Commonwealth Avenue, Diliman, Quezon City**

**List of all Ongoing Government & Private Construction Contracts including contracts awarded but not yet started**

Business Name : \_\_\_\_\_  
Business Address : \_\_\_\_\_

Name of Contract/Location Project Cost	a. Owner Name b. Address c. Telephone Nos.	Nature of Work	Contractor's Role		a. Date Awarded b. Date Started c. Date of Completion	% of Accomplishment		Value of Outstanding Works
			Description	%		Planned	Actual	
<u>Government</u>								
<u>Private</u>								
						Total Cost		

Note: This statement shall be supported with:

- 1 Notice of Award and/or Contract
- 2 Notice to Proceed issued by the owner
- 3 Certificate of Accomplishments signed by the owner or Project Engineer

Submitted by : \_\_\_\_\_  
(Printed Name & Signature)

Designation : \_\_\_\_\_  
Date : \_\_\_\_\_

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**Statement of Single Largest Completed Contracts (SLCC) in the last five (5) years**

Business Name : \_\_\_\_\_  
 Business Address : \_\_\_\_\_

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

Note: This statement shall be supported with:

- 1 Contract
- 2 CPES rating sheets and/or Certificate of Completion
- 3 Certificate of Acceptance

Submitted by : \_\_\_\_\_  
 (Printed Name & Signature)  
 Designation : \_\_\_\_\_  
 Date : \_\_\_\_\_

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### **Qualification of Key Personnel Proposed to be Assigned to the Contract**

Business Name : \_\_\_\_\_

Business Address : \_\_\_\_\_

\_\_\_\_\_

	Project Manager / Engineer	Materials Engineer	Foreman	Construction Safety and Health Personnel	Other positions deemed required by the Applicant for this project
1 Name					
2 Address					
3 Date of Birth					
4 Employed Since					
5 Experience					
6 Previous Employment					
7 Education					
8 PRC License					

Minimum Requirements : Project Manager / Engineer

: Materials Engineer

: Foreman

Note : Attached individual resume and PRC License of the (professional) personnel.

Submitted by : \_\_\_\_\_

(Printed Name & Signature)

Designation : \_\_\_\_\_

Date : \_\_\_\_\_

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**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
<b>A. Owned</b>							
i.							
ii.							
iii.							
iv.							
v.							
<b>B. Leased</b>							
i.							
ii.							
iii.							
iv.							
v.							
<b>C. Under Purchase Agreements</b>							
i.							
ii.							
iii.							
iv.							
v.							

List of minimum equipment required for the project:

Submitted by : \_\_\_\_\_  
(Printed Name & Signature)  
Designation : \_\_\_\_\_  
Date : \_\_\_\_\_

## **TABLE OF CONTENTS**

<b>SECTION I. INVITATION TO BID .....</b>	<b>2</b>
<b>SECTION II. INSTRUCTIONS TO BIDDERS .....</b>	<b>4</b>
<b>SECTION III. BID DATA SHEET .....</b>	<b>33</b>
<b>SECTION IV. GENERAL CONDITIONS OF CONTRACT .....</b>	<b>37</b>
<b>SECTION V. SPECIAL CONDITIONS OF CONTRACT .....</b>	<b>68</b>
<b>SECTION VI. SPECIFICATIONS .....</b>	<b>70</b>
<b>SECTION VII. DRAWINGS .....</b>	<b>72</b>
<b>SECTION VIII. BILL OF QUANTITIES .....</b>	<b>109</b>
<b>SECTION IX. BIDDING FORMS .....</b>	<b>118</b>
<b>SECTION X. FOREIGN-ASSISTED PROJECTS .....</b>	<b>140</b>

# ***Section I. Invitation to Bid***

**Republic of the Philippines  
Department of Science and Technology  
PHILIPPINE NUCLEAR RESEARCH INSTITUTE**

## **INVITATION TO BID FOR THE ESTABLISHMENT OF TWO-STOREY RADIATION PROTECTION SERVICES FACILITY**

1. The Philippine Nuclear Research Institute, through the 2017 General Appropriations Act (GAA) intends to apply the total sum of ₱ 9,894,400.00 being the Approved Budget for the Contract (ABC) for the Establishment of Two-Storey Radiation Protection Services Facility. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The Philippine Nuclear Research Institute now invites bids for the Establishment of Two-Storey Radiation Protection Services Facility. Completion of the Works is Ninety (90) Government Working Days. Bidders should have a Single Largest Completed Contracts (SLCC), within five (5) years prior to the date of submission and receipt of bids, similar to the project to be bid, equivalent to at least fifty percent (50%) of the ABC. 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 9184 (RA 9184), otherwise known as the “Government Procurement Reform Act”.

Bidding is restricted to Filipino citizens/sole proprietorships, partnerships, or organizations with at least seventy five percent (75%) interest or outstanding capital stock belonging to citizens of the Philippines.

4. Interested bidders may obtain further information from the Philippine Nuclear Research Institute Bids and Awards Committee (BAC) and inspect the Bidding Documents at the address given below.
5. A complete set of Bidding Documents may be acquired by interested Bidders from **9:00 am to 5:00 pm on July 12 - 31, 2017**, Monday thru Friday, from the Philippine Nuclear Research Institute and upon payment of a nonrefundable fee, pursuant to the latest Guidelines issued by the GPPB, in the amount of Ten Thousand Pesos (Php10,000.00) to the PNRI Cash Section, FAD.

It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Philippine Nuclear Research Institute, provided that bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

6. The Philippine Nuclear Research Institute will hold a Pre-Bid Conference on ***July 20, 2017, Thursday, 10:00 am*** at the ***3rd Floor Conference Room, NART Building*** at PNRI Compound Commonwealth Avenue, Diliman, Quezon City, which shall be open to prospective bidders.
7. Bids must be delivered to the address below on ***August 01, 2017, Tuesday*** not later than ***10:00 am*** at the ***3rd Flr. Conference Room, NART Bldg., PNRI Compound***. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in ITB Clause 18.

Bid opening shall be on ***August 01, 2017, 10:00 am*** at ***3rd Flr. Conference Room, NART Bldg., PNRI Compound***. Bids will be opened in the presence of the bidders' representatives who choose to attend at the address below. Late bids shall not be accepted.

8. The Philippine Nuclear Research Institute reserves the right to accept or reject any bid, to annul the bidding process, and to reject all bids at any time prior to contract award, without thereby incurring any liability to the affected bidder or bidders.
9. For further information, please refer to:

PHILIPPINE NUCLEAR RESEARCH INSTITUTE  
**Chief Administrative Officer Graceta de Leon Cuevas, DPA**  
OIC-Office of the Deputy Director and Chairperson, PNRI-BAC  
Commonwealth Avenue, Diliman, Quezon City  
929-6011 to 19

**Administrative Assistant V Luzviminda B. Muyco**  
OIC, PPS and Head BAC Secretariat  
929-6011 to 19 Loc. 259/Fax. 920-8760  
lbmuyco@pnri.dost.gov.ph

## *Section II. Instructions to Bidders*

### **TABLE OF CONTENTS**

<b>A. GENERAL .....</b>	<b>6</b>
1. Scope of Bid.....	6
2. Source of Funds .....	6
3. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices .....	6
4. Conflict of Interest .....	7
5. Eligible Bidders.....	9
6. Bidder's Responsibilities .....	10
7. Origin of GOODS and Services .....	12
8. Subcontracts .....	13
<b>B. CONTENTS OF BIDDING DOCUMENTS .....</b>	<b>13</b>
9. Pre-Bid Conference .....	13
10. Clarification and Amendment of Bidding Documents.....	14
<b>C. PREPARATION OF BIDS .....</b>	<b>14</b>
11. Language of Bids .....	14
12. Documents Comprising the Bid: Eligibility and Technical Components .....	14
13. Documents Comprising the Bid: Financial Component .....	17
14. Alternative Bids .....	17
15. Bid Prices .....	18
16. Bid Currencies.....	18
17. Bid Validity .....	19
18. Bid Security.....	19
19. Format and Signing of Bids .....	21
20. Sealing and Marking of Bids.....	22
<b>D. SUBMISSION AND OPENING OF BIDS.....</b>	<b>23</b>
21. Deadline for Submission of Bids .....	23
22. Late Bids .....	23
23. Modification and Withdrawal of Bids .....	23
24. Opening and Preliminary Examination of Bids .....	24

<b>E. EVALUATION AND COMPARISON OF BIDS.....</b>	<b>25</b>
25. Process to be Confidential.....	25
26. Clarification of Bids .....	26
27. Detailed Evaluation and Comparison of Bids .....	26
28. Post Qualification.....	27
29. Reservation Clause.....	28
<b>F. AWARD OF CONTRACT .....</b>	<b>29</b>
30. Contract Award .....	29
31. Signing of the Contract .....	30
32. Performance Security .....	31
33. Notice to Proceed .....	32
34. Protest Mechanism.....	36

## **A. General**

### **1. Scope of Bid**

- 1.1. The Procuring Entity named in the **BDS**, invites bids for the construction of Works, as described in Section VI. Scope of Works and Specifications.
- 1.2. The name, identification, and number of lots specific to this bidding are provided in the **BDS**. The contracting strategy and basis of evaluation of lots is described in **ITB** Clause 27.
- 1.3. The successful Bidder will be expected to complete the Works by the intended completion date specified in **SCC** Clause 1.17.

### **2. Source of Funds**

The Procuring Entity has a budget or received funds from the Funding Source named in the **BDS**, and in the amount indicated in the **BDS**. It intends to apply part of the funds received for the Project, as defined in the **BDS**, to cover eligible payments under the Contract for the Works.

### **3. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices**

- 3.1. Unless otherwise specified in the **BDS**, the Procuring Entity, as well as bidders and contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. In pursuance of this policy, the Funding Source:
  - (a) defines, for purposes of this provision, the terms set forth below as follows:
    - (i) "corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves, others, or induce others to do so, by misusing the position in which they are placed, and includes the offering, giving, receiving, or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution; entering, on behalf of the Procuring Entity, into any contract or transaction manifestly and grossly disadvantageous to the same, whether or not the public officer profited or will profit thereby, and similar acts as provided in Republic Act 3019;
    - (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Procuring Entity, and includes collusive practices among Bidders (prior to or after Bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the Procuring Entity of the benefits of free and open competition;

- (iii) “collusive practices” means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Procuring Entity, designed to establish bid prices at artificial, non-competitive levels; and
  - (iv) “coercive practices” means harming or threatening to harm, directly or indirectly, persons, or their property to influence their participation in a procurement process, or affect the execution of a contract;
  - (v) “obstructive practice” is
    - (aa) deliberately destroying, falsifying, altering or concealing of evidence material to an administrative proceedings or investigation or making false statements to investigators in order to materially impede an administrative proceedings or investigation of the Procuring Entity or any foreign government/foreign or international financing institution into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the administrative proceedings or investigation or from pursuing such proceedings or investigation; or
    - (bb) acts intended to materially impede the exercise of the inspection and audit rights of the Procuring Entity or any foreign government/foreign or international financing institution herein.
  - (b) will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the Contract; and
  - (c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded Contract funded by the Funding Source if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing or, or in executing, a Contract funded by the Funding Source.
- 3.2. Further, the Procuring Entity will seek to impose the maximum civil, administrative, and/or criminal penalties available under the applicable laws on individuals and organizations deemed to be involved in any of the practices mentioned in **ITB** Clause 3.1(a).
- 3.3. Furthermore, the Funding Source and the Procuring Entity reserve the right to inspect and audit records and accounts of a contractor in the bidding for and performance of a contract themselves or through independent auditors as reflected in the **GCC** Clause 34.

#### 4. Conflict of Interest

- 4.1. All Bidders found to have conflicting interests shall be disqualified to participate in the procurement at hand, without prejudice to the imposition of appropriate administrative, civil, and criminal sanctions. A Bidder may be considered to have conflicting interests with another Bidder in any of the events described in paragraphs (a) through (c) and a general conflict of interest in any of the circumstances set out in paragraphs (d) through (g) below:
- (a) A Bidder has controlling shareholders in common with another Bidder;
  - (b) A Bidder receives or has received any direct or indirect subsidy from any other Bidder;
  - (c) A Bidder has the same legal representative as that of another Bidder for purposes of this Bid;
  - (d) A Bidder has a relationship, directly or through third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder or influence the decisions of the Procuring Entity regarding this bidding process;
  - (e) A Bidder submits more than one bid in this bidding process. However, this does not limit the participation of subcontractors in more than one bid;
  - (f) A Bidder who participated as a consultant in the preparation of the design or technical specifications of the goods and related services that are the subject of the bid; or
  - (g) A Bidder who lends, or temporarily seconds, its personnel to firms or organizations which are engaged in consulting services for the preparation related to procurement for or implementation of the project, if the personnel would be involved in any capacity on the same project.
- 4.2. In accordance with Section 47 of the IRR of RA 9184, all Bidding Documents shall be accompanied by a sworn affidavit of the Bidder that it is not related to the Head of the Procuring Entity (HoPE), members of the Bids and Awards Committee (BAC), members of the Technical Working Group (TWG), members of the BAC Secretariat, the head of the Project Management Office (PMO) or the end-user unit, and the project consultants, by consanguinity or affinity up to the third civil degree. On the part of the Bidder, this Clause shall apply to the following persons:
- (a) If the Bidder is an individual or a sole proprietorship, to the Bidder himself;
  - (b) If the Bidder is a partnership, to all its officers and members;
  - (c) If the Bidder is a corporation, to all its officers, directors, and controlling stockholders;

- (d) If the Bidder is a cooperative, to all its officers, directors, and controlling shareholders or members; and
- (e) If the Bidder is a joint venture (JV), the provisions of items (a), (b), (c) or (d) of this Clause shall correspondingly apply to each of the members of the said JV, as may be appropriate.

Relationship of the nature described above or failure to comply with this Clause will result in the automatic disqualification of a Bidder.

## 5. Eligible Bidders

5.1. Unless otherwise indicated in the **BDS**, the following persons shall be eligible to participate in this Bidding:

- (a) Duly licensed Filipino citizens/sole proprietorships;
- (b) Partnerships duly organized under the laws of the Philippines and of which at least seventy five percent (75%) of the interest belongs to citizens of the Philippines;
- (c) Corporations duly organized under the laws of the Philippines, and of which at least seventy five percent (75%) of the outstanding capital stock belongs to citizens of the Philippines;
- (d) Cooperatives duly organized under the laws of the Philippines.
- (e) Persons/entities forming themselves into a JV, i.e., a group of two (2) or more persons/entities that intend to be jointly and severally responsible or liable for a particular contract: Provided, however, that, in accordance with Letter of Instructions No. 630, Filipino ownership or interest of the joint venture concerned shall be at least seventy five percent (75%): Provided, further, that joint ventures in which Filipino ownership or interest is less than seventy five percent (75%) may be eligible where the structures to be built require the application of techniques and/or technologies which are not adequately possessed by a person/entity meeting the seventy five percent (75%) Filipino ownership requirement: Provided, finally, that in the latter case, Filipino ownership or interest shall not be less than twenty five percent (25%). For this purpose, Filipino ownership or interest shall be based on the contributions of each of the members of the joint venture as specified in their JVA.

5.2. The Procuring Entity may also invite foreign bidders when provided for under any Treaty or International or Executive Agreement as specified in the **BDS**.

5.3. Government owned or controlled corporations (GOCCs) may be eligible to participate only if they can establish that they (a) are legally and financially autonomous, (b) operate under commercial law, and (c) are not attached agencies of the Procuring Entity.

- 5.4. (a) 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 Philippine Statistics Authority (PSA) consumer price index. However, contractors under Small A and Small B categories without similar experience on the contract to be bid may be allowed to bid if the cost of such contract is not more than the Allowable Range of Contract Cost (ARCC) of their registration based on the guidelines as prescribed by the PCAB.
- (b) 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 **BDS**.

For this purpose, contracts similar to the Project shall be those described in the **BDS**.

- 5.5. The Bidder must submit a computation of its Net Financial Contracting Capacity (NFCC), which must be at least equal to the ABC to be bid, calculated as follows:

$$NFCC = [(Current\ assets\ minus\ current\ liabilities)\ (15)]\ minus\ the\ value\ of\ all\ outstanding\ or\ uncompleted\ portions\ of\ the\ projects\ under\ ongoing\ contracts,\ including\ awarded\ contracts\ yet\ to\ be\ started\ coinciding\ with\ the\ contract\ for\ this\ Project.$$

The values of the domestic bidder's current assets and current liabilities shall be based on the latest Audited Financial Statements (AFS) submitted to the BIR.

For purposes of computing the foreign bidders' NFCC, the value of the current assets and current liabilities shall be based on their audited financial statements prepared in accordance with international financial reporting standards.

## **6. Bidder Responsibilities**

- 6.1. The Bidder or its duly authorized representative shall submit a sworn statement in the form prescribed in Section IX. Bidding Forms as required in **ITB** Clause 12.1(b)(iii).
- 6.2. The Bidder is responsible for the following:
- (a) Having taken steps to carefully examine all of the Bidding Documents;
  - (b) Having acknowledged all conditions, local or otherwise, affecting the implementation of the contract;
  - (c) Having made an estimate of the facilities available and needed for the contract to be bid, if any;

- (d) Having complied with its responsibility to inquire or secure Supplemental/Bid Bulletin/s as provided under **ITB** Clause 10.4.
- (e) Ensuring that it is not “blacklisted” or barred from bidding by the GoP or any of its agencies, offices, corporations, or LGUs, including foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the GPPB;
- (f) Ensuring that 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;
- (g) Authorizing the HoPE or its duly authorized representative/s to verify all the documents submitted;
- (h) Ensuring that the signatory 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, accompanied by the duly notarized Special Power of Attorney, Board/Partnership Resolution, or Secretary’s Certificate, whichever is applicable;
- (i) Complying with the disclosure provision under Section 47 of RA 9184 and its IRR in relation to other provisions of RA 3019;
- (j) Complying with existing labor laws and standards, in the case of procurement of services. Moreover, bidder undertakes to:
  - (i) Ensure the entitlement of workers to wages, hours of work, safety and health and other prevailing conditions of work as established by national laws, rules and regulations; or collective bargaining agreement; or arbitration award, if and when applicable.

In case there is a finding by the Procuring Entity or the DOLE of underpayment or non-payment of workers’ wage and wage-related benefits, bidder agrees that the performance security or portion of the contract amount shall be withheld in favor of the complaining workers pursuant to appropriate provisions of Republic Act No. 9184 without prejudice to the institution of appropriate actions under the Labor Code, as amended, and other social legislations.

- (ii) Comply with occupational safety and health standards and to correct deficiencies, if any.

In case of imminent danger, injury or death of the worker, bidder undertakes to suspend contract implementation pending clearance to proceed from the DOLE Regional Office and to comply with Work Stoppage Order; and

- (iii) Inform the workers of their conditions of work, labor clauses under the contract specifying wages, hours of work and other benefits under prevailing national laws, rules and regulations; or collective bargaining agreement; or arbitration award, if and when applicable, through posting in two (2) conspicuous places in the establishment's premises; and
- (k) Ensuring that it 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;

Failure to observe any of the above responsibilities shall be at the risk of the Bidder concerned.

- 6.3. The Bidder, by the act of submitting its bid, shall be deemed to have inspected the site, determined the general characteristics of the contract works and the conditions for this Project and examine all instructions, forms, terms, and project requirements in the Bidding Documents.
- 6.4. It shall be the sole responsibility of the prospective bidder to determine and to satisfy itself by such means as it considers necessary or desirable as to all matters pertaining to this Project, including: (a) the location and the nature of the contract, project, or 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.
- 6.5. The Procuring Entity shall not assume any responsibility regarding erroneous interpretations or conclusions by the prospective or eligible bidder out of the data furnished by the procuring entity. However, the Procuring Entity shall ensure that all information in the Bidding Documents, including supplemental/bid bulletins issued are correct and consistent.
- 6.6. Before submitting their bids, the Bidders are deemed to have become familiar with all existing laws, decrees, ordinances, acts and regulations of the Philippines which may affect the contract in any way.
- 6.7. The Bidder shall bear all costs associated with the preparation and submission of his bid, and the Procuring Entity will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- 6.8. The Bidder should note that the Procuring Entity will accept bids only from those that have paid the applicable fee for the Bidding Documents at the office indicated in the Invitation to Bid.

## **7. Origin of Goods and Services**

There is no restriction on the origin of Goods, or Contracting of Works or Services other than those prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations.

## **8. Subcontracts**

- 8.1. Unless otherwise specified in the **BDS**, the Bidder may subcontract portions of the Works to an extent as may be approved by the Procuring Entity and stated in the **BDS**. However, subcontracting of any portion shall not relieve the Bidder from any liability or obligation that may arise from the contract for this Project.
- 8.2. Subcontractors must submit the documentary requirements under **ITB** Clause 12 and comply with the eligibility criteria specified in the **BDS**. In the event that any subcontractor is found by the Procuring Entity to be ineligible, the subcontracting of such portion of the Works shall be disallowed.
- 8.3. The Bidder may identify the subcontractor to whom a portion of the Works will be subcontracted at any stage of the bidding process or during contract implementation. If the Bidder opts to disclose the name of the subcontractor during bid submission, the Bidder shall include the required documents as part of the technical component of its bid.

### **B. Contents of Bidding Documents**

## **9. Pre-Bid Conference**

- 9.1. (a) If so specified in the **BDS**, a pre-bid conference shall be held at the venue and on the date indicated therein, to clarify and address the Bidders' questions on the technical and financial components of this Project.  
  
(b) The pre-bid conference shall be held at least twelve (12) calendar days before the deadline for the submission of and receipt of bids, but not earlier than seven (7) calendar days from the posting of the Invitation to Bid/Bidding Documents in the PhilGEPS website. If the Procuring Entity determines that, by reason of the method, nature, or complexity of the contract to be bid, or when international participation will be more advantageous to the GoP, a longer period for the preparation of bids is necessary, the pre-bid conference shall be held at least thirty (30) calendar days before the deadline for the submission and receipt of bids, as specified in the **BDS**.
- 9.2. Bidders are encouraged to attend the pre-bid conference to ensure that they fully understand the Procuring Entity's requirements. Non-attendance of the Bidder will in no way prejudice its bid; however, the Bidder is expected to know the changes and/or amendments to the Bidding Documents as recorded in the minutes of the pre-bid conference and the Supplemental/Bid Bulletin. The minutes of the pre-bid conference shall be recorded and prepared not later than five (5) calendar days after the pre-bid conference. The minutes shall be made available to prospective bidders not later than five (5) days upon written request.

- 9.3. Decisions of the BAC amending any provision of the bidding documents shall be issued in writing through a Supplemental/Bid Bulletin at least seven (7) calendar days before the deadline for the submission and receipt of bids.

## **10. Clarification and Amendment of Bidding Documents**

- 10.1. Prospective bidders may request for clarification(s) on and/or interpretation of any part of the Bidding Documents. Such a request must be in writing and submitted to the Procuring Entity at the address indicated in the **BDS** at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.
- 10.2. The BAC shall respond to the said request by issuing a Supplemental/Bid Bulletin, to be made available to all those who have properly secured the Bidding Documents, at least seven (7) calendar days before the deadline for the submission and receipt of Bids.
- 10.3. Supplemental/Bid Bulletins may also be issued upon the Procuring Entity's initiative for purposes of clarifying or modifying any provision of the Bidding Documents not later than seven (7) calendar days before the deadline for the submission and receipt of Bids. Any modification to the Bidding Documents shall be identified as an amendment.
- 10.4. Any Supplemental/Bid Bulletin issued by the BAC shall also be posted in the PhilGEPS and the website of the Procuring Entity concerned, if available, and at any conspicuous place in the premises of the Procuring Entity concerned. It shall be the responsibility of all Bidders who have properly secured the Bidding Documents to inquire and secure Supplemental/Bid Bulletins that may be issued by the BAC. However, Bidders who have submitted bids before the issuance of the Supplemental/Bid Bulletin must be informed and allowed to modify or withdraw their bids in accordance with **ITB** Clause 23.

## **C. Preparation of Bids**

### **11. Language of Bids**

The eligibility requirements or statements, the bids, and all other documents to be submitted to the BAC must be in English. If the eligibility requirements or statements, the bids, and all other documents submitted to the BAC are in foreign language other than English, it must be accompanied by a translation of the documents in English. The documents shall be translated by the relevant foreign government agency, the foreign government agency authorized to translate documents, or a registered translator in the foreign bidder's country; and 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. The English translation shall govern, for purposes of interpretation of the bid.

### **12. Documents Comprising the Bid: Eligibility and Technical Components**

12.1. Unless otherwise indicated in the **BDS**, the first envelope shall contain the following eligibility and technical documents:

(a) Eligibility Documents –

Class “A” Documents

- (i) PhilGEPS Certificate of Registration and Membership in accordance with Section 8.5.2 of the IRR, except for foreign bidders participating in the procurement by a Philippine Foreign Service Office or Post, which shall submit their eligibility documents under Section 23.1 of the IRR, provided, that the winning bidder shall register with the PhilGEPS in accordance with Section 37.1.4 of the IRR;
- (ii) Statement 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

Statement of the Bidder’s SLCC similar to the contract to be bid, in accordance with ITB Clause 5.4.

The two statements required shall indicate for each contract the following:

- (ii.1) name of the contract;
- (ii.2) date of the contract;
- (ii.3) contract duration;
- (ii.4) owner’s name and address;
- (ii.5) nature of work;
- (ii.6) contractor’s role (whether sole contractor, subcontractor, or partner in a JV) and percentage of participation;
- (ii.7) total contract value at award;
- (ii.8) date of completion or estimated completion time;
- (ii.9) total contract value at completion, if applicable;
- (ii.10) percentages of planned and actual accomplishments, if applicable; and
- (ii.11) value of outstanding works, if applicable.

The statement of the Bidder's SLCC shall be supported by the Notice of Award and/or Notice to Proceed, Project Owner's Certificate of Final Acceptance issued by the Owner other than the Contractor or the Constructors Performance Evaluation System (CPES) Final Rating, which must be at least satisfactory. In case of contracts with the private sector, an equivalent document shall be submitted;

- (iii) Unless otherwise provided in the **BDS**, a valid special PCAB License in case of joint ventures, and registration for the type and cost of the contract for this Project; and
- (iv) NFCC computation in accordance with ITB Clause 5.5.

Class "B" Documents

- (v) If applicable, Joint Venture Agreement (JVA) in accordance with RA 4566.

(b) Technical Documents –

- (i) Bid security in accordance with **ITB** Clause 18. If the Bidder opts to submit the bid security in the form of:
  - (i.1) a bank draft/guarantee or an irrevocable letter of credit issued by a foreign bank, it shall be accompanied by a confirmation from a Universal or Commercial Bank; or
  - (i.2) a surety bond accompanied by a certification coming from the Insurance Commission that the surety or insurance company is authorized to issue such instruments.
- (ii) Project Requirements, which shall include the following:
  - (ii.1) Organizational chart for the contract to be bid;
  - (ii.2) List of contractor's 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. These personnel must meet the required minimum years of experience set in the **BDS**; and
  - (ii.3) 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, which must meet the minimum requirements for the contract set in the **BDS**; and

- (iii) Sworn statement in accordance with Section 25.3 of the IRR of RA 9184 and using the form prescribed in Section IX. Bidding Forms.

### 13. Documents Comprising the Bid: Financial Component

- 13.1. Unless otherwise stated in the **BDS**, the financial component of the bid shall contain the following:
  - (a) Financial Bid Form, which includes bid prices and the bill of quantities, in accordance with **ITB** Clauses **Error! Reference source not found.** and **Error! Reference source not found.**; and
  - (b) Any other document related to the financial component of the bid as stated in the **BDS**.
- 13.2. (a) Unless otherwise stated in the **BDS**, all Bids that exceed the ABC shall not be accepted.
- (b) Unless otherwise indicated in the **BDS**, for foreign-funded procurement, a ceiling may be applied to bid prices provided the following conditions are met:
  - (i) Bidding Documents are obtainable free of charge on a freely accessible website. If payment of Bidding Documents is required by the procuring entity, payment could be made upon the submission of bids.
  - (ii) The procuring entity has procedures in place to ensure that the ABC is based on recent estimates made by the engineer or the responsible unit of the procuring entity and that the estimates are based on adequate detailed engineering (in the case of infrastructure projects) and reflect the quality, supervision and risk and inflationary factors, as well as prevailing market prices, associated with the types of works or goods to be procured.
  - (iii) The procuring entity has trained cost estimators on estimating prices and analyzing bid variances. In the case of infrastructure projects, the procuring entity must also have trained quantity surveyors.
  - (iv) The procuring entity has established a system to monitor and report bid prices relative to ABC and engineer's/procuring entity's estimate.
  - (v) The procuring entity has established a monitoring and evaluation system for contract implementation to provide a feedback on actual total costs of goods and works.

### 14. Alternative Bids

- 14.1. Alternative Bids shall be rejected. For this purpose, alternative bid is an offer made by a Bidder in addition or as a substitute to its original bid which may be included as part of its original bid or submitted separately therewith for

purposes of bidding. A bid with options is considered an alternative bid regardless of whether said bid proposal is contained in a single envelope or submitted in two (2) or more separate bid envelopes.

- 14.2. 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.
- 14.3. Each Bidder shall submit only one Bid, either individually or as a partner in a JV. A Bidder who submits or participates in more than one bid (other than as a subcontractor if a subcontractor is permitted to participate in more than one bid) will cause all the proposals with the Bidder's participation to be disqualified. This shall be without prejudice to any applicable criminal, civil and administrative penalties that may be imposed upon the persons and entities concerned.

## **15. Bid Prices**

- 15.1. The contract shall be for the whole Works, as described in **ITB** Clause 1.1, based on the priced Bill of Quantities submitted by the Bidder.
- 15.2. The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Bids not addressing or providing all of the required items in the Bidding Documents including, where applicable, Bill of Quantities, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the Government, except those required by law or regulations to be provided for.
- 15.3. All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, prior to the deadline for submission of bids, shall be included in the rates, prices, and total bid price submitted by the Bidder.
- 15.4. All bid prices for the given scope of work in the contract as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as specified in GCC Clause 48. Upon the recommendation of the Procuring Entity, price escalation may be allowed in extraordinary circumstances as may be determined by the National Economic and Development Authority in accordance with the Civil Code of the Philippines, and upon approval by the GPPB. Furthermore, in cases where the cost of the awarded contract is affected by any applicable new laws, ordinances, regulations, or other acts of the GoP, promulgated after the date of bid opening, a contract price adjustment shall be made or appropriate relief shall be applied on a no loss-no gain basis.

## **16. Bid Currencies**

- 16.1. All bid prices shall be quoted in Philippine Pesos unless otherwise provided in the **BDS**. However, for purposes of bid evaluation, bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate prevailing on the day of the Bid Opening.
- 16.2. If so allowed in accordance with **ITB** Clause 16.1, the Procuring Entity for purposes of bid evaluation and comparing the bid prices will convert the amounts in various currencies in which the bid price is expressed to Philippine Pesos at the exchange rate as published in the *Bangko Sentral ng Pilipinas* (BSP) reference rate bulletin on the day of the bid opening.
- 16.3. Unless otherwise specified in the **BDS**, payment of the contract price shall be made in Philippine Pesos.

## 17. Bid Validity

- 17.1. Bids shall remain valid for the period specified in the **BDS** which shall not exceed one hundred twenty (120) calendar days from the date of the opening of bids.
- 17.2. In exceptional circumstances, prior to the expiration of the bid validity period, the Procuring Entity may request Bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. The bid security described in **ITB** Clause 18 should also be extended corresponding to the extension of the bid validity period at the least. A Bidder may refuse the request without forfeiting its bid security, but his bid shall no longer be considered for further evaluation and award. A Bidder granting the request shall not be required or permitted to modify its bid.

## 18. Bid Security

- 18.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in an amount stated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the following schedule:

Form of Bid Security	Amount of Bid Security (Not less than the Percentage of the ABC)
(a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank.  <i>For biddings conducted by LGUs, the cashier's/manager's check may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i>	Two percent (2%)
(b) Bank draft/guarantee or irrevocable letter of credit issued	

<p>by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.</p> <p><i>For biddings conducted by LGUs, the Bank Draft/ Guarantee, or irrevocable letter of credit may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i></p>	
<p>(c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security; and/or</p>	<p>Five percent (5%)</p>

The Bid Securing Declaration mentioned above is an undertaking which states, among others, that the Bidder shall enter into contract with the procuring entity and furnish the performance security required under ITB Clause 32.2, within ten (10) calendar days from receipt of the Notice of Award, and commits to pay the corresponding amount as fine, and be suspended for a period of time from being qualified to participate in any government procurement activity in the event it violates any of the conditions stated therein as provided in the guidelines issued by the GPPB.

- 18.2. The bid security should be valid for the period specified in the **BDS**. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.
- 18.3. No bid securities shall be returned to Bidders after the opening of bids and before contract signing, except to those that failed or declared as post-disqualified, upon submission of a written waiver of their right to file a request for reconsideration and/or protest, or lapse of the reglementary period without having filed a request for reconsideration or protest. Without prejudice on its forfeiture, Bid Securities shall be returned only after the Bidder with the Lowest Calculated Responsive Bid (LCRB) has signed the contract and furnished the Performance Security, but in no case later than the expiration of the Bid Security validity period indicated in **ITB** Clause 18.2.
- 18.4. Upon signing and execution of the contract, pursuant to **ITB** Clause 31, and the posting of the performance security, pursuant to **ITB** Clause 32, the successful Bidder's Bid Security will be discharged, but in no case later than the Bid Security validity period as indicated in **ITB** Clause 18.2.
- 18.5. The bid security may be forfeited:

- (a) if a Bidder:
  - (i) withdraws its bid during the period of bid validity specified in **ITB** Clause 17;
  - (ii) does not accept the correction of errors pursuant to **ITB** Clause 27.3(b);
  - (iii) has a finding against the veracity of the required documents submitted in accordance with ITB Clause 28.2;
  - (iv) submission of eligibility requirements containing false information or falsified documents;
  - (v) submission of bids that contain false information or falsified documents, or the concealment of such information in the bids in order to influence the outcome of eligibility screening or any other stage of the public bidding;
  - (vi) allowing the use of one's name, or using the name of another for purposes of public bidding;
  - (vii) withdrawal of a bid, or refusal to accept an award, or enter into contract with the Government without justifiable cause, after the Bidder had been adjudged as having submitted the LCRB;
  - (viii) refusal or failure to post the required performance security within the prescribed time;
  - (ix) refusal to clarify or validate in writing its bid during post-qualification within a period of seven (7) calendar days from receipt of the request for clarification;
  - (x) any documented attempt by a Bidder to unduly influence the outcome of the bidding in his favor;
  - (xi) failure of the potential joint venture partners to enter into the joint venture after the bid is declared successful; or
  - (xii) all other acts that tend to defeat the purpose of the competitive bidding, such as habitually withdrawing from bidding, submitting late Bids or patently insufficient bid, for at least three (3) times within a year, except for valid reasons.
- (b) if the successful Bidder:
  - (i) fails to sign the contract in accordance with **ITB** Clause 31;
  - (ii) fails to furnish performance security in accordance with **ITB** Clause 32.

## 19. Format and Signing of Bids

- 19.1 Bidders shall submit their bids through their duly authorized representative using the appropriate forms provided in Section IX. Bidding Forms on or before the deadline specified in the **ITB** Clause 21 in two (2) separate sealed bid envelopes, and which shall be submitted simultaneously. The first shall contain the technical component of the bid, including the eligibility requirements under **ITB** Clause 12.1, and the second shall contain the financial component of the bid. This shall also be observed for each lot in the case of lot procurement.
- 19.2 Forms as mentioned in **ITB** Clause 19.1 must be completed without any alterations to their format, and no substitute form shall be accepted. All blank spaces shall be filled in with the information requested.
- 19.3 The Bidder shall prepare and submit an original of the first and second envelopes as described in **ITB** Clauses 12 and 13. In addition, the Bidder shall submit copies of the first and second envelopes. In the event of any discrepancy between the original and the copies, the original shall prevail.
- 19.4 Each and every page of the Bid Form, including the Bill of Quantities, under Section IX hereof, shall be signed by the duly authorized representative/s of the Bidder. Failure to do so shall be a ground for the rejection of the bid.
- 19.5 Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the duly authorized representative/s of the Bidder.

## **20. Sealing and Marking of Bids**

- 20.1. Bidders shall enclose their original eligibility and technical documents described in **ITB** Clause 12, in one sealed envelope marked “ORIGINAL - TECHNICAL COMPONENT,” and the original of their financial component in another sealed envelope marked “ORIGINAL - FINANCIAL COMPONENT,” sealing them all in an outer envelope marked “ORIGINAL BID.”
- 20.2. Each copy of the first and second envelopes shall be similarly sealed duly marking the inner envelopes as “COPY NO. \_\_\_\_ - TECHNICAL COMPONENT” and “COPY NO. \_\_\_\_ – FINANCIAL COMPONENT” and the outer envelope as “COPY NO. \_\_\_\_,” respectively. These envelopes containing the original and the copies shall then be enclosed in one single envelope.
- 20.3. The original and the number of copies of the bid as indicated in the **BDS** shall be typed or written in ink and shall be signed by the Bidder or its duly authorized representative/s.
- 20.4. All envelopes shall:
- (a) contain the name of the contract to be bid in capital letters;
  - (b) bear the name and address of the Bidder in capital letters;

- (c) be addressed to the Procuring Entity's BAC in accordance with **ITB** Clause 20.1;
  - (d) bear the specific identification of this bidding process indicated in the **ITB** Clause 1.2; and
  - (e) bear a warning "DO NOT OPEN BEFORE..." the date and time for the opening of bids, in accordance with **ITB** Clause 21.
- 20.5. Bid envelopes that are not properly sealed and marked, as required in the bidding documents, shall not be rejected, but the Bidder or its duly authorized representative shall acknowledge such condition of the bid as submitted. The BAC or the Procuring Entity shall assume no responsibility for the misplacement of the contents of the improperly sealed or marked bid, or for its premature opening.

## **D. Submission and Opening of Bids**

### **21. Deadline for Submission of Bids**

Bids must be received by the Procuring Entity's BAC at the address and on or before the date and time indicated in the **BDS**.

### **22. Late Bids**

Any bid submitted after the deadline for submission and receipt of bids prescribed by the Procuring Entity, pursuant to **ITB** Clause 21, shall be declared "Late" and shall not be accepted by the Procuring Entity. The BAC shall record in the minutes of Bid Submission and Opening, the Bidder's name, its representative and the time the late bid was submitted.

### **23. Modification and Withdrawal of Bids**

23.1. The Bidder may modify its bid after it has been submitted; provided that the modification is received by the Procuring Entity prior to the deadline prescribed for submission and receipt of bids. The Bidder shall not be allowed to retrieve its original bid, but shall be allowed to submit another bid equally sealed and properly identified in accordance with Clause 20, linked to its original bid marked as "TECHNICAL MODIFICATION" or "FINANCIAL MODIFICATION" and stamped "received" by the BAC. Bid modifications received after the applicable deadline shall not be considered and shall be returned to the Bidder unopened.

23.2. A Bidder may, through a Letter of Withdrawal, withdraw its bid after it has been submitted, for valid and justifiable reason; provided that the Letter of Withdrawal is received by the Procuring Entity prior to the deadline prescribed for submission and receipt of bids. The Letter of Withdrawal must be executed by the authorized representative of the Bidder identified in the Omnibus Sworn Statement, a copy of which should be attached to the letter.

- 23.3. Bids requested to be withdrawn in accordance with **ITB** Clause 23.1 shall be returned unopened to the Bidders. A Bidder, who has acquired the bidding documents may also express its intention not to participate in the bidding through a letter which should reach and be stamped by the BAC before the deadline for submission and receipt of bids. A Bidder that withdraws its bid shall not be permitted to submit another bid, directly or indirectly, for the same contract.
- 23.4. No bid may be modified after the deadline for submission of bids. No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Financial Bid Form. Withdrawal of a bid during this interval shall result in the forfeiture of the Bidder's bid security, pursuant to **ITB** Clause 18.5, and the imposition of administrative, civil, and criminal sanctions as prescribed by RA 9184 and its IRR.

## **24. Opening and Preliminary Examination of Bids**

- 24.1. The BAC shall open the Bids in public, immediately after the deadline for the submission and receipt of bids in public, as specified in the **BDS**. In case the Bids cannot be opened as scheduled due to justifiable reasons, the BAC shall take custody of the Bids submitted and reschedule the opening of Bids on the next working day or at the soonest possible time through the issuance of a Notice of Postponement to be posted in the PhilGEPS website and the website of the Procuring Entity concerned.
- 24.2. Unless otherwise specified in the BDS, the BAC shall open the first bid envelopes and determine each Bidder's compliance with the documents prescribed in ITB Clause 12, using a non-discretionary "pass/fail" criterion. If a Bidder submits the required document, it shall be rated "passed" for that particular requirement. In this regard, bids that fail to include any requirement or are incomplete or patently insufficient shall be considered as "failed". Otherwise, the BAC shall rate the said first bid envelope as "passed".
- 24.3. Unless otherwise specified in the **BDS**, immediately after determining compliance with the requirements in the first envelope, the BAC shall forthwith open the second bid envelope of each remaining eligible Bidder whose first bid envelope was rated "passed." The second envelope of each complying Bidder shall be opened within the same day. In case one or more of the requirements in the second envelope of a particular bid is missing, incomplete or patently insufficient, and/or if the submitted total bid price exceeds the ABC unless otherwise provided in **ITB** Clause 13.2, the BAC shall rate the bid concerned as "failed." Only bids that are determined to contain all the bid requirements for both components shall be rated "passed" and shall immediately be considered for evaluation and comparison.
- 24.4. Letters of Withdrawal shall be read out and recorded during bid opening, and the envelope containing the corresponding withdrawn bid shall be returned to the Bidder unopened.

- 24.5. All members of the BAC who are present during bid opening shall initial every page of the original copies of all bids received and opened.
- 24.6. In the case of an eligible foreign bidder as described in **ITB** Clause 5, the following Class “A” Documents may be substituted with the appropriate equivalent documents, if any, issued by the country of the foreign bidder concerned, which shall likewise be uploaded and maintained in the PhilGEPS in accordance with Section 8.5.2 of the IRR.:
- a) Registration certificate from the Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or CDA for cooperatives;
  - b) Mayor’s/Business permit issued by the local government where the principal place of business of the Bidder is located; and
  - c) Audited Financial Statements showing, among others, the prospective Bidder’s total and current assets and liabilities stamped “received” by the Bureau of Internal Revenue or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two years from the date of bid submission.
- 24.7. Each partner of a joint venture agreement shall likewise submit the document required in **ITB** Clause 12.1(a)(i). Submission of documents required under **ITB** Clauses 12.1(a)(ii) to 12.1(a)(iv) by any of the joint venture partners constitutes compliance.
- 24.8. The Procuring Entity shall prepare the minutes of the proceedings of the bid opening that shall include, as a minimum: (a) names of Bidders, their bid price (per lot, if applicable, and/or including discount, if any), bid security, findings of preliminary examination, and whether there is a withdrawal or modification; and (b) attendance sheet. The BAC members shall sign the abstract of bids as read.
- 24.8. The Bidders or their duly authorized representatives may attend the opening of bids. The BAC shall ensure the integrity, security, and confidentiality of all submitted bids. The Abstract of Bids as read and the minutes of the Bid Opening shall be made available to the public upon written request and payment of a specified fee to recover cost of materials.
- 24.9 To ensure transparency and accurate representation of the bid submission, the BAC Secretariat shall notify in writing all Bidders whose bids it has received through its PhilGEPS-registered physical address or official e-mail address. The notice shall be issued within seven (7) calendar days from the date of the bid opening.

## **E. Evaluation and Comparison of Bids**

### **25. Process to be Confidential**

- 25.1. Members of the BAC, including its staff and personnel, as well as its Secretariat and TWG, are prohibited from making or accepting any kind of communication with any Bidder regarding the evaluation of their bids until the issuance of the Notice of Award, unless otherwise allowed in the case of **ITB** Clause 26.
- 25.2. Any effort by a Bidder to influence the Procuring Entity in the Procuring Entity's decision in respect of bid evaluation, bid comparison or contract award will result in the rejection of the Bidder's bid.

## **26. Clarification of Bids**

To assist in the evaluation, comparison and post-qualification of the bids, the Procuring Entity may ask in writing any Bidder for a clarification of its bid. All responses to requests for clarification shall be in writing. Any clarification submitted by a Bidder in respect to its bid and that is not in response to a request by the Procuring Entity shall not be considered

## **27. Detailed Evaluation and Comparison of Bids**

- 27.1. The Procuring Entity will undertake the detailed evaluation and comparison of Bids which have passed the opening and preliminary examination of Bids, pursuant to **ITB** Clause 24, in order to determine the Lowest Calculated Bid.
- 27.2. The Lowest Calculated Bid shall be determined in two steps:
- (a) The detailed evaluation of the financial component of the bids, to establish the correct calculated prices of the bids; and
  - (b) The ranking of the total bid prices as so calculated from the lowest to highest. The bid with the lowest price shall be identified as the Lowest Calculated Bid.
- 27.3. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all bids rated "passed," using non-discretionary "pass/fail" criterion. The BAC shall consider the following in the evaluation of bids:
- (a) Completeness of the bid. Unless the **BDS** allows partial bids, bids not addressing or providing all of the required items in the Schedule of Requirements including, where applicable, bill of quantities, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the Procuring Entity, except those required by law or regulations to be provided for; and
  - (b) Arithmetical corrections. Consider computational errors and omissions to enable proper comparison of all eligible bids. It may also consider bid modifications. Any adjustment shall be calculated in monetary terms to determine the calculated prices.

- 27.4. Based on the detailed evaluation of bids, those that comply with the above-mentioned requirements shall be ranked in the ascending order of their total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, to identify the Lowest Calculated Bid. Total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, which exceed the ABC shall not be considered, unless otherwise indicated in the **BDS**.
- 27.5. The Procuring Entity's evaluation of bids shall be based on the bid price quoted in the Bid Form, which includes the Bill of Quantities.
- 27.6. Bids shall be evaluated on an equal footing to ensure fair competition. For this purpose, all Bidders shall be required to include in their bids the cost of all taxes, such as, but not limited to, value added tax (VAT), income tax, local taxes, and other fiscal levies and duties which shall be itemized in the bid form and reflected in the detailed estimates. Such bids, including said taxes, shall be the basis for bid evaluation and comparison.
- 27.7. If so indicated pursuant to **ITB** Clause 1.2. Bids are being invited for individual lots or for any combination thereof, provided that all Bids and combinations of Bids 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 prices quoted shall correspond to all of the requirements specified for each lot. Bid Security as required by **ITB** Clause 18 shall be submitted for each contract (lot) separately. The basis for evaluation of lots is specified in **BDS** Clause 27.3.

## **28. Post Qualification**

- 28.1. The BAC shall determine to its satisfaction whether the Bidder that is evaluated as having submitted the Lowest Calculated Bid complies with and is responsive to all the requirements and conditions specified in **ITB** Clauses 5, 12, and 13.
- 28.2. 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**.  
  
Failure to submit any of the post-qualification requirements on time, or a finding against the veracity thereof, shall disqualify the Bidder for award. Provided in the event that a finding against the veracity of any of the documents submitted is made, it shall cause the forfeiture of the bid security in accordance with Section 69 of the IRR of RA 9184.
- 28.3. The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted pursuant to **ITB** Clauses 12 and 13, as well as other information as the Procuring Entity deems necessary and appropriate, using a non-discretionary "pass/fail" criterion, which shall be completed within a period of twelve (12) calendar days.

- 28.4. If the BAC determines that the Bidder with the Lowest Calculated Bid passes all the criteria for post-qualification, it shall declare the said bid as the LCRB, and recommend to the HoPE the award of contract to the said Bidder at its submitted price or its calculated bid price, whichever is lower, subject to **ITB** Clause 30.3.
- 28.5. A negative determination shall result in rejection of the Bidder's bid, in which event the Procuring Entity shall proceed to the next Lowest Calculated Bid, with a fresh period to make a similar determination of that Bidder's capabilities to perform satisfactorily. If the second Bidder, however, fails the post qualification, the procedure for post qualification shall be repeated for the Bidder with the next Lowest Calculated Bid, and so on until the LCRB is determined for recommendation of contract award.
- 28.6. Within a period not exceeding fifteen (15) calendar days from the determination by the BAC of the LCRB and the recommendation to award the contract, the HoPE or his duly authorized representative shall approve or disapprove the said recommendation.
- 28.7. In the event of disapproval, which shall be based on valid, reasonable, and justifiable grounds as provided for under Section 41 of the IRR of RA 9184, the HoPE shall notify the BAC and the Bidder in writing of such decision and the grounds for it. When applicable, the BAC shall conduct a post-qualification of the Bidder with the next Lowest Calculated Bid. A request for reconsideration may be filed by the Bidder with the HoPE in accordance with Section 37.1.3 of the IRR of RA 9184.

## **29. Reservation Clause**

- 29.1. Notwithstanding the eligibility or post-qualification of a Bidder, the Procuring Entity concerned reserves the right to review its qualifications at any stage of the procurement process if it has reasonable grounds to believe that a misrepresentation has been made by the said Bidder, or that there has been a change in the Bidder's capability to undertake the project from the time it submitted its eligibility requirements. Should such review uncover any misrepresentation made in the eligibility and bidding requirements, statements or documents, or any changes in the situation of the Bidder which will affect its capability to undertake the project so that it fails the preset eligibility or bid evaluation criteria, the Procuring Entity shall consider the said Bidder as ineligible and shall disqualify it from submitting a bid or from obtaining an award or contract.
- 29.2. Based on the following grounds, the Procuring Entity reserves the right to reject any and all Bids, declare a Failure of Bidding at any time prior to the contract award, or not to award the contract, without thereby incurring any liability, and make no assurance that a contract shall be entered into as a result of the bidding:
- (a) If there is *prima facie* evidence of collusion between appropriate public officers or employees of the Procuring Entity, or between the BAC and any of the Bidders, or if the collusion is between or among the Bidders

themselves, or between a Bidder and a third party, including any act which restricts, suppresses or nullifies or tends to restrict, suppress or nullify competition;

- (b) If the Procuring Entity's BAC is found to have failed in following the prescribed bidding procedures; or
- (c) For any justifiable and reasonable ground where the award of the contract will not redound to the benefit of the GOP as follows:
  - (i) If the physical and economic conditions have significantly changed so as to render the project no longer economically, financially or technically feasible as determined by the HoPE;
  - (ii) If the project is no longer necessary as determined by the HoPE; and
  - (iii) If the source of funds for the project has been withheld or reduced through no fault of the Procuring Entity.

29.3. In addition, the Procuring Entity may likewise declare a failure of bidding when:

- (a) No bids are received;
- (b) All prospective Bidders are declared ineligible;
- (c) All bids fail to comply with all the bid requirements, fail post-qualification; or
- (d) The Bidder with the LCRB refuses, without justifiable cause, to accept the award of contract, and no award is made in accordance with Section 40 of the IRR of RA 9184.

## **F. Award of Contract**

### **30. Contract Award**

- 30.1. Subject to **ITB** Clause 28, the HoPE or its duly authorized representative shall award the contract to the Bidder whose bid has been determined to be the LCRB.
- 30.2. Prior to the expiration of the period of bid validity, the Procuring Entity shall notify the successful Bidder in writing that its bid has been accepted, through a Notice of Award duly received by the Bidder or its representative personally or by registered mail or electronically, receipt of which must be confirmed in writing within two (2) days by the Bidder with the LCRB and submitted personally or sent by registered mail or electronically to the Procuring Entity.
- 30.3. Notwithstanding the issuance of the Notice of Award, award of contract shall be subject to the following conditions:

- (a) Submission of the following documents within ten (10) calendar days from receipt of the Notice of Award:
  - (i) In the case of procurement by a Philippine Foreign Service Office or Post, the PhilGEPS Registration Number of the winning foreign Bidder; or
  - (ii) Valid PCAB license and registration for the type and cost of the contract to be bid for foreign bidders when the Treaty or International or Executive Agreement expressly allows submission of the PCAB license and registration for the type and cost of the contract to be bid as a pre-condition to the Award;
- (b) Posting of the performance security in accordance with **ITB** Clause 32;
- (c) Signing of the contract as provided in **ITB** Clause 31; and
- (d) Approval by higher authority, if required, as provided in Section 37.3 of the IRR of RA 9184.

### **31. Signing of the Contract**

- 31.1. At the same time as the Procuring Entity notifies the successful Bidder that its bid has been accepted, the Procuring Entity shall send the Contract Form to the Bidder, which Contract has been provided in the Bidding Documents, incorporating therein all agreements between the parties.
- 31.2. Within ten (10) calendar days from receipt of the Notice of Award, the successful Bidder shall post the required performance security, sign and date the contract and return it to the Procuring Entity.
- 31.3. The Procuring Entity shall enter into contract with the successful Bidder within the same ten (10) calendar day period provided that all the documentary requirements are complied with.
- 31.4. The following documents shall form part of the contract:
  - (a) Contract Agreement;
  - (b) Bidding Documents;
  - (c) Winning Bidder's bid, including the Technical and Financial Proposals, and all other documents/statements 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;
  - (d) Performance Security;
  - (e) Notice of Award of Contract; and

- (f) Other contract documents that may be required by existing laws and/or specified in the **BDS**.

## 32. Performance Security

- 32.1. To guarantee the faithful performance by the winning Bidder of its obligations under the contract, it shall post a performance security within a maximum period of ten (10) calendar days from the receipt of the Notice of Award from the Procuring Entity and in no case later than the signing of the contract.
- 32.2. The Performance Security shall be denominated in Philippine Pesos and posted in favor of the Procuring Entity in an amount not less than the percentage of the total contract price in accordance with the following schedule:

Form of Performance Security	Amount of Performance Security (Not less than the Percentage of the Total Contract Price)
<p>(a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank.</p> <p><i>For biddings conducted by the LGUs, the Cashier's/Manager's Check may be issued by other banks certified by the BSP as authorized to issue such financial instrument.</i></p>	Ten percent (10%)
<p>(b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.</p> <p><i>For biddings conducted by the LGUs, Bank Draft/Guarantee, or Irrevocable Letter of Credit may be issued by other banks certified by the BSP as authorized to issue such</i></p>	

<i>financial instrument.</i>	
(c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.	Thirty percent (30%)

32.3. Failure of the successful Bidder to comply with the above-mentioned requirement shall constitute sufficient ground for the annulment of the award and forfeiture of the bid security, in which event the Procuring Entity shall have a fresh period to initiate and complete the post qualification of the second Lowest Calculated Bid. The procedure shall be repeated until LCRB is identified and selected for recommendation of contract award. However if no Bidder passed post-qualification, the BAC shall declare the bidding a failure and conduct a re-bidding with re-advertisement, if necessary.

### **33. Notice to Proceed**

Within seven (7) calendar days from the date of approval of the Contract by the appropriate government approving authority, the Procuring Entity shall issue the Notice to Proceed (NTP) together with a copy or copies of the approved contract to the successful Bidder. All notices called for by the terms of the contract shall be effective only at the time of receipt thereof by the successful Bidder.

### **34. Protest Mechanism**

Decision of the procuring entity at any stage of the procurement process may be questioned in accordance with Sections 55 of the IRR of RA 9184.

## ***Section III. Bid Data Sheet***

### **Bid Data Sheet**

<b>ITB Clause</b>	
1.1	The PROCURING ENTITY is Philippine Nuclear Research Institute The name of the Contract is <i><b>Establishment of Two-Storey Radiation Protection Services Facility</b></i>
2	The Funding Source is: The Government of the Philippines (GoP) through the <i><b>2017 GAA</b></i> in the total amount of <i><b>79,894,400.00</b></i> The name of the Project is <i><b>Establishment of Two-Storey Radiation Protection Services Facility</b></i>
3.1	No further instructions.
5.1	The Bidder's whose experience is at least ten (10) years shall be allowed to participate in the bidding.
5.2	No Treaty or International or Executive Agreement allows participation of foreign bidders. Bidding is restricted to eligible bidders as defined in ITB Clause 5.1.
5.4	The Bidder must have completed, within the period specified in the Invitation to Bid, a single contract that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC. Bidders whose offices are not based in Metro Manila should have completed projects within Metro Manila similar to the project to bid, so that the Procuring Entity can verify the quality of workmanship.
5.4(b)	For this purpose, similar contracts shall refer to <i><b>General Building</b></i>
8.1	Subcontracting is not allowed.
8.2	Not applicable.
9.1	The Procuring Entity will hold a pre-bid conference for this Project on <i><b>July 20, 2017 at 10:00 a.m. at the 3rd Floor Conference Room, NART Building, PNRI Compound, Commonwealth Avenue, Diliman, Quezon City.</b></i>

10.1	The Procuring Entity's address is: <b><i>Philippine Nuclear Research Institute Commonwealth Avenue, Diliman, Quezon City OIC- Office of the Deputy Director Graceta de Leon Cuevas, DPA Chairperson, BAC 929-6011 to 19</i></b>
10.4	No further instructions.
12.1	No further instructions.
12.1(a)(iii)	The Bidder must be a PCAB licensed contractor with <b><i>License Classification on General Building</i></b> at least <b><i>Category C</i></b> . The Bidder must also be a registered contractor for government projects with Size Range at least <b><i>Small B</i></b> for <b><i>Building and Industrial Plant</i></b> .
12.1(b)(ii.2)	The minimum work experience requirements of key personnel to be assigned for the project shall be provided in the Key Personnel (Format of Bio-Data) form.
12.1(b)(iii.3)	The minimum major equipment requirements for the project shall be provided in the List of Equipment, Owned or Leased and/or under Purchase Agreements, Pledged to the Proposed Contract form.
13.1	For Corporation, SEC Registration shall include General Information Sheet (GIS).
13.1(b)	This shall include all of the following documents: 1) Bid prices in the Bill of Quantities; 2) Detailed estimates, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; and 3) Cash flow by quarter or payment schedule.
13.2	The ABC is <b><i>79,894,400.00</i></b> . Any bid with a financial component exceeding this amount shall not be accepted.
14.2	No further instructions.
15.4	No further instruction.
16.1	The bid prices shall be quoted in Philippine Pesos.
16.3	No further instructions.
17.1	Bids must be valid for 120 days from the date of the Opening of Bids

18.1	<p>The bid security shall be in any of the following forms and in accordance with the following amount:</p> <ol style="list-style-type: none"> <li>1. <b>P 197,888.00</b> if bid security is in (a) cash, cashier's/manager's check (b) bank draft/guarantee or irrevocable letter of credit;</li> <li>2. <b>P 494,720.00</b> if bid security is in Surety Bond;</li> </ol> <p>If a surety bond will be used, the following are the requirements:</p> <ol style="list-style-type: none"> <li>a. <i>Must have the original receipt;</i></li> <li>b. <i>Must be callable on demand;</i></li> <li>c. <i>Certified by the Insurance Commission that the surety company is authorized to issue such security.</i></li> </ol> <ol style="list-style-type: none"> <li>3. Any combination of the foregoing proportionate to the share of form with respect to total amount of security.</li> <li>4. Bid Securing Declaration</li> </ol>
18.2	The bid security shall be valid for 120 days from the date of the Opening of Bids
20.3	Each Bidder shall submit <b>One</b> original and <b>Two</b> copies of the first and second components of its bid.
21	<p>The address for submission of bids is</p> <p><b><i>PNRI 3<sup>rd</sup> Floor Conference Room, NART Building</i></b>  <b><i>Commonwealth Avenue, Diliman, Quezon City</i></b></p> <p>The deadline for submission of bids is <b><i>10:00 a.m. on August 01, 2017.</i></b></p>
24.1	<p>The place of bid opening is</p> <p><b><i>PNRI 3<sup>rd</sup> Floor Conference Room, NART Building</i></b>  <b><i>Commonwealth Avenue, Diliman, Quezon City</i></b></p> <p>The date and time of bid opening is <b><i>August 01, 2017 at 10:00 am.</i></b></p>
24.2	No further instructions.
24.3	No further instructions.
27.3	Partial bid is not allowed. The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.
27.4	No further instructions.
28.2	<p>Bidder with LCB shall submit the following documentary requirements:</p> <ol style="list-style-type: none"> <li>1. <i>BIR Registration Certification, which contains the Taxpayer's Identification Number.</i></li> <li>2. <i>Articles of Incorporation, Partnership or Cooperation, whichever is applicable including amendments thereto, if any.</i></li> </ol>

31.4(f)	<p>Additional contract documents relevant to the project to be submitted by the successful bidder:</p> <p><i>Construction schedule and S-curve, manpower schedule, construction methods, equipment utilization schedule, PERT/CPM and All Risk Insurance.</i></p>
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# ***Section IV. General Conditions of Contract***

## **TABLE OF CONTENTS**

<b>1. DEFINITIONS .....</b>	<b>39</b>
<b>2. INTERPRETATION .....</b>	<b>41</b>
<b>3. GOVERNING LANGUAGE AND LAW .....</b>	<b>41</b>
<b>4. COMMUNICATIONS .....</b>	<b>42</b>
<b>5. POSSESSION OF SITE .....</b>	<b>42</b>
<b>6. THE CONTRACTOR'S OBLIGATIONS .....</b>	<b>42</b>
<b>7. PERFORMANCE SECURITY.....</b>	<b>43</b>
<b>8. SUBCONTRACTING .....</b>	<b>44</b>
<b>9. LIQUIDATED DAMAGES .....</b>	<b>45</b>
<b>10. SITE INVESTIGATION REPORTS.....</b>	<b>45</b>
<b>11. THE PROCURING ENTITY, LICENSES AND PERMITS.....</b>	<b>45</b>
<b>12. CONTRACTOR'S RISK AND WARRANTY SECURITY .....</b>	<b>45</b>
<b>13. LIABILITY OF THE CONTRACTOR .....</b>	<b>47</b>
<b>14. PROCURING ENTITY'S RISK.....</b>	<b>48</b>
<b>15. INSURANCE .....</b>	<b>48</b>
<b>16. TERMINATION FOR DEFAULT OF CONTRACTOR .....</b>	<b>49</b>
<b>17. TERMINATION FOR DEFAULT OF PROCURING ENTITY .....</b>	<b>50</b>
<b>18. TERMINATION FOR OTHER CAUSES .....</b>	<b>50</b>
<b>19. PROCEDURES FOR TERMINATION OF CONTRACTS.....</b>	<b>52</b>
<b>20. FORCE MAJEURE, RELEASE FROM PERFORMANCE .....</b>	<b>54</b>
<b>21. RESOLUTION OF DISPUTES .....</b>	<b>55</b>
<b>22. SUSPENSION OF LOAN, CREDIT, GRANT, OR APPROPRIATION .....</b>	<b>55</b>
<b>23. PROCURING ENTITY'S REPRESENTATIVE'S DECISIONS.....</b>	<b>56</b>
<b>24. APPROVAL OF DRAWINGS AND TEMPORARY WORKS BY THE PROCURING ENTITY'S REPRESENTATIVE.....</b>	<b>56</b>
<b>25. ACCELERATION AND DELAYS ORDERED BY THE PROCURING ENTITY'S REPRESENTATIVE .....</b>	<b>56</b>
<b>26. EXTENSION OF THE INTENDED COMPLETION DATE .....</b>	<b>57</b>

<b>27. RIGHT TO VARY.....</b>	<b>57</b>
<b>28. CONTRACTORS RIGHT TO CLAIM.....</b>	<b>57</b>
<b>29. DAYWORKS .....</b>	<b>57</b>
<b>30. EARLY WARNING .....</b>	<b>58</b>
<b>31. PROGRAM OF WORK .....</b>	<b>58</b>
<b>32. MANAGEMENT CONFERENCES.....</b>	<b>59</b>
<b>33. BILL OF QUANTITIES .....</b>	<b>59</b>
<b>34. INSTRUCTIONS, INSPECTIONS AND AUDITS.....</b>	<b>59</b>
<b>35. IDENTIFYING DEFECTS .....</b>	<b>59</b>
<b>36. COST OF REPAIRS .....</b>	<b>60</b>
<b>37. CORRECTION OF DEFECTS .....</b>	<b>60</b>
<b>38. UNCORRECTED DEFECTS .....</b>	<b>60</b>
<b>39. ADVANCE PAYMENT .....</b>	<b>60</b>
<b>40. PROGRESS PAYMENTS .....</b>	<b>61</b>
<b>41. PAYMENT CERTIFICATES .....</b>	<b>61</b>
<b>42. RETENTION .....</b>	<b>62</b>
<b>43. VARIATION ORDERS .....</b>	<b>63</b>
<b>44. CONTRACT COMPLETION.....</b>	<b>64</b>
<b>45. SUSPENSION OF WORK .....</b>	<b>64</b>
<b>46. PAYMENT ON TERMINATION.....</b>	<b>65</b>
<b>47. EXTENSION OF CONTRACT TIME .....</b>	<b>66</b>
<b>48. PRICE ADJUSTMENT .....</b>	<b>67</b>
<b>49. COMPLETION .....</b>	<b>67</b>
<b>50. TAKING OVER.....</b>	<b>67</b>
<b>51. OPERATING AND MAINTENANCE MANUALS.....</b>	<b>67</b>

## 1. Definitions

For purposes of this Clause, boldface type is used to identify defined terms.

- 1.1. The **Arbiter** is the person appointed jointly by the Procuring Entity and the Contractor to resolve disputes in the first instance, as provided for in **GCC** Clause 21.
- 1.2. **Bill of Quantities** refers to a list of the specific items of the Work and their corresponding unit prices, lump sums, and/or provisional sums.
- 1.3. The **Completion Date** is the date of completion of the Works as certified by the Procuring Entity's Representative, in accordance with **GCC** Clause 49.
- 1.4. The **Contract** is the contract between the Procuring Entity and the Contractor to execute, complete, and maintain the Works.
- 1.5. The **Contract Effectivity Date** is the date of signing of the Contract. However, the contractor shall commence execution of the Works on the Start Date as defined in **GCC** Clause 1.28.
- 1.6. The **Contract Price** is the price stated in the Notice of Award and thereafter to be paid by the Procuring Entity to the Contractor for the execution of the Works in accordance with this Contract
- 1.7. **Contract Time Extension** is the allowable period for the Contractor to complete the Works in addition to the original Completion Date stated in this Contract.
- 1.8. The **Contractor** is the juridical entity whose proposal has been accepted by the Procuring Entity and to whom the Contract to execute the Work was awarded.
- 1.9. The **Contractor's Bid** is the signed offer or proposal submitted by the Contractor to the Procuring Entity in response to the Bidding Documents.
- 1.10. **Days** are calendar days; months are calendar months.
- 1.11. **Dayworks** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.
- 1.12. A **Defect** is any part of the Works not completed in accordance with the Contract.
- 1.13. The **Defects Liability Certificate** is the certificate issued by Procuring Entity's Representative upon correction of defects by the Contractor.
- 1.14. The **Defects Liability Period** is the one year period between contract completion and final acceptance within which the Contractor assumes the responsibility to undertake the repair of any damage to the Works at his own expense.

- 1.15 **Drawings** are graphical presentations of the Works. They include all supplementary details, shop drawings, calculations, and other information provided or approved for the execution of this Contract.
- 1.16 **Equipment** refers to all facilities, supplies, appliances, materials or things required for the execution and completion of the Work provided by the Contractor and which shall not form or are not intended to form part of the Permanent Works.
- 1.17 The **Intended Completion Date** refers to the date specified in the **SCC** when the Contractor is expected to have completed the Works. The Intended Completion Date may be revised only by the Procuring Entity's Representative by issuing an extension of time or an acceleration order.
- 1.18 **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- 1.19 The **Notice to Proceed** is a written notice issued by the Procuring Entity or the Procuring Entity's Representative to the Contractor requiring the latter to begin the commencement of the work not later than a specified or determinable date.
- 1.20 **Permanent Works** are all permanent structures and all other project features and facilities required to be constructed and completed in accordance with this Contract which shall be delivered to the Procuring Entity and which shall remain at the Site after the removal of all Temporary Works.
- 1.21 **Plant** refers to the machinery, apparatus, and the like intended to form an integral part of the Permanent Works.
- 1.22 The **Procuring Entity** is the party who employs the Contractor to carry out the Works stated in the **SCC**.
- 1.23 The **Procuring Entity's Representative** refers to the Head of the Procuring Entity or his duly authorized representative, identified in the **SCC**, who shall be responsible for supervising the execution of the Works and administering this Contract.
- 1.24 The **Site** is the place provided by the Procuring Entity where the Works shall be executed and any other place or places which may be designated in the **SCC**, or notified to the Contractor by the Procuring Entity's Representative as forming part of the Site.
- 1.25 **Site Investigation Reports** are those that were included in the Bidding Documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.
- 1.26 **Slippage** is a delay in work execution occurring when actual accomplishment falls below the target as measured by the difference between the scheduled and actual accomplishment of the Work by the Contractor as established from the work schedule. This is actually described as a percentage of the whole Works.
- 1.27 **Specifications** means the description of Works to be done and the qualities of materials to be used, the equipment to be installed and the mode of construction.
- 1.28 The **Start Date**, as specified in the **SCC**, is the date when the Contractor is obliged to commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.

- 1.29 A **Subcontractor** is any person or organization to whom a part of the Works has been subcontracted by the Contractor, as allowed by the Procuring Entity, but not any assignee of such person.
- 1.30 **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Permanent Works.
- 1.31 **Work(s)** refer to the Permanent Works and Temporary Works to be executed by the Contractor in accordance with this Contract, including (i) the furnishing of all labor, materials, equipment and others incidental, necessary or convenient to the complete execution of the Works; (ii) the passing of any tests before acceptance by the Procuring Entity's Representative; (iii) and the carrying out of all duties and obligations of the Contractor imposed by this Contract as described in the **SCC**.

## **2. Interpretation**

- 2.1. In interpreting the Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of this Contract unless specifically defined. The Procuring Entity's Representative will provide instructions clarifying queries about the Conditions of Contract.
- 2.2. If sectional completion is specified in the **SCC**, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3. The documents forming this Contract shall be interpreted in the following order of priority:
- a) Contract Agreement;
  - b) Bid Data Sheet;
  - c) Instructions to Bidders;
  - d) Addenda to the Bidding Documents;
  - e) Special Conditions of Contract;
  - f) General Conditions of Contract;
  - g) Specifications;
  - h) Bill of Quantities; and
  - i) Drawings.

## **3. Governing Language and Law**

- 3.1. This Contract has been executed in the English language, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract. All correspondence and other documents pertaining to this Contract which are exchanged by the parties shall be written in English.
- 3.2. This Contract shall be interpreted in accordance with the laws of the Republic of the Philippines.

#### **4. Communications**

Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is received by the concerned party.

#### **5. Possession of Site**

- 5.1. On the date specified in the **SCC**, the Procuring Entity shall grant the Contractor possession of so much of the Site as may be required to enable it to proceed with 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.
- 5.2. If possession of a portion is not given by the date stated in the SCC Clause 5.1, 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 shall be in accordance with **GCC** Clause 47.
- 5.3. The Contractor shall bear all costs and charges for special or temporary right-of-way required by it in connection with access to the Site. The Contractor shall also provide at his own cost any additional facilities outside the Site required by it for purposes of the Works.
- 5.4. The Contractor shall allow the Procuring Entity's Representative and any person authorized by the Procuring Entity's Representative access to the Site and to any place where work in connection with this Contract is being carried out or is intended to be carried out.

#### **6. The ~~RQWUDEWRUM2EOLDWLRQV~~**

- 6.1. The Contractor shall carry out the Works properly and in accordance with this Contract. The Contractor shall provide all supervision, labor, Materials, Plant and Contractor's Equipment, which may be required. All Materials and Plant on Site shall be deemed to be the property of the Procuring Entity.

- 6.2. The Contractor shall commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program of Work submitted by the Contractor, as updated with the approval of the Procuring Entity's Representative, and complete them by the Intended Completion Date.
- 6.3. The Contractor shall be responsible for the safety of all activities on the Site.
- 6.4. The Contractor shall carry out all instructions of the Procuring Entity's Representative that comply with the applicable laws where the Site is located.
- 6.5. The Contractor shall employ the key personnel named in the Schedule of Key Personnel, as referred to in the SCC, 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.
- 6.6. If the Procuring Entity's Representative asks the Contractor to remove a member of the Contractor's staff or work force, for justifiable cause, the Contractor shall ensure that the person leaves the Site within seven (7) days and has no further connection with the Work in this Contract.
- 6.7. During Contract implementation, the Contractor and his subcontractors shall abide at all times by all labor laws, including child labor related enactments, and other relevant rules.
- 6.8. The Contractor shall submit to the Procuring Entity for consent the name and particulars of the person authorized to receive instructions on behalf of the Contractor.
- 6.9. The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Procuring Entity between the dates given in the schedule of other contractors particularly when they shall require access to the Site. The Contractor shall also provide facilities and services for them during this period. The Procuring Entity may modify the schedule of other contractors, and shall notify the Contractor of any such modification thereto.
- 6.10. Should anything of historical or other interest or of significant value be unexpectedly discovered on the Site, it shall be the property of the Procuring Entity. The Contractor shall notify the Procuring Entity's Representative of such discoveries and carry out the Procuring Entity's Representative's instructions in dealing with them.

## **7. Performance Security**

- 7.1. 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 Contractor shall furnish the performance security in any of the forms prescribed in **ITB** Clause 32.2.

- 7.2. The performance security posted in favor of the Procuring Entity shall be forfeited in the event it is established that the Contractor is in default in any of its obligations under the Contract.
- 7.3. The performance security shall remain valid until issuance by the Procuring Entity of the Certificate of Final Acceptance.
- 7.4. The performance security may be released by the Procuring Entity and returned to the Contractor after the issuance of the Certificate of Final Acceptance subject to the following conditions:
  - (a) There are no pending claims against the Contractor or the surety company filed by the Procuring Entity;
  - (b) The Contractor has no pending claims for labor and materials filed against it; and
  - (c) Other terms specified in the **SCC**.
- 7.5. The Contractor shall post an additional performance security following the amount and form specified in **ITB** Clause 32.2 to cover any cumulative increase of more than ten percent (10%) over the original value of the contract as a result of amendments to order or change orders, extra work orders and supplemental agreements, as the case may be. The Contractor shall cause the extension of the validity of the performance security to cover approved contract time extensions.
- 7.6. In case of a reduction in the contract value or for partially completed Works under the contract which are usable and accepted by the Procuring Entity the use of which, in the judgment of the implementing agency or the Procuring Entity, will not affect the structural integrity of the entire project, the Procuring Entity shall allow a proportional reduction in the original performance security, provided that any such reduction is more than ten percent (10%) and that the aggregate of such reductions is not more than fifty percent (50%) of the original performance security.
- 7.7. Unless otherwise indicated in the **SCC**, the Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to Act 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.

## **8. Subcontracting**

- 8.1. Unless otherwise indicated in the **SCC**, the Contractor cannot subcontract Works more than the percentage specified in **BDS** Clause 8.1.
- 8.2. Subcontracting of any portion of the Works does not relieve the Contractor of any liability or obligation under this Contract. The Contractor will be responsible for the acts, defaults, and negligence of any subcontractor, its

agents, servants or workmen as fully as if these were the Contractor's own acts, defaults, or negligence, or those of its agents, servants or workmen.

- 8.3. If subcontracting is allowed. The contractor may identify its subcontractor during contract implementation stage. Subcontractors disclosed and identified during the bidding may be changed during the implementation of this Contract. In either case, subcontractors must submit the documentary requirements under ITB Clause 12 and comply with the eligibility criteria specified in the **BDS**. In the event that any subcontractor is found by any Procuring Entity to be eligible, the subcontracting of such portion of the Works shall be disallowed.

## **9. Liquidated Damages**

- 9.1. The Contractor shall pay liquidated damages to the Procuring Entity for each day that the Completion Date is later than the Intended Completion Date. The applicable liquidated damages is at least one-tenth (1/10) of a percent of the cost of the unperformed portion for every day of delay. The total amount of liquidated damages shall not exceed ten percent (10%) of the amount of the contract. The Procuring Entity may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities. Once the cumulative amount of liquidated damages reaches ten percent (10%) of the amount of this Contract, the Procuring Entity may rescind or terminate this Contract, without prejudice to other courses of action and remedies available under the circumstances.
- 9.2. If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer of the Procuring Entity shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate.

## **10. 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.

## **11. The Procuring Entity, Licenses and Permits**

The Procuring Entity shall, if requested by the Contractor, assist him in applying for permits, licenses or approvals, which are required for the Works.

## **12. & R Q W U D F W R U ¶ V 5 L V N D Q G : D U U D Q W \ 6 H F X U L V**

- 12.1. The Contractor shall assume full responsibility for the Works from the time project construction commenced up to final acceptance by the Procuring Entity and shall be held responsible for any damage or destruction of the Works except those occasioned by *force majeure*. The Contractor shall be fully responsible for the safety, protection, security, and convenience of his personnel, third parties, and the public at large, as well as the Works, Equipment, installation, and the like to be affected by his construction work.

- 12.2. The defects liability period for infrastructure projects shall be one year from contract completion up to final acceptance by the Procuring Entity. During this period, the Contractor shall undertake the repair works, at his own expense, of any damage to the Works on account of the use of materials of inferior quality within ninety (90) days from the time the HoPE has issued an order to undertake repair. In case of failure or refusal to comply with this mandate, the Procuring Entity shall undertake such repair works and shall be entitled to full reimbursement of expenses incurred therein upon demand.
- 12.3. Unless otherwise indicated in the **SCC**, in case the Contractor fails to comply with the preceding paragraph, 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.
- 12.4. After final acceptance of the Works by the Procuring Entity, the Contractor shall be held responsible for “Structural Defects,” *i.e.*, major faults/flaws/deficiencies in one or more key structural elements of the project which may lead to structural failure of the completed elements or structure, or “Structural Failures,” *i.e.*, where one or more key structural elements in an infrastructure facility fails or collapses, thereby rendering the facility or part thereof incapable of withstanding the design loads, and/or endangering the safety of the users or the general public:
- (a) Contractor – Where Structural Defects/Failures arise due to faults attributable to improper construction, use of inferior quality/substandard materials, and any violation of the contract plans and specifications, the contractor shall be held liable;
  - (b) Consultants – Where Structural Defects/Failures arise due to faulty and/or inadequate design and specifications as well as construction supervision, then the consultant who prepared the design or undertook construction supervision for the project shall be held liable;
  - (c) Procuring Entity’s Representatives/Project Manager/Construction Managers and Supervisors – The project owner’s representative(s), project manager, construction manager, and supervisor(s) shall be held liable in cases where the Structural Defects/Failures are due to his/their willful intervention in altering the designs and other specifications; negligence or omission in not approving or acting on proposed changes to noted defects or deficiencies in the design and/or specifications; and the use of substandard construction materials in the project;
  - (d) Third Parties - Third Parties shall be held liable in cases where Structural Defects/Failures are caused by work undertaken by them such as leaking pipes, diggings or excavations, underground cables and electrical wires, underground tunnel, mining shaft and the like, in which case the applicable warranty to such structure should be levied to third parties for their construction or restoration works.

- (e) Users - In cases where Structural Defects/Failures are due to abuse/misuse by the end user of the constructed facility and/or non-compliance by a user with the technical design limits and/or intended purpose of the same, then the user concerned shall be held liable.
- 12.5. The warranty against Structural Defects/Failures, except those occasioned on force majeure, shall cover the period specified in the **SCC** reckoned from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity.
- 12.6. The Contractor shall be required to put up a warranty security in the form of cash, bank guarantee, letter of credit, GSIS or surety bond callable on demand, in accordance with the following schedule:

Form of Warranty	Amount of Warranty Security Not less than the Percentage (%) of Total Contract Price
(a) Cash or letter of credit issued by Universal or Commercial bank: provided, however, that the letter of credit shall be confirmed or authenticated by a Universal or Commercial bank, if issued by a foreign bank	Five Percent (5%)
(b) Bank guarantee confirmed by Universal or Commercial bank: provided, however, that the letter of credit shall be confirmed or authenticated by a Universal or Commercial bank, if issued by a foreign bank	Ten Percent (10%)
(c) Surety bond callable upon demand issued by GSIS or any surety or insurance company duly certified by the Insurance Commission	Thirty Percent (30%)

- 12.7. The warranty security shall be stated in Philippine Pesos and shall remain effective for one year from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity, and returned only after the lapse of said one year period.
- 12.8. In case of structural defects/failure occurring during the applicable warranty period provided in **GCC** Clause 12.5, the Procuring Entity shall undertake the necessary restoration or reconstruction works and shall be entitled to full reimbursement by the parties found to be liable for expenses incurred therein upon demand, without prejudice to the filing of appropriate administrative, civil, and/or criminal charges against the responsible persons as well as the forfeiture of the warranty security posted in favor of the Procuring Entity.

### **13. 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.

#### **14. Procuring QWLWRisk**

14.1. From the Start Date until the Certificate of Final Acceptance has been issued, the following are risks of the Procuring Entity:

- (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to:
  - (i) any type of use or occupation of the Site authorized by the Procuring Entity after the official acceptance of the works; or
  - (ii) negligence, breach of statutory duty, or interference with any legal right by the Procuring Entity or by any person employed by or contracted to him except the Contractor.
- (b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Procuring Entity or in the Procuring Entity's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

#### **15. Insurance**

15.1. The Contractor shall, under his name and at his own expense, obtain and maintain, for the duration of this Contract, the following insurance coverage:

- (a) Contractor's All Risk Insurance;
- (b) Transportation to the project Site of Equipment, Machinery, and Supplies owned by the Contractor;
- (c) Personal injury or death of Contractor's employees; and
- (d) Comprehensive insurance for third party liability to Contractor's direct or indirect act or omission causing damage to third persons.

15.2. The Contractor shall provide evidence to the Procuring Entity's Representative that the insurances required under this Contract have been effected and shall, within a reasonable time, provide copies of the insurance policies to the Procuring Entity's Representative. Such evidence and such policies shall be provided to the Procuring Entity's through the Procuring Entity's Representative.

15.3. The Contractor shall notify the insurers of changes in the nature, extent, or program for the execution of the Works and ensure the adequacy of the insurances at all times in accordance with the terms of this Contract and shall produce to the Procuring Entity's Representative the insurance policies in force including the receipts for payment of the current premiums.

The above insurance policies shall be obtained from any reputable insurance company approved by the Procuring Entity's Representative.

- 15.4. If the Contractor fails to obtain and keep in force the insurances referred to herein or any other insurance which he may be required to obtain under the terms of this Contract, the Procuring Entity may obtain and keep in force any such insurances and pay such premiums as may be necessary for the purpose. From time to time, the Procuring Entity may deduct the amount it shall pay for said premiums including twenty five percent (25%) therein from any monies due, or which may become due, to the Contractor, without prejudice to the Procuring Entity exercising its right to impose other sanctions against the Contractor pursuant to the provisions of this Contract.
- 15.5. In the event the Contractor fails to observe the above safeguards, the Procuring Entity may, at the Contractor's expense, take whatever measure is deemed necessary for its protection and that of the Contractor's personnel and third parties, and/or order the interruption of dangerous Works. In addition, the Procuring Entity may refuse to make the payments under GCC Clause 40 until the Contractor complies with this Clause.
- 15.6. The Contractor shall immediately replace the insurance policy obtained as required in this Contract, without need of the Procuring Entity's demand, with a new policy issued by a new insurance company acceptable to the Procuring Entity for any of the following grounds:
  - (a) The issuer of the insurance policy to be replaced has:
    - (i) become bankrupt;
    - (ii) been placed under receivership or under a management committee;
    - (iii) been sued for suspension of payment; or
    - (iv) been suspended by the Insurance Commission and its license to engage in business or its authority to issue insurance policies cancelled; or
    - (v) Where reasonable grounds exist that the insurer may not be able, fully and promptly, to fulfill its obligation under the insurance policy.

## **16. Termination for Default of Contractor**

- 16.1. The Procuring Entity shall terminate this Contract for default when any of the following conditions attend its implementation:
  - (i) Due to the Contractor's fault and while the project is on-going, it has incurred negative slippage of fifteen percent (15%) or more in accordance with Presidential Decree 1870, regardless of whether or not

previous warnings and notices have been issued for the Contractor to improve his performance;

- (ii) Due to its own fault and after this Contract time has expired, the Contractor incurs delay in the completion of the Work after this Contract has expired; or
- (iii) The Contractor:
  - (i) abandons the contract Works, refuses or fails to comply with a valid instruction of the Procuring Entity or fails to proceed expeditiously and without delay despite a written notice by the Procuring Entity;
  - (ii) does not actually have on the project Site the minimum essential equipment listed on the bid necessary to prosecute the Works in accordance with the approved Program of Work and equipment deployment schedule as required for the project;
  - (iii) does not execute the Works in accordance with this Contract or persistently or flagrantly neglects to carry out its obligations under this Contract;
  - (iv) neglects or refuses to remove materials or to perform a new Work that has been rejected as defective or unsuitable; or
  - (v) sub-lets any part of this Contract without approval by the Procuring Entity.

16.2. All materials on the Site, Plant, Works, including Equipment purchased and funded under the Contract shall be deemed to be the property of the Procuring Entity if this Contract is rescinded because of the Contractor's default.

## **17. Termination for Default of Procuring Entity**

The Contractor may terminate this Contract with the Procuring Entity if the works are completely stopped for a continuous period of at least sixty (60) calendar days through no fault of its own, due to any of the following reasons:

- (a) Failure of the Procuring Entity to deliver, within a reasonable time, supplies, materials, right-of-way, or other items it is obligated to furnish under the terms of this Contract; or
- (b) The prosecution of the Work is disrupted by the adverse peace and order situation, as certified by the Armed Forces of the Philippines Provincial Commander and approved by the Secretary of National Defense.

## **18. Termination for Other Causes**

18.1. The Procuring Entity may terminate this Contract, in whole or in part, at any time for its convenience. The HoPE may terminate this Contract for the convenience of the Procuring Entity if he has determined the existence of

conditions that make Project Implementation economically, financially or technically impractical and/or unnecessary, such as, but not limited to, fortuitous event(s) or changes in law and National Government policies.

- 18.2. The Procuring Entity or the Contractor may terminate this Contract if the other party causes a fundamental breach of this Contract.
- 18.3. Fundamental breaches of Contract shall include, but shall not be limited to, the following:
  - (a) The Contractor stops work for twenty eight (28) days when no stoppage of work is shown on the current Program of Work and the stoppage has not been authorized by the Procuring Entity's Representative;
  - (b) The Procuring Entity's Representative instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within twenty eight (28) days;
  - (c) The Procuring Entity shall terminate this Contract if the Contractor is declared bankrupt or insolvent as determined with finality by a court of competent jurisdiction. In this event, termination will be without compensation to the Contractor, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Procuring Entity and/or the Contractor. In the case of the Contractor's insolvency, any Contractor's Equipment which the Procuring Entity instructs in the notice is to be used until the completion of the Works;
  - (d) A payment certified by the Procuring Entity's Representative is not paid by the Procuring Entity to the Contractor within eighty four (84) days from the date of the Procuring Entity's Representative's certificate;
  - (e) The Procuring Entity's Representative gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Procuring Entity's Representative;
  - (f) The Contractor does not maintain a Security, which is required;
  - (g) The Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the **GCC** Clause 9; and
  - (h) 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, the following:

- (i) corrupt, fraudulent, collusive, coercive, and obstructive practices as defined in **ITB** Clause 3.1(a), unless otherwise specified in the SCC;
  - (ii) drawing up or using forged documents;
  - (iii) using adulterated materials, means or methods, or engaging in production contrary to rules of science or the trade; and
  - (iv) any other act analogous to the foregoing.
- 18.4. The Funding Source or the Procuring Entity, as appropriate, will seek to impose the maximum civil, administrative and/or criminal penalties available under the applicable law on individuals and organizations deemed to be involved with corrupt, fraudulent, or coercive practices.
- 18.5. When persons from either party to this Contract gives notice of a fundamental breach to the Procuring Entity's Representative in order to terminate the existing contract for a cause other than those listed under **GCC** Clause 18.3, the Procuring Entity's Representative shall decide whether the breach is fundamental or not.
- 18.6. If this Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

## **19. Procedures for Termination of Contracts**

- 19.1. The following provisions shall govern the procedures for the termination of this Contract:
- (a) Upon receipt of a written report of acts or causes which may constitute ground(s) for termination as aforementioned, or upon its own initiative, the Procuring Entity shall, within a period of seven (7) calendar days, verify the existence of such ground(s) and cause the execution of a Verified Report, with all relevant evidence attached;
  - (b) Upon recommendation by the Procuring Entity, the HoPE shall terminate this Contract only by a written notice to the Contractor conveying the termination of this Contract. The notice shall state:
    - (i) that this Contract is being terminated for any of the ground(s) afore-mentioned, and a statement of the acts that constitute the ground(s) constituting the same;
    - (ii) the extent of termination, whether in whole or in part;
    - (iii) an instruction to the Contractor to show cause as to why this Contract should not be terminated; and
    - (iv) special instructions of the Procuring Entity, if any.

The Notice to Terminate shall be accompanied by a copy of the Verified Report;

- (c) Within a period of seven (7) calendar days from receipt of the Notice of Termination, the Contractor shall submit to the HoPE a verified position paper stating why the contract should not be terminated. If the Contractor fails to show cause after the lapse of the seven (7) day period, either by inaction or by default, the HoPE shall issue an order terminating the contract;
- (d) The Procuring Entity may, at anytime before receipt of the Contractor's verified position paper described in item (c) above withdraw the Notice to Terminate if it is determined that certain items or works subject of the notice had been completed, delivered, or performed before the Contractor's receipt of the notice;
- (e) Within a non-extendible period of ten (10) calendar days from receipt of the verified position paper, the HoPE shall decide whether or not to terminate this Contract. It shall serve a written notice to the Contractor of its decision and, unless otherwise provided in the said notice, this Contract is deemed terminated from receipt of the Contractor of the notice of decision. The termination shall only be based on the ground(s) stated in the Notice to Terminate; and
- (f) The HoPE may create a Contract Termination Review Committee (CTRC) to assist him in the discharge of this function. All decisions recommended by the CTRC shall be subject to the approval of the HoPE.

19.2. Pursuant to Section 69(f) of RA 9184 and without prejudice to the imposition of additional administrative sanctions as the internal rules of the agency may provide and/or further criminal prosecution as provided by applicable laws, the procuring entity shall impose on contractors after the termination of the contract the penalty of suspension for one (1) year for the first offense, suspension for two (2) years for the second offense from participating in the public bidding process, for violations committed during the contract implementation stage, which include but not limited to the following:

- (a) Failure of the contractor, due solely to his fault or negligence, to mobilize and start work or performance within the specified period in the Notice to Proceed ("NTP");
- (b) Failure by the contractor to fully and faithfully comply with its contractual obligations without valid cause, or failure by the contractor to comply with any written lawful instruction of the procuring entity or its representative(s) pursuant to the implementation of the contract. For the procurement of infrastructure projects or consultancy contracts, lawful instructions include but are not limited to the following:
  - (i) Employment of competent technical personnel, competent engineers and/or work supervisors;
  - (ii) Provision of warning signs and barricades in accordance with approved plans and specifications and contract provisions;

- (iii) Stockpiling in proper places of all materials and removal from the project site of waste and excess materials, including broken pavement and excavated debris in accordance with approved plans and specifications and contract provisions;
  - (iv) Deployment of committed equipment, facilities, support staff and manpower; and
  - (v) Renewal of the effectivity dates of the performance security after its expiration during the course of contract implementation.
- (c) Assignment and subcontracting of the contract or any part thereof or substitution of key personnel named in the proposal without prior written approval by the procuring entity.
- (d) Poor performance by the contractor or unsatisfactory quality and/or progress of work arising from his fault or negligence as reflected in the Constructor's Performance Evaluation System ("CPES") rating sheet. In the absence of the CPES rating sheet, the existing performance monitoring system of the procuring entity shall be applied. Any of the following acts by the Contractor shall be construed as poor performance:
- (i) Negative slippage of 15% and above within the critical path of the project due entirely to the fault or negligence of the contractor; and
  - (ii) Quality of materials and workmanship not complying with the approved specifications arising from the contractor's fault or negligence.
- (e) Willful or deliberate abandonment or non-performance of the project or contract by the contractor resulting to substantial breach thereof without lawful and/or just cause.

In addition to the penalty of suspension, the performance security posted by the contractor shall also be forfeited.

## **20. Force Majeure, Release From Performance**

- 20.1. For purposes of this Contract the terms "*force majeure*" and "fortuitous event" may be used interchangeably. In this regard, a fortuitous event or *force majeure* shall be interpreted to mean an event which the Contractor could not have foreseen, or which though foreseen, was inevitable. It shall not include ordinary unfavorable weather conditions; and any other cause the effects of which could have been avoided with the exercise of reasonable diligence by the Contractor.
- 20.2. If this Contract is discontinued by an outbreak of war or by any other event entirely outside the control of either the Procuring Entity or the Contractor, the

Procuring Entity's Representative shall certify that this Contract has been discontinued. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all works carried out before receiving it and for any Work carried out afterwards to which a commitment was made.

- 20.3. If the event continues for a period of eighty four (84) days, either party may then give notice of termination, which shall take effect twenty eight (28) days after the giving of the notice.
- 20.4. After termination, the Contractor shall be entitled to payment of the unpaid balance of the value of the Works executed and of the materials and Plant reasonably delivered to the Site, adjusted by the following:
  - (a) any sum to which the Contractor is entitled under **GCC** Clause 28;
  - (b) the cost of his suspension and demobilization;
  - (c) any sum to which the Procuring Entity is entitled.
- 20.5. The net balance due shall be paid or repaid within a reasonable time period from the time of the notice of termination.

## **21. Resolution of Disputes**

- 21.1. If any dispute or difference of any kind whatsoever shall arise between the parties in connection with the implementation of the contract covered by the Act and this IRR, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
- 21.2. If the Contractor believes that a decision taken by the Procuring Entity's Representative was either outside the authority given to the Procuring Entity's Representative by this Contract or that the decision was wrongly taken, the decision shall be referred to the Arbiter indicated in the **SCC** within fourteen (14) days of the notification of the Procuring Entity's Representative's decision.
- 21.3. Any and all disputes arising from the implementation of this Contract covered by the R.A. 9184 and its IRR shall be submitted to arbitration in the Philippines according to the provisions of Republic Act No. 876, otherwise known as the "Arbitration Law" and Republic Act 9285, otherwise known as the "Alternative Dispute Resolution Act of 2004": *Provided, however*, That, disputes that are within the competence of the Construction Industry Arbitration Commission to resolve shall be referred thereto. The process of arbitration shall be incorporated as a provision in this Contract that will be executed pursuant to the provisions of the Act and its IRR: *Provided, further*, That, by mutual agreement, the parties may agree in writing to resort to other alternative modes of dispute resolution.

## **22. Suspension of Loan, Credit, Grant, or Appropriation**

In the event that the Funding Source suspends the Loan, Credit, Grant, or Appropriation to the Procuring Entity, from which part of the payments to the Contractor are being made:

- (a) The Procuring Entity is obligated to notify the Contractor of such suspension within seven (7) days of having received the suspension notice.
- (b) If the Contractor has not received sums due it for work already done within forty five (45) days from the time the Contractor's claim for payment has been certified by the Procuring Entity's Representative, the Contractor may immediately issue a suspension of work notice in accordance with GCC Clause 45.2.

## **23. SURF XUL Q J5 HSW H W H Q W D W L Y H T V ' H F L V L R Q V**

- 23.1. Except where otherwise specifically stated, the Procuring Entity's Representative will decide contractual matters between the Procuring Entity and the Contractor in the role representing the Procuring Entity.
- 23.2. The Procuring Entity's Representative may delegate any of his duties and responsibilities to other people, except to the Arbiter, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

## **24. Approval of Drawings and Temporary Works by the Procuring QW D W R Representative**

- 24.1. All Drawings prepared by the Contractor for the execution of the Temporary Works, are subject to prior approval by the Procuring Entity's Representative before its use.
- 24.2. The Contractor shall be responsible for design of Temporary Works.
- 24.3. The Procuring Entity's Representative's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
- 24.4. The Contractor shall obtain approval of third parties to the design of the Temporary Works, when required by the Procuring Entity.

## **25. Acceleration and Delays Ordered by the 3UREU L Q Q W D W R Representative**

- 25.1. When the Procuring Entity wants the Contractor to finish before the Intended Completion Date, the Procuring Entity's Representative will obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Procuring Entity accepts these proposals, the Intended Completion Date will be adjusted accordingly and confirmed by both the Procuring Entity and the Contractor.
- 25.2. If the Contractor's Financial Proposals for an acceleration are accepted by the Procuring Entity, they are incorporated in the Contract Price and treated as a Variation.

## **26. Extension of the Intended Completion Date**

- 26.1. The Procuring Entity's Representative shall extend the Intended Completion Date if a Variation is issued which makes it impossible for the Intended Completion Date to be achieved by the Contractor without taking steps to accelerate the remaining work, which would cause the Contractor to incur additional costs. No payment shall be made for any event which may warrant the extension of the Intended Completion Date.
- 26.2. The Procuring Entity's Representative shall decide whether and by how much to extend the Intended Completion Date within twenty one (21) days of the Contractor asking the Procuring Entity's Representative for a decision thereto after fully submitting all supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

## **27. Right to Vary**

- 27.1. The Procuring Entity's Representative with the prior approval of the Procuring Entity may instruct Variations, up to a maximum cumulative amount of ten percent (10%) of the original contract cost.
- 27.2. Variations shall be valued as follows:
- (a) At a lump sum price agreed between the parties;
  - (b) where appropriate, at rates in this Contract;
  - (c) in the absence of appropriate rates, the rates in this Contract shall be used as the basis for valuation; or failing which at appropriate new rates, equal to or lower than current industry rates and to be agreed upon by both parties and approved by the HoPE.

## **28. Contractor's Right to Claim**

If the Contractor incurs cost as a result of any of the events under **GCC** Clause 13, the Contractor shall be entitled to the amount of such cost. If as a result of any of the said events, it is necessary to change the Works, this shall be dealt with as a Variation.

## **29. Dayworks**

- 29.1. Subject to **GCC** Clause 43 on Variation Order, 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.
- 29.2. All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Procuring Entity's Representative. Each completed form shall be verified and signed by the Procuring Entity's Representative within two days of the work being done.

- 29.3. The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

### **30. Early Warning**

- 30.1. The Contractor shall warn the Procuring Entity's Representative at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Procuring Entity's Representative may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.
- 30.2. The Contractor shall cooperate with the Procuring Entity's Representative in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Procuring Entity's Representative.

### **31. Program of Work**

- 31.1. Within the time stated in the **SCC**, the Contractor shall submit to the Procuring Entity's Representative for approval a Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works.
- 31.2. An update of the Program of Work shall show the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
- 31.3. 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.
- 31.4. The Procuring Entity's Representative's approval of the Program of Work shall not alter the Contractor's obligations. The Contractor may revise the Program of Work and submit it to the Procuring Entity's Representative again at any time. A revised Program of Work shall show the effect of any approved Variations.
- 31.5. When the Program of Work is updated, the Contractor shall provide the Procuring Entity's Representative with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.
- 31.6. All Variations shall be included in updated Program of Work produced by the Contractor.

## **32. Management Conferences**

- 32.1. Either the Procuring Entity's Representative or the Contractor may require the other to attend a Management Conference. The Management Conference shall review the plans for remaining work and deal with matters raised in accordance with the early warning procedure.
- 32.2. The Procuring Entity's Representative shall record the business of Management Conferences and provide copies of the record to those attending the Conference and to the Procuring Entity. The responsibility of the parties for actions to be taken shall be decided by the Procuring Entity's Representative either at the Management Conference or after the Management Conference and stated in writing to all who attended the Conference.

## **33. Bill of Quantities**

- 33.1. The Bill of Quantities shall contain items of work for the construction, installation, testing, and commissioning of work to be done by the Contractor.
- 33.2. The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.
- 33.3. If the final quantity of any work done differs from the quantity in the Bill of Quantities for the particular item and is not more than twenty five percent (25%) of the original quantity, provided the aggregate changes for all items do not exceed ten percent (10%) of the Contract price, the Procuring Entity's Representative shall make the necessary adjustments to allow for the changes subject to applicable laws, rules, and regulations.
- 33.4. If requested by the Procuring Entity's Representative, the Contractor shall provide the Procuring Entity's Representative with a detailed cost breakdown of any rate in the Bill of Quantities.

## **34. Instructions, Inspections and Audits**

- 34.1. The Procuring Entity's personnel shall at all reasonable times during construction of the Work be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of the construction.
- 34.2. If the Procuring Entity's Representative instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no defect, the test shall be a Compensation Event.
- 34.3. The Contractor shall permit the Funding Source named in the **SCC** to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Funding Source, if so required by the Funding Source.

## **35. Identifying Defects**

The Procuring Entity's Representative shall check the Contractor's work and notify the Contractor of any defects that are found. Such checking shall not affect the Contractor's responsibilities. The Procuring Entity's Representative may instruct the Contractor to search uncover defects and test any work that the Procuring Entity's Representative considers below standards and defective.

### **36. Cost of Repairs**

Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Liability Periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

### **37. Correction of Defects**

- 37.1. The Procuring Entity's Representative shall give notice to the Contractor of any defects before the end of the Defects Liability Period, which is One (1) year from project completion up to final acceptance by the Procuring Entity's Representative.
- 37.2. Every time notice of a defect is given, the Contractor shall correct the notified defect within the length of time specified in the Procuring Entity's Representative's notice.
- 37.3. The Contractor shall correct the defects which he notices himself before the end of the Defects Liability Period.
- 37.4. The Procuring Entity shall certify that all defects have been corrected. If the Procuring Entity considers that correction of a defect is not essential, he can request the Contractor to submit a quotation for the corresponding reduction in the Contract Price. If the Procuring Entity accepts the quotation, the corresponding change in the SCC is a Variation.

### **38. Uncorrected Defects**

- 38.1. The Procuring Entity shall give the Contractor at least fourteen (14) days notice of his intention to use a third party to correct a Defect. If the Contractor does not correct the Defect himself within the period, the Procuring Entity may have the Defect corrected by the third party. The cost of the correction will be deducted from the Contract Price.
- 38.2. The use of a third party to correct defects that are uncorrected by the Contractor will in no way relieve the Contractor of its liabilities and warranties under the Contract.

### **39. Advance Payment**

- 39.1. 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.

- 39.2. The advance payment shall be made only upon the submission to and acceptance by the Procuring Entity of an irrevocable standby letter of credit of equivalent value from a commercial bank, a bank guarantee or a surety bond callable upon demand, issued by a surety or insurance company duly licensed by the Insurance Commission and confirmed by the Procuring Entity.
- 39.3. The advance payment shall be repaid by the Contractor by an amount equal to the percentage of the total contract price used for the advance payment.
- 39.4. The contractor may reduce his standby letter of credit or guarantee instrument by the amounts refunded by the Monthly Certificates in the advance payment.
- 39.5. The Procuring Entity will provide an Advance Payment on the Contract Price as stipulated in the Conditions of Contract, subject to the maximum amount stated in **SCC** Clause 39.1.

#### **40. Progress Payments**

- 40.1. The Contractor may submit a request for payment for Work accomplished. Such request 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.
- 40.2. The Procuring Entity shall deduct the following from the certified gross amounts to be paid to the contractor as progress payment:
  - (a) Cumulative value of the work previously certified and paid for.
  - (b) Portion of the advance payment to be recouped for the month.
  - (c) Retention money in accordance with the condition of contract.
  - (d) Amount to cover third party liabilities.
  - (e) Amount to cover uncorrected discovered defects in the works.
- 40.3. Payments shall be adjusted by deducting therefrom the amounts for advance payments and retention. The Procuring Entity shall pay the Contractor the amounts certified by the Procuring Entity's Representative within twenty eight (28) days from the date each certificate was issued. No payment of interest for delayed payments and adjustments shall be made by the Procuring Entity.
- 40.4. The first progress payment may be paid by the Procuring Entity to the Contractor provided that at least twenty percent (20%) of the work has been accomplished as certified by the Procuring Entity's Representative.
- 40.5. Items of the Works for which a price of "0" (zero) has been entered will not be paid for by the Procuring Entity and shall be deemed covered by other rates and prices in the Contract.

#### **41. Payment Certificates**

- 41.1. The Contractor shall submit to the Procuring Entity's Representative monthly statements of the estimated value of the work executed less the cumulative amount certified previously.
- 41.2. The Procuring Entity's Representative shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
- 41.3. The value of Work executed shall:
  - (a) be determined by the Procuring Entity's Representative;
  - (b) comprise the value of the quantities of the items in the Bill of Quantities completed; and
  - (c) include the valuations of approved variations.
- 41.4. The Procuring Entity's Representative may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

## **42. Retention**

- 42.1. The Procuring Entity shall retain from each payment due to the Contractor an amount equal to a percentage thereof using the rate as specified in GCC Sub-Clause 42.2.
- 42.2. Progress payments are subject to retention of ten percent (10%), referred to as the "retention money." Such retention shall be based on the total amount due to the Contractor prior to any deduction and shall be retained from every progress payment until fifty percent (50%) of the value of Works, as determined by the Procuring Entity, are completed. If, after fifty percent (50%) completion, the Work is satisfactorily done and on schedule, no additional retention shall be made; otherwise, the ten percent (10%) retention shall again be imposed using the rate specified therefor.
- 42.3. The total "retention money" shall be due for release upon final acceptance of the Works. The Contractor may, however, request the substitution of the retention money for each progress billing with irrevocable standby letters of credit from a commercial bank, bank guarantees or surety bonds callable on demand, of amounts equivalent to the retention money substituted for and acceptable to the Procuring Entity, provided that the project is on schedule and is satisfactorily undertaken. Otherwise, the ten (10%) percent retention shall be made. Said irrevocable standby letters of credit, bank guarantees and/or surety bonds, to be posted in favor of the Government shall be valid for a duration to be determined by the concerned implementing office/agency or Procuring Entity and will answer for the purpose for which the ten (10%) percent retention is intended, *i.e.*, to cover uncorrected discovered defects and third party liabilities.

- 42.4. On completion of the whole Works, the Contractor may substitute retention money with an “on demand” Bank guarantee in a form acceptable to the Procuring Entity.

### **43. Variation Orders**

- 43.1. Variation Orders may be issued by the Procuring Entity to cover any increase/decrease in quantities, including the introduction of new work items that are not included in the original contract or reclassification of work items that are either due to change of plans, design or alignment to suit actual field conditions resulting in disparity between the preconstruction plans used for purposes of bidding and the “as staked plans” or construction drawings prepared after a joint survey by the Contractor and the Procuring Entity after award of the contract, provided that the cumulative amount of the Variation Order does not exceed ten percent (10%) of the original project cost. The addition/deletion of Works should be within the general scope of the project as bid and awarded. The scope of works shall not be reduced so as to accommodate a positive Variation Order. A Variation Order may either be in the form of a Change Order or Extra Work Order.
- 43.2. A Change Order may be issued by the Procuring Entity to cover any increase/decrease in quantities of original Work items in the contract.
- 43.3. An Extra Work Order may be issued by the Procuring Entity to cover the introduction of new work necessary for the completion, improvement or protection of the project which were not included as items of Work in the original contract, such as, where there are subsurface or latent physical conditions at the site differing materially from those indicated in the contract, or where there are duly unknown physical conditions at the site of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the Work or character provided for in the contract.
- 43.4. Any cumulative Variation Order beyond ten percent (10%) shall be subject of another contract to be bid out if the works are separable from the original contract. In exceptional cases where it is urgently necessary to complete the original scope of work, the HoPE may authorize a positive Variation Order go beyond ten percent (10%) but not more than twenty percent (20%) of the original contract price, subject to the guidelines to be determined by the GPPB: *Provided, however,* That appropriate sanctions shall be imposed on the designer, consultant or official responsible for the original detailed engineering design which failed to consider the Variation Order beyond ten percent (10%).
- 43.5. In claiming for any Variation Order, the Contractor shall, within seven (7) calendar days after such work has been commenced or after the circumstances leading to such condition(s) leading to the extra cost, and within twenty-eight (28) calendar days deliver a written communication giving full and detailed particulars of any extra cost in order that it may be investigated at that time. Failure to provide either of such notices in the time stipulated shall constitute a waiver by the contractor for any claim. The preparation and submission of Variation Orders are as follows:

- (a) If the Procuring Entity's representative/Project Engineer believes that a Change Order or Extra Work Order should be issued, he shall prepare the proposed Order accompanied with the notices submitted by the Contractor, the plans therefore, his computations as to the quantities of the additional works involved per item indicating the specific stations where such works are needed, the date of his inspections and investigations thereon, and the log book thereof, and a detailed estimate of the unit cost of such items of work, together with his justifications for the need of such Change Order or Extra Work Order, and shall submit the same to the HoPE for approval.
- (b) The HoPE or his duly authorized representative, upon receipt of the proposed Change Order or Extra Work Order shall immediately instruct the appropriate technical staff or office of the Procuring Entity to conduct an on-the-spot investigation to verify the need for the Work to be prosecuted and to review the proposed plan, and prices of the work involved.
- (c) The technical staff or appropriate office of the Procuring Entity shall submit a report of their findings and recommendations, together with the supporting documents, to the Head of Procuring Entity or his duly authorized representative for consideration.
- (d) The HoPE or his duly authorized representative, acting upon the recommendation of the technical staff or appropriate office, shall approve the Change Order or Extra Work Order after being satisfied that the same is justified, necessary, and in order.
- (e) The timeframe for the processing of Variation Orders from the preparation up to the approval by the Procuring Entity concerned shall not exceed thirty (30) calendar days.

#### **44. Contract Completion**

Once the project reaches an accomplishment of ninety five (95%) of the total contract amount, the Procuring Entity may create an inspectorate team to make preliminary inspection and submit a punch-list to the Contractor in preparation for the final turnover of the project. Said punch-list will contain, among others, the remaining Works, Work deficiencies for necessary corrections, and the specific duration/time to fully complete the project considering the approved remaining contract time. This, however, shall not preclude the claim of the Procuring Entity for liquidated damages.

#### **45. Suspension of Work**

- 45.1. The Procuring Entity shall have the authority to suspend the work wholly or partly by written order for such period as may be deemed necessary, due to *force majeure* or any fortuitous events or for failure on the part of the Contractor to correct bad conditions which are unsafe for workers or for the general public, to carry out valid orders given by the Procuring Entity or to perform any provisions of the contract, or due to adjustment of plans to suit field conditions as found necessary during construction. The Contractor shall immediately comply with such order to suspend the work wholly or partly.

- 45.2. The Contractor or its duly authorized representative shall have the right to suspend work operation on any or all projects/activities along the critical path of activities after fifteen (15) calendar days from date of receipt of written notice from the Contractor to the district engineer/regional director/consultant or equivalent official, as the case may be, due to the following:
- (a) There exist right-of-way problems which prohibit the Contractor from performing work in accordance with the approved construction schedule.
  - (b) Requisite construction plans which must be owner-furnished are not issued to the contractor precluding any work called for by such plans.
  - (c) Peace and order conditions make it extremely dangerous, if not possible, to work. However, this condition must be certified in writing by the Philippine National Police (PNP) station which has responsibility over the affected area and confirmed by the Department of Interior and Local Government (DILG) Regional Director.
  - (d) There is failure on the part of the Procuring Entity to deliver government-furnished materials and equipment as stipulated in the contract.
  - (e) Delay in the payment of Contractor's claim for progress billing beyond forty-five (45) calendar days from the time the Contractor's claim has been certified to by the procuring entity's authorized representative that the documents are complete unless there are justifiable reasons thereof which shall be communicated in writing to the Contractor.
- 45.3. In case of total suspension, or suspension of activities along the critical path, which is not due to any fault of the Contractor, the elapsed time between the effectivity of the order suspending operation and the order to resume work shall be allowed the Contractor by adjusting the contract time accordingly.

## **46. Payment on Termination**

- 46.1. If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Procuring Entity's Representative shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the SCC. Additional Liquidated Damages shall not apply. If the total amount due to the Procuring Entity exceeds any payment due to the Contractor, the difference shall be a debt payable to the Procuring Entity.
- 46.2. If the Contract is terminated for the Procuring Entity's convenience or because of a fundamental breach of Contract by the Procuring Entity, the Procuring Entity's Representative shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

- 46.3. The net balance due shall be paid or repaid within twenty eight (28) days from the notice of termination.
- 46.4. If the Contractor has terminated the Contract under **GCC** Clauses 17 or 18, the Procuring Entity shall promptly return the Performance Security to the Contractor.

#### **47. Extension of Contract Time**

- 47.1. Should the amount of additional work of any kind or other special circumstances of any kind whatsoever occur such as to fairly entitle the contractor to an extension of contract time, the Procuring Entity shall determine the amount of such extension; provided that the Procuring Entity is not bound to take into account any claim for an extension of time unless the Contractor has, prior to the expiration of the contract time and within thirty (30) calendar days after such work has been commenced or after the circumstances leading to such claim have arisen, delivered to the Procuring Entity notices in order that it could have investigated them at that time. Failure to provide such notice shall constitute a waiver by the Contractor of any claim. Upon receipt of full and detailed particulars, the Procuring Entity shall examine the facts and extent of the delay and shall extend the contract time completing the contract work when, in the Procuring Entity's opinion, the findings of facts justify an extension.
- 47.2. No extension of contract time shall be granted the Contractor due to (a) ordinary unfavorable weather conditions and (b) inexcusable failure or negligence of Contractor to provide the required equipment, supplies or materials.
- 47.3. Extension of contract time may be granted only when the affected activities fall within the critical path of the PERT/CPM network.
- 47.4. No extension of contract time shall be granted when the reason given to support the request for extension was already considered in the determination of the original contract time during the conduct of detailed engineering and in the preparation of the contract documents as agreed upon by the parties before contract perfection.
- 47.5. Extension of contract time shall be granted for rainy/unworkable days considered unfavorable for the prosecution of the works at the site, based on the actual conditions obtained at the site, in excess of the number of rainy/unworkable days pre-determined by the Procuring Entity in relation to the original contract time during the conduct of detailed engineering and in the preparation of the contract documents as agreed upon by the parties before contract perfection, and/or for equivalent period of delay due to major calamities such as exceptionally destructive typhoons, floods and earthquakes, and epidemics, and for causes such as non-delivery on time of materials, working drawings, or written information to be furnished by the Procuring Entity, non-acquisition of permit to enter private properties or non-execution of deed of sale or donation within the right-of-way resulting in complete paralyzation of construction activities, and other meritorious causes as

determined by the Procuring Entity's Representative and approved by the HoPE. Shortage of construction materials, general labor strikes, and peace and order problems that disrupt construction operations through no fault of the Contractor may be considered as additional grounds for extension of contract time provided they are publicly felt and certified by appropriate government agencies such as DTI, DOLE, DILG, and DND, among others. The written consent of bondsmen must be attached to any request of the Contractor for extension of contract time and submitted to the Procuring Entity for consideration and the validity of the Performance Security shall be correspondingly extended.

#### **48. Price Adjustment**

Except for extraordinary circumstances as determined by NEDA and approved by the GPPB, no price escalation shall be allowed. Nevertheless, in cases where the cost of the awarded contract is affected by any applicable new laws, ordinances, regulations, or other acts of the GoP, promulgated after the date of bid opening, a contract price adjustment shall be made or appropriate relief shall be applied on a no loss-no gain basis.

#### **49. Completion**

The Contractor shall request the Procuring Entity's Representative to issue a certificate of Completion of the Works, and the Procuring Entity's Representative will do so upon deciding that the work is completed.

#### **50. Taking Over**

The Procuring Entity shall take over the Site and the Works within seven (7) days from the date the Procuring Entity's Representative issues a certificate of Completion.

#### **51. Operating and Maintenance Manuals**

- 51.1. If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the **SCC**.
- 51.2. If the Contractor does not supply the Drawings and/or manuals by the dates stated in the **SCC**, or they do not receive the Procuring Entity's Representative's approval, the Procuring Entity's Representative shall withhold the amount stated in the **SCC** from payments due to the Contractor.

## *Section V. Special Conditions of Contract*

### **Special Conditions of Contract**

<b>GCC Clause</b>	
1.17	The Intended Completion Date is <b>December 2017</b>
1.22	The <b>Procuring Entity</b> is <i>Philippine Nuclear Research Institute</i>  <i>Address: Commonwealth Avenue, Diliman, Quezon City</i>
1.23	The Procuring Entity's Representatives are <b>Engr. Rosalino B. Rejas, Engr. Giuseppe Filam O. Dean and Editha A. Marcelo</b>
1.24	The Site is located at  <i>PNRI Compound, Commonwealth Avenue, Diliman, Quezon City.</i>
1.28	The Start Date shall be the date of receipt of the Notice to Proceed.
1.31	The Work consists of <i>Civil, Architectural and Electrical Works</i>
2.2	None
5.1	No further instructions.
6.5	The Contractor shall employ the following <b>Key Personnel:</b> <div style="display: flex; justify-content: space-between;"> <div> <p>(a) Registered Civil Engineer</p> <p>(b) Registered Electrical Engineer</p> </div> <div> <p>(c) Foreman</p> <p>(d) Skilled Workers with Appropriate Certification/ License ( Master Electrician, Carpenter Mason, Steelman Plumber, Welder and Tile Setter)</p> </div> </div> <p><i>Note: Civil Engineer and Foreman is required to be present on site throughout the duration of the contract.</i></p>
7.4(c)	The Performance Security shall remain valid until issuance of the final Certificate of Completion.
7.7	No further instructions.
8.1	The Contractor cannot subcontract more than Fifty Percent (50%) of the value of works and shall be limited to the conditions stated in the BDS.
10	No further instructions.
12.3	No further instructions.

12.5	<p>Warranty:</p> <p>The warranty against Structural Defects and Failures shall be cover for Fifteen (15) years from final acceptance, except those occasioned by force majeure.</p>
13	<p>If the Contractor is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.</p>
18.3(h)(i)	<p>No further instructions.</p>
21.2	<p>The Arbiter is: <i>Construction Industry Arbitration Commission</i></p>
29.1	<p>Dayworks are applicable at the rate shown in the Contractor's original Bid.</p>
31.1	<p>The Contractor shall submit the Program of Work to the Procuring Entity's Representative in accordance with the end-user's proposal within <b>five (5) days</b> of delivery of the Notice of Award. The Contractor shall provide appropriate PPE for workers.</p>
31.3	<p>The period between Program of Work updates is <i>ten (10) days</i>.</p> <p>The amount to be withheld for late submission of an updated Program of Work is <i>P 20,000.00</i>.</p>
34.3	<p>The Funding Source is the <i>Government of the Philippines</i>.</p>
39.1	<p>The amount of the advance payment/mobilization is <i>15% percentage of the Contract Price</i></p>
40.1	<p>No further instructions.</p>
51.1	<p>After completion of work, the Contractor shall furnish the Procuring Entity, at its own expense, one (1) set original copy and five (5) sets Blue Print Plan of 20" x 30" As-built Drawings signed by a registered Civil Engineer. Format of As-built Drawing is attached in Section VII. Drawings. The date by which "as built" drawings are required is December 2017.</p>
51.2	<p>The Final Payment shall be withheld for failing to produce "as built" drawings by the date required.</p>

# ***Section VI. Scope of Works and Specifications***

## **SCOPE OF WORKS**

### **A. Preliminary Works**

1. Site Acquisition and Clearing.
2. Provision for Survey layout & Chalk line
3. Temporary water line & power installation including consumption.
4. Personal Protective equipment (PPE's)
5. Temporary facilities & Board Ups
6. As-built plans including manual & maintenance documents
7. Provision of temporary fence (GI Sheet) around the Construction Site

### **B. Earthworks**

1. Excavation works for the reinforced concrete foundation.
2. Gravel bed laying (75mm thk.) prior to concrete blinding of foundations.
3. Backfilling and compaction of excavated areas.
4. Application of Soil Poisoning - Subterranean termite control.

### **C. Concreting Works**

1. Fabrication and installation of reinforcing bars for footing, footing tie beam, slab on fill, suspended slab, floor beams, roof beams, and reinforced concrete columns.
2. Fabrication and installation of formworks prior to concrete pouring application.
3. Application of concrete ad-mixture and agents.
4. Pouring of cast-in-place concrete.

### **D. Steel Structure Erection**

1. Fabrication and installation of scaffolding materials prior to steel erection.
2. Provision for Health, Safety and Environmental requirements for working at heights.

### **E. Construction / Installation of Masonry walls, Ceiling and Glass partition.**

1. Preparation of concreting works for masonry walls.
2. Supply and installation of 6" CHB - masonry walls
3. Supply and installation of 4" CHB - masonry walls
5. Supply and assembly of ceiling framing prior to gypsum board installation.
6. Supply and installation of gypsum board - ceiling panels.
7. Supply and assembly of ceiling framing prior to perforated ceiling panels installation.
8. Supply and installation of perforated sheets - ceiling panels.

### **F. Doors, Windows and Louver panel Installation**

1. Supply and installation of Door including Jambs and accessories.
2. Supply and installation of Windows including frames and accessories.

3. Supply and installation of Louver panel including frames and accessories.

#### **G. Specialty Works**

1. Supply and installation of stainless steel handrail at entry porch to include accessories.
2. Provision for stair handrail, post, glass panelling and accessories at staircase.
3. Supply and installation of modular partition for toilets including frames and accessories.
4. Supply and installation of facial mirrors for toilets to include accessories.
5. Supply and installation of granite counter top for toilets to include accessories.
6. Supply and installation of modular cabinets for toilets to include accessories.

#### **H. Thermal and Moisture Protection**

1. Asphalt torch applied Waterproofing membrane at all toilet areas.
2. Concrete floor topping for membrane protection.

#### **I. Architectural Finishes**

1. Application of rubbed concrete for the exposed concrete soffit (ceiling etc...)
2. Laying of Ordinary Granite Floor Tiles.
3. Laying of Ceramic floor and wall tiles at toilet area.
4. Laying of Vinyl flooring.
5. Application of Stamped concrete at walk-way around the building.
6. Concrete plastering of all masonry walls and exposed un-even concrete.
7. Application of plaster compound for the interior side of masonry walls.
8. Laying of Natural granite slab floor finish at stair thread - porch area.

#### **J. Painting Works**

1. Application of concrete Neutralizer for the newly plastered masonry walls.
2. Painting preparation - application of putty compound prior to painting application.
3. Application of base coating - primer.
4. Application of finishing paint - first coating.
5. Application of finishing paint - second coating.

#### **K. Sanitary, Plumbing and Storm Drainage**

1. Provision for Plumbing rough-ins and fixtures
2. Provision for Sanitary rough-ins and fixtures
3. Provision for Storm drainage system.
4. Pressure test, leak test and flow test for all the piping installed.

#### **L. Electrical Works**

1. Provision of electrical power supply requirements (inside and outside facilities).
2. Supply and Installation of all lighting requirements - fixtures and roughing-ins.
3. Provision for Lightning Protection System.
4. Provision for Panel Boards and Control Panels.
5. Testing and commissioning procedures.

#### **M. Mechanical Works**

1. Provision for Air-conditioning units - wall mounted to include with condensing equipment.
2. Supply and installation of air-conditioning roughing-ins - condensing pipes and wirings.
3. Supply and installation of mounting pads/steel framing of A/C units and equipment.
4. Testing and commissioning procedures.

#### **N. Cleaning and Clearing of site.**

### **SPECIFICATIONS FOR GENERAL CONSTRUCTION:**

#### **I. INTENT AND APPLICATION OF THE PROVISIONS OF THIS SECTION**

- A. The Scope of Work covered within these Specifications is the complete construction of the Project: Establishment Two-Storey of Radiation Protection Services Facility, Located at PNRI, Department of Science and Technology, Commonwealth avenue, Diliman, Quezon City, Philippines.
- B. This section is prepared in a concise manner, the intention of which is to save time and effort in locating important contents within these Specifications.
- C. Execution of this Section shall be coordinated and harmonized to each corresponding elaborated section of these same specifications.
- D. In case discrepancies exist between this Section and its corresponding elaborated sections, notify the Procuring Entity immediately for clarification; their decision shall be final.
- E. The Contractor shall bear the responsibility of checking all the numbers and units as indicated in the Bill of Quantities. It is understood that the Contractor shall supply and install the required units in accordance with the Plans and the Specifications.
- F. In their bid proposal, the bidders may propose materials or equipment or makes other than those specified in the BOQ and/or Specifications, provided they are of equivalent specifications and functionalities.
- G. During project implementation, the winning bidder/contractor may propose substitution of materials or equipment or makes other than those specified in the Contract documents shall be subject to the approval of the Procuring Entity for the following reasons only:
  1. That the materials or equipment proposed for substitution is equal or superior to the materials or equipment specified in construction efficiency and utility provided that any and all costs relative thereof shall be shouldered by the Contractor.
  2. Or that the materials or equipment specified cannot be delivered to the job site on time to complete the work of the other Contractors due to conditions beyond the control of the Contractor.

3. In case of a price difference, the Procuring Entity shall receive all benefits of the difference in cost involved in any substitution and the Contract shall be altered by Change Order to credit the Procuring Entity with any savings so obtained.

H. To receive consideration, request(s) for substitution shall be accompanied by documentary proof of equality or difference in price and delivery, if any, in the form of certified quotations and guaranteed date of delivery from suppliers of either the proposed substituted materials or equipment.

## **II. GENERAL CONDITIONS OF PLANS AND SPECIFICATIONS**

The execution of this Specification, Plans and other related Contract Documents shall be subjected to the rules and regulations as provided in the General Conditions of the Contract. The Plans and specifications shall be interpreted by the Procuring Entity and or his/her representative. The Contractor is enjoined to confer with the Procuring Entity on items for clarification before submitting his bid. No excuses shall be entertained for misinterpretation of the Plans and specifications after the award of contract. All work as deemed required by the Procuring Entity shall be carried out properly by the Contractor.

- A. The Contractor shall consult the Procuring Entity on portion of the work not mentioned in the Specification and not illustrated on the Plans. He shall not work without proper instruction or detailed plans approved by the Procuring Entity, otherwise he shall be responsible for the in acceptance of the work done without details. In such case, the Contractor shall make good the work at his own expense.
- B. No alteration or addition shall be allowed without the consent and proper documentation approved by the Procuring Entity, even such change is ordered by the Procuring Entity. The Contractor shall bring the case to the Procuring Entity. Request for approval of such changes, alteration, deviation of work shall not be done without the consent of the Procuring Entity. Changes may be presented to the Procuring Entity in the form of shop drawings.

TWO (2) SET of clean Plans and specification shall always be kept at the jobsite to be available to the Procuring Entity or their representative upon his request during the construction.

## **DIVISION 1: GENERAL REQUIREMENTS**

### **1.0 Processing and Securing of Permits and Insurance**

The contractor shall be responsible for securing all necessary permits related to the project, which shall include but not limited to building permits, occupancy permit, etc.), Contractor's All Risk Insurance & Third Party Liability and Workman's Compensation Insurance (CARI), and other insurances required by the Local Government Unit (LGU) and PNRI, among others, including payment of assessed fees as may be required by the LGU, PNRI and/or Regulating

Agencies before the implementation of the project. All related documents shall be submitted to the PNRI for proper documentation.

## **DIVISION 2: SCOPE OF WORK**

- A. The Contractor shall conduct thorough inspection of the existing job site conditions.
- B. The scope of work shall include all additions necessary in order to implement the whole set of approved Plans, Working Drawings and Specifications.
- C. The Contractor shall secure and do all the legwork necessary for all pertinent permits needed for the Procuring Entity to occupy and use the building,
- D. The Contractor shall construct All Architectural, Structural, Electrical, Sanitary/ Plumbing, Mechanical/ Fire Protection works in accordance with the Plans and Specifications. All items shown on the Plans but not mentioned in the Specifications shall be included. Discrepancies shall be verified with the Procuring Entity.
- E. The Contractor shall have a surveyor to locate benchmarks. Shop drawings of stake out plan and actual reference marks shall be verified and approved by the Procuring Entity prior to any permanent construction. He shall refer to the Scope of Work and other Bid Documents for more extensive description of the work.
- F. The Contractor shall submit details and shop drawings, templates, and schedules required for the coordination of the work of the various trades. Drawings should include information on all working dimensions, arrangement and sectional views, connections and materials.
- G. Final Cleaning As Pre-requisite To Final Acceptance: Final cleaning of the work by a reputable building maintenance company shall be employed by the General Contractor prior to the Procuring Entity's final inspection for certification of final acceptance. Final Cleaning shall be applied on each surface or unit of work and shall be of condition expected for a first class building cleaning and maintenance program.
- H. The Contractor shall be responsible for the safety and safe working practices of its respective employees, servants and agents.
- I. The Procuring Entity may at any time without invalidating the Contract make changes by altering, adding to or deducting from the work as covered by the drawings, specifications, and general scope in written instructions. Provisions under General Conditions of the contract cover such circumstances.

### **DIVISION 3: SITE WORK**

#### **A. VISIT AND ACCEPT SITE, AS IS. The following works shall be included:**

1. Site Clearing: Protection and/or removal of existing structures with the approval from the Procuring Entity and or lessor.
2. Removal of improvements above and below grade (if any) necessary to permit construction and other work as indicated. The Procuring Entity and Lessor must be consulted prior to any demolition. Coordination with PNRI Maintenance / Facilities Group & proper investigation is to be conducted to avoid damage on existing utilities. Rubbish shall be legally and properly disposed of. Other items for relocation / demolition will be discussed in the Pre-Bid Conference.

#### **B. SITE SAFETY REQUIREMENTS:**

1. The Contractor shall, maintain a temporary board – up, security for the proper execution of site up-keeping. Such board-up shall be built where necessary and required by PNRI for its full length except for such openings as may be necessary for the proper execution of the work, in such case, openings shall be provided with doors which shall be kept closed at all times except in actual use. Which shall be made of painted 12mm thick GYPSUM BOARD on METAL STUDS FRAMING with complete accessories, structurally stable.

#### **C. TEMPORARY SITE FACILITIES**

1. Temporary Facilities: The contractor shall provide an office for the following: Construction site office: complete Resident Architect's / Engineers office for business related to the supervision of the project.
2. Other Temporary Provisions:
  - x The General Contractor shall provide all temporary lighting, power, water supply and all necessary facilities sufficient enough for the simultaneous use of all possible fields of work to complete the project.
  - x The General Contractor shall provide the necessary number of warehousemen to ensure security of construction site.
  - x The General Contractor shall provide at necessary number of units of Fire extinguishers.
  - x The General Contractor shall provide Billboards for precautions for Public Safety.
  - x Other provisions as required by the National Building Code and PNRI.
  - x All others required as discussed in the Pre-Bid Conference or as issued Supplemental Bid Bulletins

## **D. STORAGE AND FILING OF MATERIALS**

1. Delivery: General Contractor shall ensure that materials are properly turned over and delivered on site in good quality and condition. A time and delivery record shall be available.
2. Storage: General Contractor shall designate and/or allot a space to sub-contractors for storage of their materials and for erection of their sheds and tool houses (if necessary). Materials shall be arranged properly and accordingly in terms of sizes, quality, quantity, category and time of use.
3. Warehouse shall be maintained properly by a designated person of the General Contractor.
4. All cement, lime and other materials affected by moisture shall be stored on platforms and protected from weather. Materials shall be stored as to insure the preservation of their quality and fitness for their work. Stored materials shall be located so as to facilitate prompt inspection.
5. Should it be necessary at any time to move materials, sheds or storage platforms, the Contractor shall do so at his own expense.

## **DIVISION 4: EARTHWORKS**

### **1. EXCAVATION**

- a. General - Ditches, swales and slopes shall be cut accurately to elevations and grades indicated. All roots, stumps and other foreign matters on the sides or bottom of ditches, swales and slopes shall be removed. Care shall be taken not to cut the ditches, swales and slopes below the grades indicated. Any excessive ditch, swale and slope excavation or cutting shall be backfilled to grade with approved excavated materials and shall be thoroughly compacted. The contractor shall maintain all ditches and swales free from detrimental quantities of leaves, sticks, twigs, and other debris until final acceptance of work.
- b. Structural Excavation - Shall be to the depths indicated, reckoned either from the natural ground line or the finishes grade line, whichever is lower. The indicated depth is the minimum requirements for excavation. However, if the soil bearing pressure is not attained at the indicated depths, the contractor shall extend the excavation until the required soil bearing pressure is obtained. All excavations extended down to 0.60 meter or two (2) feet or less from the indicated depths shall be at the contractor's expense. Excavation in excess of the 0.6meter or two (2) limit mentions above shall be considered as extra work, whereby an equitable adjustment in the contract price shall be made. No extra excavations shall be done without the written approval of the Engineer. In no case footing rest on fill.

All structural excavations shall extend to a sufficient distance from wall and footings to allow for the proper erection and dismantling of forms, installation of service lines and for inspection. In case suitable bearing materials is encountered at elevations

other than those specified or shown on the drawings, the Engineer at his discretion may authorize in written the excavations above or below those indicated on the drawings. All excavation shall be inspected and approved by the Engineer. Before pouring concrete, laying underground services or placing backfill materials. The Contractor shall control the grading in the vicinity of all excavated areas to prevent surface drainage from running into excavation. Water which accumulates in excavated areas shall be removed by pumping or by other approved methods, before filling or pouring concrete.

## 2. TOPSOIL

Materials from excavations suitable for topsoil shall be deposited in piles separate from other excavated materials and shall be protected and maintain until needed. Piles of topsoil shall be located so that the material can be used readily for the finished surface grading. When for finish surface grading, topsoil shall be spread uniformly over the areas designated to receive it.

## 3. BACKFILLING

- a. After the forms are removed, all trash, wood chips and other debris shall be removed from areas to be backfilled. Backfill materials shall consist of approved site excavated materials and shall be free from brush, roots and other undesirable materials which would be detrimental to compaction.
- b. Backfill shall not be placed against walls or other vertical surface until they have been inspected. Only then shall backfilling be authorized.

## 4. PLACING AND COMPACTING FILL

1. Common Fill - shall be of approved materials free from roots and stumps, earth fill shall be used if site excavated materials are rejected or insufficient.
2. Select fill - shall be placed where specified and indicated in the plan, and shall consist of gravel, crushed gravel, crushed rock or a combination thereof. The material shall be free from adobe, vegetable matter or other undesirable matters.

## **DIVISION 5: TERMITE CONTROL/SOIL POISONING**

Prior to pouring of concrete floor slab for slabs on ground and on fill and prior to backfilling around outside perimeter, along interior foundation walls, around critical areas and wooden structures, soil treatment and termite proofing respectively shall be applied as hereinafter specified.

Application rates may be determined by the use of a Power Sprayer with calibrated flow meter attachment whenever possible or by a "slow count" to provide the required rate and uniformity of application or other approved method by the Engineers.

## MATERIALS

(Chemicals and Concentrations) Apply to soil areas to be treated, one of the following chemicals shall be used at not less than the designated concentration.

- |    |            |      |                                 |       |
|----|------------|------|---------------------------------|-------|
| A. | Aldrin     | 0.5% | applied in water emulsion ratio | 1: 36 |
| B. | Dieldrin   | 0.5% | applied in water emulsion ratio | 1: 36 |
| C. | Chlordane  | 1.0% | applied in water emulsion ratio | 1: 95 |
| D. | Heptachlor | 0.5% | applied in water emulsion ratio | 1: 95 |

## APPLICATIONS

Apply areas of soil and wooden structure to be treated in accordance with precautions prescribed by the manufacturer and in the minimum quantities.

For Slab-On-Ground Construction

Over-all treatment - Apply over treatment entire surface of floor slab including porch floors and entrance platforms and steps at a rate of 6 ltrs per square meter. In critical area around opening for utility pipes conduits, ducts and floor drain, apply at a rate of 12 liters of emulsion per linear meter.

Along the exterior perimeter of the slab next to the perimeter footing and under expansion joints, apply 8 liters of emulsion per 1-1/2 linear meters strip of 1/3 meter wide in shallow trench.

## DIVISION 6: FORMS AND SCAFFOLDINGS

- a. General Requirements - The Contractor shall provide forms that will produced correctly aligned concrete. The centering shall be true and rigid, and thoroughly braced both horizontally and diagonally. The forms shall be sufficiently strong to carry the dead weight of the concrete as a liquid without deflection, and tight enough to prevent leakage of mortar.

All floor and beam centering shall be crowned not less than 1/4" in all directions for every 16-foot span. Columns shall be plumb and true and thoroughly cross-braced to keep them so. All exposed joist edges, and external corners shall be chamfered.

- b. Material -For exposed interior and exterior concrete surface, plywood thoroughly cleared and tied together with approved corrosion resistant devices, shall be used.

## PROPER USE OF SCAFFOLDING

Once scaffolding satisfies OSHA requirements, a worker must be able to work on it properly. For climbing, workers should face the rungs, use both hands and avoid carrying materials as they climb, according to Safety. The safety guidelines for moving scaffolding, also called rolling towers, are much more stringent. Workers should not be on rolling towers while they are being moved, and they should not climb rolling towers until the tower is locked in place. Using a plank to form a bridge between two towers is also prohibited, and under all circumstances, a rolling tower should be used only on a level surface.

## **DIVISION 7: CONCRETING WORKS**

### **7.1. SCOPE**

The work includes furnishing all plants labor and materials, and performing all operations necessary in connection with all concrete works as shown on the drawings and as specified herein.

### **7.2. COMPOSITION AND STRENGTH**

Concrete shall be composed of Portland cement, fine aggregates, coarse aggregates and water.

Internal waterproofing admixture shall be added whenever; waterproofed concrete is called for in the plans or in these specifications.

Concrete mixture shall be designed to produce concrete having a 28-day compressive strengths as shown hereinafter.

The minimum 28 days compressive cylinder strength of concrete as follows:

For suspended slabs, flat slabs, beams, columns, girders	$f'_c$ : 21 MPA (3,000Psi)
For footings	$f'_c$ : 21 MPA (3,000Psi)
For parapet walls	$f'_c$ : 21 MPA (3,000Psi)
For partitions, curves walls and other structural elements	$f'_c$ : 21 MPA (3,000Psi)
For retaining walls	$f'_c$ : 21 MPA (3,000Psi)
For slab on-fill/grade	$f'_c$ : 17 MPA (2,500Psi)

### **7.3. MATERIALS**

#### **a. Cement**

Shall be Portland cement conforming to the current Standard Specifications and Tests for Portland Cement of the American Society for Testing Materials.

Special cement may be used subject to the approval of the Engineer, provided it meets the requirements for Portland cement in regard to strength, soundness and setting time.

#### **b. Steel reinforcement bars**

Steel shall be new billet stock of structural grade conforming to ASTM A-15 and deformed to conform to ASTM A 305.

1. Reinforcing Steel bars shall be of the yield grade in the structural drawings and in the job specifications sheet, and conforming to ASTM A615, "Specifications for deformed billet steel bars for Concrete Reinforcement. Structural Grade of Deformed Bars for column (Grade 40) 25mm to 12mm.
2. All structural steel work shall conform to the applicable provisions of the following Codes and standards, except as modified by the requirements specified herein and/or the details on the drawings. Shop drawings are required for all structural steel and shall be submitted to the PNRI for approval.

- a. International Conference of Building Officials; "Union Building Code,

- b. Volume I, Chapter 27, “Steel and Iron”.
  - c. American Institute of Steel Construction; “Manual of Steel Construction”; 40-B
  - d. Steel for Building”
  - e. American Welding Society; Code of Arc and Gas Welding in Building
  - f. Construction, AWS Standard Code D.1.0
  - g. American Society for Testing and Materials
  - h. Steel Structure Painting
  - i. Codes and Standards of Local Regulatory Agencies having jurisdiction.
3. Certified test mill reports or certified reports of tests made by the fabrication or a testing laboratory in accordance with ASTM A615 and the governing specifications, shall constitute evidence of conformity with one of the above specifications. Additionally, the stating that the structural steel furnished meets the requirements of the grade.

c. Fine Aggregates

1. Composition- Fine aggregates shall consists of sand, stone screenings or other inert materials with similar characteristics, or a combination thereof, having clean, hard, strong durable, uncoated grain and free from injurious amount of dusts, lumps, soft or flaky particles, shale, alkali, organic matter, loam or other deleterious substances.
2. Grading -Fine aggregates shall be graded from coarse to fine within the limits shown in the following table.

Sieve Designation U.S. Std. Square Mesh	Total Passing % by Weight
3/8	10
4	95-100
8	80-100
16	50-100
30	26-60
50	10-30
100	2-10

3. Fineness Modulus - The fine aggregate shall have a fineness modulus not less than 2.4 nor more than 3.2. Fineness modulus shall not vary than plus or minus 0.20 from that of the approved sample.
4. Organic Impurities and Deleterious Substances - Any aggregate having more that 5% by weight of clay or more than 1% by weight of cool and lignite shall be rejected.
5. Soundness -For exposed concrete, the aggregate shall be subject to the accelerated test as specified in ASTM Designation 088.

#### d. Coarse Aggregate

1. Composition - Coarse aggregate shall consists of crushed stone, gravel or other approved materials of similar characteristics or a combination thereof having clean, hard, strong, durable uncoated particles free from injurious amounts of soft, friable, this elongated or laminated pieces, alkali and organic or other deleterious matter.

2. Grading - Of various sizes of coarse aggregate shall be as follows:

Sieve Designation U.S. Std. Square Mesh	Total Passing % by Weight
1 1/2 inches	100
1 inch	90 - 100
3/4 inch	60 - 85
1/2 inch	25 - 60
3/8 inch	15 - 45
4"	0 - 10

3. Organic impurities and deleterious substances

The same rule as in fine aggregate shall be followed.

#### e. Water

Shall be clean and free from oil, acids, salts, alkali, organic matter or injurious substances. If the opinion of the Engineer, the water is of questionable quality, it shall be tested in accordance with ASHO T26 ph value 5.5 to 9.0.

### 7.4. STORAGE OF MATERIALS

#### a. Cement and Aggregates

Shall be stored in such a manner as to prevent deterioration or intrusion of foreign matter. Any materials which has been damaged shall not be used for concrete.

b. Reinforcing Steel - Shall be stored under cover and protected from rusting, oil, grease or distortion. Only steel needed for immediate use shall be removed from storage.

### 7.5. CONCRETE PROPORTION AND CONSISTENCIES

#### a. Proportion

The class of concrete shall be as required by the project drawings. concrete shall be proportioned either by weighing or by volume, whichever is approved by the Engineer, and shall conform to the table below.

All Concrete work shall be done in accordance with standard specifications for concrete materials and the following proportions shall be use

Proportion of Concrete Foundation.

Class "A" (1:2:4) -for footing foundation, second floor slab, columns, girders, beams, toilet slab.

Class "B" (1:2:1/2:5) -for wall footings.

Class "C" (1:3:6) -for all slabs on fill

Joints and plastering mortar shall be composed of one part Portland cement and four parts fine sand. Clean water shall be added to mixture to form a workable paste. Plastering shall be applied in one coat to a thickness of 1/4" worked to a smooth finish. Surface shall be wetted before plastering is applied and shall kept wet for at least 72 hours. All interior floors shall be cement finished when not specified otherwise.

b. Changes in Proportion - The estimated 28-day compressive strengths indicated will verified during progress of the work by testing standard cylinders of samples taken at the mixer at anyone day. Tests will be made at the end of 7 and 28 days by the government at the expense of the contractor. The making, during the testing of the specimens will be in accordance with ASTM Designation 0192. and C93. When tests indicate that change in the mix proportions is necessary, such change shall be made as directed.

c. Consistency - of the concrete shall be such that it will pass the slump test for the specified compressive strength.

## 7.6. MIXING CONCRETE

### A. General Requirements

Concrete shall be machine-mixed in standard type of batch mixer with a drum speed of 200-255 peripheral feet per minute. Mixing shall begin within 30 minutes after the cement has been added to the aggregates. The time of mixing all cement and aggregates are in the mixer drum not be less than one (1) minute for mixer having a capacity of one cubic yard or less and shall be increased 15 seconds for each additional cubic yard or fraction thereof. All mixing time has elapsed.

Re tempered concrete shall not be allowed. The content shall be completely discharged before the mixer is recharged.

The time elapsing between the introduction of the mixing water to the cement and aggregates or the cement to the aggregates and placing the concrete in final position in the form shall not exceed forty five (45 minutes)

### a. Ready Mixed Concrete

For the purposed of this specification ready mixed concrete is concrete produced by a commercial establishment and delivered to the site in a plastic state. Ready- mixed concrete may be used provided that (a) the plant has sufficient capacity and transportation equipment to deliver the concrete at the desire and (b) the plant meets the requirements specified herein before in Section 6-06. The interval between for placing concrete shall not exceed 30 min.

## 7.7 CONCRETE COMPRESSIVE CYLINDER STRENGTH

Unless otherwise indicated in plans, the minimum 2days compressive cylinder strength of concrete as follows:

For suspended slabs, flat slabs, beams & columns	f'c: 21MPA (3,000Psi)
For footings and elevators shaft	f'c: 21MPA (3,000Psi)
For parapet walls	f'c: 21MPA (3,000Psi)
For partitions, curves walls and other structural elements	f'c: 21MPA (3,000Psi)
For retaining walls	f'c: 21MPA (3,000Psi)
For slab on-fill/grade	f'c: 17MPA (2,500Psi)
For lean concrete	f'c; 17MPA (2,500Psi)

## 7.8. PLACING REINFORCEMENT

- a. General Requirement - The contractor shall furnish and place all reinforcing materials as indicated on the drawings, together with all the necessary ties, chair, spacers, supports and other devices necessary to install and secure the reinforcements properly. All reinforcements shall be free from loose flaky rust, scale, oil and structural defects, and shall be so maintained on the job.

Reinforcements which has bends not shown on the drawings or is reduced in section rusting shall not be used.

- b. Placing - All steel shall be rigidly laid in place with approved galvanized metal devices in such a manner that all steel will support the weight of the workmen without displacement. On exterior exposed concrete, no metal tie chair or spacer shall remain within 1 1/2" of the finished surfaces.

The minimum center to center distance between parallel bars shall be two and half (2 1/2) times the diameter of round bars. Where reinforcements in beams or girders is placed in two or more layers, the clear distance between layers shall not be less than 1 inch, and the bars in the upper layers shall be placed directly above those in the bottom layers.

- c. Splices - in - Slabs, beam and girders, splices of reinforcement at points of maximum stress shall be avoided wherever possible. Such splices where used shall be welded, lapped or otherwise fully developed, but in any case, shall transfer the entire stress from bar without exceeding the allowable bond and shear stresses. The minimum overlap splice shall be 24 bar diameter, but not less than 12 in tee bars.

## 7.9. CONVEYING AND PLACING CONCRETE

- a. Conveying -Concrete shall be conveyed from the mixer to the place of final deposit by methods which will prevent the separation or loss of material. At any point in conveying, the free vertical drop of the concrete shall not exceed three (3) feet. Chutting will not be permitted except where the concrete is deposited into a hopper before it is placed in the forms.

Equipment for chutting, pumping or pneumatically conveying concrete shall be of such size and design as to insure a practically continuous flow of concrete as the delivery and without separation of materials.

- b. Placing - Concrete shall not be placed until the forms and reinforcement have been inspected by the Engineer. Forms shall be cleaned of dirt, construction debris and water.

Sub-grade shall be wetted before concrete is placed. Water shall be removed from excavations before concrete is deposited.

Concrete shall be deposited as nearly as practicable in its final position to avoid segregation due to re-handling or flowing. The concreting shall be carried on at such a rate that the concrete is at all times plastic and flows readily into the space between the bars.

Once concreting is started, it shall be carried on in continuous operation until the placing of the section or panel is completed. The surface shall be generally level. Concrete shall be deposited in approximately horizontal layers 12 to 20 inches deep in a manner to preclude the formation of cold joints between successive layers. Maximum length of wall pours shall be 30 feet.

On the bottom of slabs, beams and girders where the congestion of steel near the form makes placing difficult, batches of mortar containing the same proportion of cement to sand as used in the concrete, shall be deposited in the forms to a depth of at least one inch. Slabs and beams stems shall be placed in one operation.

- c. Vibration -Concrete shall be vibrated with high frequency, internal, mechanical vibrator supplemental by hand spacing, to maximum substance, without segregation and adjacent to forms and reinforcement shall not be used to transport the concrete in the forms. Vibration shall be discontinued when the concrete has been compacted thoroughly and ceases to decrease in volume.

#### 7.10. PIPES AND CONDUITS EMBEDDED IN CONCRETE

No conduits or pipes shall be embedded in concrete except expressly permitted by the Engineer.

Electric conduits and other pipes whose embedment is allowed shall not with their fittings, displace that concrete in that concrete in a column on which stress is calculated or which is required for fire protection to an extent greater than 4% of the area of the cross section. Sleeves or other pipes passing through floors, walls, or beams shall not be of such size or be in such location as to unduly impair the strength of the construction such sleeves or pipes may be considered as replacing structurally the displaced concrete, provided they are not exposed to rusting or other deterioration, are of uncoated iron or steel not thinner than standard steel pipe, have a nominal inside diameter not over 2" and are spaced not less than 3 diameters on centers. Except when plans of conduits and pipes are approved by the structural engineer, embedded pipes or conduits, other than those merely passing through, shall not be larger in outside diameter than 1/3 the thickness of the slab, wall or beam in which they are embedded, nor shall they be spaced closer than 3 diameter on center nor so located as to unduly impair the strength of the construction. Circular uncoated or galvanized electric conduit of iron or steel may be considered as replacing the displaced concrete.

### 7.11. PROTECTION AND CURING

After finishing, curing shall be done by keeping concrete moist for seven (7) days after placing. Concrete shall be protected adequately from injurious action of sun, rain, slow flowing water and mechanical injury, and shall not be allowed to dry out from the time it is placed until the expiration of the minimum curing period specified. Curing operation shall begin as soon as the concrete has attained initial set.

### 7.12. REMOVAL OF FORMS

Forms and shoring shall be removed in such a manner as to insure the complete safety of the structure and shall remain in place for minimum period of time in accordance with the following schedule:

Parts Structure	Classification of parts	Time Required
Footings:	a) Isolated b) Cantilever c) Slab	a) 1 day(24 Hours) b) 5 days c) 5 days
	a) Massive-30 cm or more b) Thin - less  c) Cantilever Buttress & counter forts.	a) up to 2m. high $\pm$ day DGGGD\RUHYHUDGG\PRIKHLJKW b) up to 2m. high - 2 days DGGGD\IRUHD\FKDGG\PEXWIRU a of 28 days. c) same as b.
Columns	a) H/d up to 4 b) H/d from 4 to 15	a) 2 days b) add to the above no. 1 day for every DGG\PHWHUEXWIRUDPD[RIGD\
Slabs	a) 3 - ft.	a) 3 ft. span - 5 days. Add 1/2 day for HYHU\ IW DGG\ VSDQ RU D IUDFW thereof. b) 7 ft span - 7 days. Add 1 day for every IW DGG\ VSDQ EXW IRU D PD[ RI days.
Beams and girdles	a) sides	a) 3 days
	b) bottom	b) up to 14 ft. - 14 days. Add 1/2 day for HYHU\IW DGG\ VSDQ EXWIRUDPD[R 28 days.

The requirements of the table may be waived with the approval of the Engineer provided that the results of suitable control tests show that the concrete member has attained such sufficient strength as to capable of supporting safely its weight and actual loads that may come thereon.

### 7.13. TEST ON CONCRETE

The Engineer may require a reasonable number of tests to be made during the progress of the work. Specimens shall be stored in accordance with provisions of the standard Method of Making and Storing Compression Tests Specimens of Concrete in the Field, and Tests in accordance with the Standard Method of Making Compression Test of Concrete of the ASTM. The Contractor shall provide the samples to be taken at the place of deposit and as specified by the Engineer.

A minimum of three (3) test cylinders shall be taken for each 12 cubic meters of concrete or each pouring day whichever is the least amount. Testing of specimens for compressive strength shall be in accordance with ASTM C39.

Two (2) cylinders shall be tested at 28 days for specification compliance and one (1) shall be tested at 7 days for information. The acceptance of test results shall be in average of the strength of the two cylinders tested at 28 days and shall be equal to or greater than the required compressive cylinder strength.

Slump tests shall be undertaken at the beginning of each concrete batch placement or six (6) cubic meters whichever is the lesser volume.

Test on yield be made in accordance with ASTM C138.

Reinforcements shall be tagged and temporarily stored upon arrival at the site and shall not be used until the following tests and had been performed and the results evaluated by the Engineer:

- Tension Tests such as tensile, yield and elongation
- Bend Tests
- Deformation Tests
- Variation in Weight

The cost of the testing of concrete specimens shall be as agreed upon by Engineer and Contractor. Testing shall be conducted at a laboratory acceptable to the Using Agency. Testing shall be performed only in the presence of Engineer's representative.

Should the tests fail to give the required strength, the Consulting Engineer shall have the right to order a change in the proportion or in the procedure of curing the concrete. Concrete that fails any of the required tests shall be rejected, and the Contractor shall be required to chip off the structural element determined to have failed in strength and to replace the same at no extra cost to the Using Agency.

In the case of failure to meet the specified strength, the Contractor may, at his own expense, obtain concrete core samples from poured concrete and the compressive strength of such core samples shall be taken as conclusive evidence of its strength and integrity provided the curing will not impair the safety of the structure and can be satisfactorily replaced.

## **DIVISION 4: MASONRY**

### **A. CONCRETE MASONRY UNITS**

1. Masonry Units (CHB): 100mm thick for all interior walls unless otherwise indicated. Use 400 psi for non-load bearing blocks and 700 psi for load bearing blocks where required.
  - a. Supplier: Allied Concrete, Rock built or Jack built
  - b. Where full height walls are constructed with concrete hollow blocks, these shall extend up to the bottom of beam or slab unless otherwise indicated on plans. Provide stiffener columns & lintel beams as specified in the structural drawings or as specified or as deemed required to assure a stabilized wall due to height & other considerations.
2. Sand: S-1, washed, clean and greenish in color.
3. Mortar: One part "Portland" cement and two parts sand and water but not more than three parts sand and water.
4. Plaster bond: N and H Plaster bond - Apply to all wall areas prior to plastering.

## **DIVISION 5: METAL**

### **A. Stainless Steel**

1. Stainless Steel Push Plate: Refer to Doors Schedule
2. Stainless Steel Handrail Tubing: ASTM A 269 Type 304 or Type 316.

Fabricate handrails in accordance to approved shop drawing and field dimensions using mitered and welded joints with bends where indicated on shop drawings. Grind and or dress exposed welds smooth and flush to corner or fillet without weakening rail connection.

### **B. LIGHT GALVANIZED STEEL FRAMING FOR GYPSUM DRYWALL, CEILING & FIBER CEMENT CEILING**

Light Galvanized Steel Framing Members shall be formed from cold-rolled steel with a minimum tensile strength of 50 ksi & a minimum yield point of 33 ksi. Light Galvanized Steel Framing Members shall be formed from cold-rolled steel having a minimum galvanized coating of 180 g/sq.m both sides and shall be lock forming quality. Should conform to the ASTM C645A Standard Specification for Nonstructural Steel Framing Members.

### **C. Structural Steel, Fabrication and Erection (for the Steel Canopy)**

All structural steel required for this structure shall conform to the "Standard Specifications for Structural Steel for Buildings" ASTM Designation A36. Shop connection shall be welded. However, all field connection shall be made with high strength bolts.

Workmanship and Fabrication Shall be in accordance with the AISC “Specification for the Design, Fabrication and Erection of Structural Steel for Buildings” as adopted in 1963. Welding shall be done by operators who have been previously qualified by tests as prescribed in the American Welding Society “Standard Qualifications Procedure” to perform the type of work required.

- a) Electrodes shall be Classification numbers ASTM A 233 and shall be suitable for positions and other conditions of intended use.
- b) The technique of welding employed the appearance and quality of welds made and the methods of correcting defective work shall conform to the AWS Work and shall conform to the AWS “Code for Arc-Welding in building Construction”.
- c) Surface to be welded shall be free from loose scale, rust, grease, paint and other foreign material except that scale which withstand vigorous wires brushing may remain. Finished members shall be true to line and free from twist, bends or uneven joints.

#### **D. MISCELLANEOUS METAL WORKS**

- 1. Submit Professional Shop Drawings for fabrication, connections and erection of miscellaneous metal fabrications.
- 2. Pipe hangers: Galvanized steel angular bars, hot dipped. Refer to Sanitary / Electrical drawings for sizes and dimension.

### **DIVISION 6: WOOD**

#### **LUMBER AND ARCHITECTURAL WOODWORKS**

##### **A. Schedule of Lumber and Plywood Works**

- 1. Medium Density Fiberboard: As per manufacturer’s specifications.
- 2. Plywood Backing for Glass Mirror: 6-mm thick marine plywood anchored to wall with necessary anchoring. Areas to be covered by mirror on toilets should be provided with tiles.

### **DIVISION 7: THERMAL AND MOISTURE PROTECTION**

All applications shall be strictly as per Manufacturer's Specifications. It shall strictly be performed by licensed or certified applicators / waterproofing contractor representing waterproofing manufacturer or insulation company specified herein. The Procuring Entity shall be furnished with pertinent literature and detailed drawings

## **WATERPROOFING**

Waterproofing: Furnish all labor, materials, equipment, plant and other facilities required to complete all waterproofing work as shown on the drawings and herein specified. All applications shall be strictly performed by an approved waterproofing Contractor.

All materials shall be Environmental Protection Agency (EPA) certified and approved.

Testing: Test waterproofed area by seventy-two (72) hours and check for any seepages.

1. for Toilets

Note: Areas not stated above but requiring waterproofing by Procuring Entity shall be included in the scope of work. Thickness should be as per Manufacturers Specifications and Installation depending on the Areas to be applied with.

## **DIVISION 8: DOORS AND EXTERNAL VIEWING WINDOWS:**

Refer to Schedule of Doors and Windows

### **A. DOORS AND WINDOWS**

1. Steel Doors: Fire rated (2H) Honeycomb insulated steel door and jamb (Ga 16 UL), pre-painted
2. PVC Doors: Polyvinyl chloride hard plate, the edge of the door is trimmed with PVC lining, minimum thickness of door plate is 42 mm.
3. MAIN ENTRANCE DOOR – Heavy Duty Floor Hinge Glass door, 12mm thick tempered, frameless glass door.
4. Aluminum Framed Window: 45mm x 1.5mm thick Powder Coated aluminum door tubular frame with 8mm thick clear full glass, tempered, analok finish.

Note: The contractor shall exercise the utmost care in dismantling, transfer and installation of the existing sliding door for restoration. In case of any damage, the contractor shall replace the sliding steel door without additional cost to the Procuring Entity.

### **B. FINISHING HARDWARE**

The following Hardware Sets are furnished for whatever assistance it may afford the Contractor. The Contractor shall verify Plans and Specifications for hardware quality. Should any particular item be omitted, Contractor shall provide similar or equivalent item or hardware same as required.

All door hardware must be ANSI A156.2 approved.

1. Locksets shall be Heavy duty lever type handles, HAFELE, Bonco or Hope Brand with locked keys and profile cylinders.
  - a. All locks shall have three (3) keys with the lock number stamped for identification. Verify number of duplicates.

b. Schedule: Use extra heavy duty industrial / commercial series of door hardware. Refer to Schedule of Doors

**Toilet Privacy Lock:** Use Corridor or Passage Lock for unlockable lockset.

**Keyed Entrance Mortise Lock:** Single cylinder with throw-deadbolt, standard full latch bolt with heavy duty anti-friction tongue. When locked, key outside or Knob inside retracts all bolts simultaneously. Outside Knob remains locked until thumb turn is restored to vertical position. Use Knob type.

**Single Cylinder Deadbolt Lock:** deadbolt thrown or retracted by key from outside or by inside turn unit.

Bolt automatically deadlocks when fully thrown Indicator Lock: for Toilet Stalls with safety release lock.

## 2. Door Hinges

a. Brand: Morgan or hafele, loose pin hinge 4 ½" x 4" heavyduty, chrome finish.

Schedule:

- Four Ball Bearing Hinges: 4 ½ " x 4" for metal louver doors over 900 mm in width and/or over 44 mm thickness, strictly SUS 304, Stainless Steel based
- Floor Hinge: standard duty floor hinge with closer on active and inactive leaf

b. Hinge finish shall match locusts of respective openings; stainless steel.

3. Door Closer: (Only on Specified Doors) grade 1 door closer with hold open function on active and inactive leaf. Can be surface mounted on hinge face or stop face for metal doors indicated in the Schedule, with finish matching locust of the respective opening and a slim line look; concealed type for aluminum doors to provide by aluminum door fabricator. Door closer shall be incorporated in the door closer. Brand: RYOBI brand

## 4. Miscellaneous Hardware

a. Door Plate and Pull Bar: Ga 16. Stainless Steel plate with stainless steel 20 mm diameter x 200 mm length pull bar, both in hairline finish. Brand: Yale

b. Flush 6" and Head Bolt 12": for two leaves of steel swing doors

c Push-Pull Bar: approximately 30 mm diameter x 600 mm long stainless steel

d. Push Plate: approximately 150 mm wide x 400 mm high stainless steel

e. Stainless Steel handle bars

f. Heavy Duty Flush Bolt

- g. All other necessary hardware such as latch bolts, catch locks, door chain fasteners, door stops, wall stops and holders, push plates, handles, etc. shall be of type, size and design suitable for the purpose.

## C. GLASS AND GLAZING

1. Caulking, Weather stripping, Sealing and Glazing Compound: refer to Division 7 on Sealants
2. Schedule: All glass should match color of existing. The contractor shall submit glass sample with performance data and certifications from the manufacturer.
  - a. Aluminum Framed Fixed interior Viewing Windows
    1. 10mm thick clear tempered glass for aluminum fixed windows on building interiors.
    2. 8mm thick tempered for door and big window glass areas with sill height less than 800 mm from floor finish.  
Manufacturer: Metro Shutters, Door Tech or Republic Asahi
  - b. 6 mm thk. facial mirror with beveled edges for Toilets on 6mm thk marine plywood backing

## DIVISION 9: FINISHES

Refer to Architectural Plans for location. Verify plans for other finishes not specified or omitted herein. Sample of all materials shall be submitted to the Procuring Entity for approval as to color and quality workmanship.

### A. FLOOR FINISHES

1. Supply and installation of 600mm x 600mm x 5mm thick granite tile. For Work station and Meeting area as shown in Floor Plan Finish with Codes. Submit sample for Procuring Entity's approval.
2. Epoxy Paints - The coating system shall be Epoxy High-Build Coating System using Epoxy Primer, and two (2) coats of Epoxy Solids Epoxy Coating. This system shall be applied over a clean, well prepared substrate. See manufactures surface preparation guide for additional information. Manufacturer: Armstrong. Prior to system application, all control joints and cracks are to be treated with semi-rigid epoxy joint filler and rigid epoxy crack filler respectively. Submit Samples for approval.
3. Epoxy System with Broadcast - solids epoxy floor coating system with silica sand or quartz sand broadcasted into the pigmented base coat and sealed with pigmented epoxy. For Ramp/Portico area. See Design layout. Submit Samples for approval.

4. Vitrified Glazed & Unglazed Tiles: Supply and installation of 9 to 10 mm x 600 mm x 600 mm premium series for Toilet Wall & Floor Tiles. Refer to Schedule of finishes. Submit sample for Procuring Entity's approval.

## **B. WALL FINISHES**

1. Plain Cement Plaster Finish: 25 mm. thick on vertical, on masonry and for all concrete hollow block surfaces, painted finish as indicated in the Drawings and for all areas not otherwise noted with other finishes.
2. Polished Ceramic Wall Tiles: Supply and installation of 600 mm x 600 mm Ceramic floor tiles complete with all PVC trims; 20 - 30 mm thick mortar setting bed with tile grout spacing of 5 mm. Wall tiles for Toilet shall extend up to the ceiling or as indicated on plans. Submit samples for approval
3. Supply and installation of homogeneous, floor-anchored, high pressure compact OR Marine laminated partition and doors.
4. Fiber Cement Board: 6-mm thick for Dry Interior Walls located at the hatch area.
  - a. Use standard G.I. metal Studs framing at every 400-mm on center both ways. Provide standard construction system complete with seismic bracing.

## **C. CEILING FINISHES**

1. Dismantling & Demolition Works: Removal of existing utilities as affected by the new ceiling layout and finish such as piping, ducting and others unnecessary utilities.
2. Ceiling Suspension System – Perforated Ceilings for toilets: ASTM C 635 (Intermediate duty) main beam and cross tee classification, commercial quality dipped galvanized steel. All exposed surfaces to be chemically cleansed with capping in baked polyester and/or treated with powder coat white finish. Provide seismic bracing. Submit shop drawings for approval.
3. Gypsum Board: Supply and installation of Gypsum ceiling on a 400mm x 400mm G.I. Framing Suspended Ceiling System complete with all accessories and acrylic diffuser lighting system. Please see ceiling details in Work Stations and Meeting area.
4. Rubbed Concrete for exposed concrete - Bonding Grout: 1 part Portland cement to 1 part No. 30 mesh sand, mixed to the consistency of a thick cream.

## **D. PAINTING WORKS**

All materials shall be Environmental protection Agency (EPA) certified and approved. Examine older unpainted masonry for evidence of efflorescence, mildew, mold and moss.

While these conditions are not common, they all indicate the presence of moisture. Examine all possible entry points for water. Where necessary, repair flashing and caulking; tuckpoint defective mortar joints.

Remove all efflorescence by scrubbing with clear water and a stiff brush. A wall which has effloresced for a long time may present difficulties. The presence of moisture, the deposition of salts and the probable presence of alkalies are all factors which may contribute to the deterioration of paints.

#### Painting Materials:

1. Submit various painting materials specification data and sample to be used for Procuring Entity's approval.
2. All primers, thinners and putty, also waterproofing for internal and external application shall be the same brand as the specified material.
3. Painting materials including its application must be covered with minimum of five- (5) year guarantee to be rendered by the painting manufacturer.
4. Use BOYSEN or DAVIES only for all painted works.

#### Application:

1. All sample paint shall be submit on at least 300-mm x 300-mm plywood panel, color and shade as per approval by the Procuring Entity.
2. Application shall be as per paint Manufacturer's specification and recommendation.
3. Provide all drop cloth and other covering requisite for protection of floors, walls, aluminum, glass, finishes and other works.
4. All applications and methods used shall strictly follow the Manufacturer's Instructions and Specifications. All surfaces including masonry wall shall be thoroughly cleaned, puttied, sandpapered, rubbed and polished; new masonry wall shall be treated with Neutralizer.

All exposed finish hardware, lighting fixtures and accessories, glass and the like shall be adequately protected so that these are not stained with paint and other painting materials prior to painting works. All other surfaces endangered by stains and paint marks should be taped and covered with craft paper. Manufacturer: Boysen or Davies Paint

#### Painting Schedule:

1. Interior and Exterior
  - a. Interior Concrete or Masonry Painted - Three (3) coats water-based masonry plain semi-gloss finish. Sample Shades for Procuring Entity's Approval.
  - b. Plain Flat Finish: Acrylic water-based paint on ceilings, three (3) coats. FLAT

- c. Plain Semi-gloss in Acrylic water-based Epoxy paint on interior walls, columns, on all other interior concrete surfaces. (3) Coats

## **DIVISION 10: SPECIALTIES**

### **TOILET DOORS AND PARTITIONS**

#### **A. TOILET CUBICLES**

1. Partition System: homogeneous, floor-anchored, high pressure compact OR Marine laminated partition and doors complete with stainless steel bracing and hinges, brass or molded plastic pedestals, and indicator lock with heavy duty stainless steel hardware. Submit catalogue & mock-up for Procuring Entity's approval.
2. Accessories: All accessories should be in molded plastic material. Submit samples for Procuring Entity's Approval.
  - a. Grab Bars: provide stainless steel grab bars for handicapped toilets.
  - b. Urinal Dividers: wall-hung suspended type with stainless stiffener and stainless steel wall bracket; material same as toilet partition system

#### **B. OFFICE WORKING STATION SYSTEMS:**

Please see detailed plans with specification.

## **DIVISION 11: TOILETS**

#### **A. PLUMBING FIXTURES AND ACCESSORIES**

All fixtures shall be installed complete with accessories, such as fittings, angle valve, shut-off valve and supply pipe assembly, p-traps flange and others to make it functional. Submit model and color samples for Procuring Entity's approval of all fixtures and accessories.

Plumbing Fixture Colors: White Verify with Procuring Entity

1. Water closet: Siphon Vortex bottom inlet top flush. WC Supplier: Kuysen, Mcbuild Hardware, Mc Home Depot, Ortigas Home Depot or Wilcon Builders.
2. Urinal: Wall-hung type, wash-out urinal to match water closet color.
3. Lavatory:
  - 3.a. Under the counter type lavatory with single faucet hole on center w/ front overflow hole, to match water closet color.
  - 3.b. Wall hung type
  - 3.c. Wall hung with full pedestal type
4. Lavatory Faucets: self-closing press-action tap model with timed flow and anti-blocking system.

5. Floor Drains: Stainless steel 4"x4" Supplier: Asian hardware.
6. Mop Sink Bibb: wall-mounted long gooseneck faucet

## **DIVISION 12 ELECTRICAL SPECIFICATIONS**

### **1.0 GENERAL DESCRIPTION**

1.1 The work to be done under this DIVISION of the Specifications consist of the fabrication, furnishing delivery and installation, complete in all details of the Electrical Work, at the subject premises and all work materials incidental to the proper completion of the installation, except those portions of the work which are expressly stated to be done by others. All work shall be done in accordance with the governing Codes and Regulations and with the Specifications, except where same shall conflict with such codes etc., which latter shall then govern. The requirements with regards to materials and workmanship specify the required standard for the furnishing of all labor, materials and appliances necessary for the complete installation of the work specified herein and indicated on the drawings. The Specifications are intended to provide a broad outline of the requirement and are not intended to include all details of design and construction.

### **1.2 LAWS/CODES and REGULATIONS:**

The work under this DIVISION shall be executed in accordance with the latest requirements of the following:

- x Building Code of the Philippines
- x Philippine Electrical Code
- x Laws, ordinances, and regulations of the locality having jurisdiction over the project.
- x Power and telephone utility companies
- x UAP Doc. 301

The requirements of the above mentioned governing laws/codes and the requirements of the companies having involvement/participation are hereby made part of this Specifications and the ELECTRICAL CONTRACTOR is required to comply with the same. This does not relieve the ELECTRICAL CONTRACTOR from complying with requirements of specifications or drawings in excess of above laws and ordinances, codes and requirements which are not prohibited by the same.

### **1.3 GUARANTEE**

The ELECTRICAL CONTRACTOR shall guarantee that the electrical system is free from all grounds and defective materials and workmanship for a period of one (1) year from the date of acceptance of the work. All defects arising within the guarantee period shall be reminded by the ELECTRICAL CONTRACTOR at his own expense. The ELECTRICAL CONTRACTOR shall indemnify and save harmless PROCURING ENTITY from and against all claims, suits, actions, or liabilities for damages arising from injuries, disabilities or loss of life to persons or damage to public or private properties resulting from fault or any act of contractor or his representative in the execution of this work.

The partial acceptance of the work for the purpose of making partial payments, based on the estimated cost satisfactorily completed by the ELECTRICAL CONTRACTOR, shall not be considered as final acceptance of that portion of the work.

## 1.4 DRAWINGS & SPECIFICATIONS

- 1.4.1 The electrical plans, which constitute an integral part of these Specifications, shall serve as the working drawings. The plans indicate the general layout and arrangement of the complete electrical system and other works.
- 1.4.2 The drawings and specifications are meant specifically to be complementary to each other and where it is called for by one shall be binding as if called for by both. Anything which is basically required to complete the installation for proper operation but not expressly mentioned on the drawings and/or specifications shall be furnished and installed by the ELECTRICAL CONTRACTOR at no extra cost to the PROCURING ENTITY as though specifically stipulated or shown in both.
- 1.4.3 Procuring Entity shall have the final decision on any apparent conflict between the drawings and specifications or on any under and controversial point in either or both.
- 1.4.4 All dimensions and locations shown on the plans are approximate and shall be verified in the field, as actual locations, distances, and levels are governed by actual conditions.

## 2.0 SCOPE OF WORK

### 2.1 Work Included

The work to be done under this DIVISION shall include the furnishing of all tools, labor, equipment, fixtures and materials, each complete and in proper working condition unless one or other is specifically excluded or stated otherwise in these Specifications but not limited to the following principal items of work:

- 2.1.1 Furnish and install a complete wiring and raceway system for the underground power and telephone distribution system including concrete pedestals, concrete hand holes and necessary wiring gutters and boxes.
- 2.1.2 Furnish and install a complete grounding system.
- 2.1.3 Perform terminations for all electrical system.
- 2.1.4 Complete testing of all electrical systems.
- 2.1.5 Preparation of "As-built" drawings.
- 2.1.6 If any item of works or material has been omitted which are necessary for the completion of the Electrical Work as outlined herein before, then such items shall be and hereby included in this section of work.

### 3.0 PROCEDURE

#### 3.1 Workmanship

The ELECTRICAL CONTRACTOR shall execute the work in the most thorough, prompt and workmanlike manner and in accordance with the plans and specifications. The installations shall be done thru standard methods and good engineering practices.

#### 3.2 Materials

All materials to be installed shall be brand new except as otherwise noted on the plans or specifications. The materials shall be as specified. No substitution of materials is allowed. Should the ELECTRICAL CONTRACTOR find it necessary to use another type/brand of materials instead of the specified item, he shall first obtain approval from the PROCURING ENTITY prior to installation. Any substituted material installed without the approval of the PROCURING ENTITY shall be subject to replacement.

#### 3.3 Coordination

It is the sole responsibility of the ELECTRICAL CONTRACTOR to conduct coordination of his activities with the following:

- 3.3.1 Other trades and suppliers
- 3.3.2 Procuring Entity/Engineer
- 3.3.3 PNRI
- 3.3.4 Local Government Authority

#### 3.4 Deviation from the Plans

No deviation from the plans is to be made unless given notice or approval by the PROCURING ENTITY.

#### 3.5 Record Drawings and „As-Built” plan.

The ELECTRICAL CONTRACTOR is required to keep an active record of the actual installation during the progress of the job. This shall be the reference in the preparation of the „As-Built” plans which shall include all pertinent information, complete in all aspect of the actual installation, and all new information not originally shown in the contract drawings. The „As-Built” plans shall be prepared by the ELECTRICAL CONTRACTOR at his expense and shall be submitted to the Procuring Entity for approval upon the completion of the work. The approval of the „As-Built” drawings shall be a pre-requisite for the final acceptance of the electrical works. Submit two (2) copies of the “As-Built” drawings signed and dry sealed by the ELECTRICAL CONTRACTOR’S Registered Professional Electrical Engineer. Original tracing/reproducible copy shall also be submitted to the PROCURING ENTITY.

#### 3.6 Samples & Shop Drawings

##### 3.6.1 30 days prior to the installation or fabrication of materials

The ELECTRICAL CONTRACTOR shall submit to Procuring Entity the following for approval.

- a. Shop drawings of panel boards showing arrangements of circuit breakers, bus bar sizes, lugs, etc. Indicate all dimensions.
- b. Shop drawings or samples required as noted in the drawings.
- c. Samples and catalogs of materials intended to be installed.

3.6.2 The ELECTRICAL CONTRACTOR shall also submit to the Procuring Entity without delay shop drawings and other submittals which may be required by Procuring Entity during the progress of construction.

3.6.3 The above requirements shall be submitted to the Procuring Entity at the earliest possible time to give allowance for checking and verification. These shall be complete in all aspects.

### 3.7 Electric Power

The ELECTRICAL CONTRACTOR shall be responsible for his own electric power needed for the execution of the job.

### 3.8 TEST

Conduit tests on all electrical conductors installed in the presence of the PROCURING ENTITY's representative.

3.8.1 Check for grounds

3.8.2 Insulation resistance test

3.8.3 Continuity test for all outlets

3.8.4 Voltage level test

3.8.5 Phase relationship

3.8.6 Check circuit connections at panel boards, all single phase circuit shall be connected to phase as shown in the load schedule.

### 3.9 Submit Reports on Tests

All reports must be formal, typewritten and properly identified.

3.10 All defects found during the test shall be repaired immediately by the ELECTRICAL CONTRACTOR.

3.11 All tools, equipment and instruments needed to conduct tests shall be on the account of the CONTRACTOR.

## 4.0 METHODS & MATERIALS

### 4.1 Conduits

4.1.1 Rigid Steel Conduits (RSC) and Intermediate Metal Conduit(IMC):

- a. Standard trade sizes, hot dipped galvanized with inside enamel or epoxy coating. Matsushita, Allied, Setsuyo, Pusan and Maruichi.
- b. Joints-threaded coupling for joints.
- c. Use for power & lighting.

#### 4.1.2 Polyvinyl Chloride Conduit (PVC)

- a. Standard trade sizes, schedule 40 “ATLANTA”.
- b. Coupling & fittings - standard couplings for joints by solvent weld process.
- c. Telephone System & other auxiliary system.

#### 4.1.3 Installation of Conduits

- a. Installation is in accordance with PEC and of good engineering practice.
- b. Use standard trade sizes locknut and bushing at each end terminating in boxes/panel boards. Ensure electrically continuous conduit system.
- c. Provide independent conduits supports using hangers, supports or fastenings spaced in accordance with good engineering practice and PEC.
- d. Use adjustable trapeze hangers for horizontal parallel runs.
- e. Conduits bends shall not be more than the equivalent of three (3) 90 degree bends between pulling points.
- f. Conduit threads cut on job shall have same effective lengths, thread dimensions, and taper as factory threads.
- g. Cut ends of conduit square with hand or power saw and ream to remove burrs and sharp edges. Do not use wheel cutter.
- h. Clamps shall be galvanized malleable iron one-hole straps, beam clamps or other approved device with necessary bolts and expansion shields.
- i. Trapeze hangers shall be used for parallel runs of conduits. Install conduit clamps at end of each run and at each elbow. Paint hangers one prime coat of red lead or zinc chromate, and one finish coat of an approved color. Hangers are not detailed but must be adequate to support combined weight of conduit, conductors and hangers. Submit shop drawings for approval.
- j. All underground conduits installed shall be provided with concrete encasement at least 8cm. thick outer face of conduit.

#### 4.2 Wires

1. Wires shall be annealed copper, 98% or better conductivity, insulated, single, except as noted in the drawings.
2. 600 volt class type as indicated in the plans.
3. Wires greater than no. 8 mm<sup>2</sup> shall be stranded.
4. Minimum size shall be #3.5 TW for power and lighting circuits.
5. Telephone wires shall be no. 22 AWG jacketed type, 4 wires.
6. Use standard methods in pulling wires.
7. Splices of wires/cables shall be done inside junction boxes or auxiliary gutters using standard connectors. No wires shall be spliced inside conduits.

8. All wires and cables shall be color coded as follows:

Phase A	Red
Phase B	Yellow
Phase C	Black
Ground	Green
Neutral	White

#### 4.3 Connectors

Use solderless mechanical pressure - type lugs, copper

#### 4.4 Insulation

All splices shall be properly insulated using 3M electrical tape.

Application of insulation tape shall be equivalent to the insulation of the wire concerned. Use filler compound, "Scotch fillat sharp edges to provide smooth surface before taping.

#### 4.5 Panel board & Circuit Breaker

4.5.1 NEMA type/enclosure unless noted, PEC rules and regulations, circuit breaker type shall be 230V, number of pole as required.

4.5.2 Panel boards shall contain a single brand of circuit breakers and as manufactured by "Schneider Electric", "Cutler Hammer" or "GE".

4.5.3 All circuit breakers used as main shall be "Bolt on" type molded case, thermal magnetic protective, quick make, quick break, trip free from handle, trip indicating, number and size as shown in the schedule. Internal common trip for 2 and 3 pole breakers.

4.5.4 Breaker minimum interrupting capacities shall be based on NEMA and UL test procedures.

a. 230 volt breakers - 10,000 rms. Symmetrical amperes at 240V A/C (minimum)

4.5.5 All circuit breakers used as branches rated at below 100 AT and specifically installed in lighting panel boards shall be "bolt-on".

4.5.6 Word "space" indicated in the schedule shall mean that complete bus, insulators, etc. shall be included ready to accept future circuit breaker of the same frame size as the largest branch circuit breaker.

## **DIVISION 13 PLUMBING / SANITARY WORKS**

### **1.0 SCOPE OF WORKS**

1.1 The work to be undertaken under this section shall consist of the furnishing of all materials, labor tools, equipment and other facilities and the satisfactory performance of all work necessary for the complete installation, testing and operation of the plumbing system

accordance with the applicable drawing and this section of that specifications consisting of, but not necessarily limited to the following:

- a. Soil, waste and vents pipe system, within the building up to sewer line.
- b. Interior fire protection system consisting of combination standpipes, valves, fire hose cabinets, inlets, connectors and portable fire extinguishers.
- c. Water service connection from main building distribution system.
- d. Furnishing, installation and testing of water closets, lavatories, accessories including controls & piping works.
- e. Furnishing and installation of all plumbing fixtures, fittings, trims and accessories.
- f. All work shall be performed in accordance with the requirements of all applicable laws of the Republic of the Philippines and all local codes and ordinances.

1.2 The contractor is required to refer to all mechanical, electrical, structural and architectural plans and specifications all shall investigate all possible interference and conditions affecting his work in this section and that of the other sections.

1.3 All plumbing works to be done and sizes of pipe to be used shall be of the sizes, which are required and in accordance with the NATIONAL PLUMBING CODE OF THE PHILIPPINES.

## 2.0 GENERAL

### 2.1 DRAWING AND SPECIFICATIONS:

- a) The contract drawings and the specifications are complimentary to each other, and any labor or materials called for by both, if necessary for the successful operation of any other particular types of equipment shall be furnished and installed without additional cost of Procuring Entity.
- b) All dimensional locations of fixtures, equipment, floors and roof drains risers and pipe. Chases shall be verified on the architectural drawings and manufacturer's catalogs.
- c) Upon completion of the work as described herein, the Contractor shall at his own expense furnish the Procuring Entity originals and three (3) sets of "AS BUILT" Plans for future reference and maintenance purposes.

### 2.2 PROTECTION:

The contractor shall protect all his work and materials loss, injury or defacement. Protection of fixtures and materials shall be provided by boards, papers and/or cloth as required and any loss, damaged or deface material shall be replaced by the Contractor at his own expense.

### 2.3 INSTALLATION AND WORKMANSHIP:

- a. All labor shall be performed in a first-class, neat and workman like manner by mechanic skilled in their work shall be satisfactory to the Project Architect.

- b. No piping in any location shall be closed up, furred in or covered before testing and the examination of same by the inspector, Procuring Entity or their representatives.

### 3.0 IDENTIFICATION OF MATERIALS:

- a. Each length of pipe, fitting, traps, fixtures, and device used in the plumbing system shall have cast, stamped or indelibly marked on it the manufacturer's trade mark or name, the weight, the type, and classes of product when so required by the standards mention above.
- b. All plumbing fixtures and fittings installed without the above trademarks shall be removed and replaced with probably marked fixtures and fittings without any extra cost to the Procuring Entity.

### 4.0 WATER SUPPLY

- a. Pipes and fittings for waterline shall be as SPECIFIED BY EPPI.
- b. Valves-All valves, unless otherwise specified shall be gate valves of size as indicated in the drawings: for hot water supply, valves and fittings shall be insulated of a thickness equal to that of the insulation on the adjoining pipe, securely fastened in place.

### 4.1 SANITARY DRAINAGE

- a. Soil and waste Pipes and Fittings:  
Soil and waste pipes and fittings shall be PVC pipes (POLYVINYL CHLORIDE) series 1000 Neltex.
- b. Vent Pipes and Fittings:  
Vent pipes and fittings shall be PVC pipes
- c. Shower and Floor Drains:  
Shower and floor drains shall be of high grade, strong, tough, and even grained metals.
- d. Cleanouts:
  - 1. Ceiling cleanouts shall be of the same material as pipe with sealed screw type, raised head plug.
  - 2. Floor cleanouts shall be cast-iron body with brass plug, colt-type or countersunk head;  
METMA brand.

### 4.2 HANGERS, INSERTS AND PIPE SUPPORTS

- A. Provide suitable and substantial hangers and supports for all piping.
- B. Support horizontal piping in accordingly approved sizes where pipe clamps are too short to connect to the building construction.

## 5.0 EXECUTION

### 5.1 GENERAL INSTALLATION OF PIPES

- A. Install pipes approximately as shown on the drawings, as straight and direct as possible forming right angles parallel lines with walls and other pipes, and neatly spaced unless otherwise indicated. Care shall be taken not to weaken the structural portions of the building.
- B. Maintain minimum slope of 3mm (1/8 inch fall per foot) on all soil, waste and drain lines 100mm in diameter.
- C. Do not install pipes or other apparatus in a manner which will interfere with full swing of the doors and windows.
- D. The arrangement, position and connection of pipe fixtures, drains, valves and the like indicated on the drawings shall be followed as closely as possible, the right is reserved by the Procuring Entity to change location and elevations to accommodate conditions which may arise during the progress of the work prior to installation, without additional cost of the Procuring Entity for such changes. The responsibility for accurately laying out of the work rests with this Contractor. Should be found that any work if laid out caused interference, the matter shall be reported to the Engineer before connecting the work.
- E. Ream all screwed pipes smooth before installation. Do not bend, flatten, split or injure pipes in any way.
- F. Use reducing fittings, in making reduction in size of pipe. Bushing will not be allowed unless specifically approved.
- G. Where chrome plated piping is installed, cut and thread pipe. Bushing will not be allowed unless specifically approved.
- H. Carry fixture connections, concealed in building constructions, to points above floor, break out close to underside of fixture and rise exposed to fixture.
- I. No piping shall be installed which will provide a cross or interconnection between a distribution supply of drinking water of Domestic use and pollution or waste pipe, the water line shall be placed above the waste pipe in ground installation.

### 5.2 INSTALLATION OF WATER SUPPLY PIPES AND FITTINGS

- A. The piping shall be extended to all fixtures, outlets and equipment. Ends of pipes and outlets shall be capped or plugged and left ready for future connections.
- B. Branch pipe from service line may take off of main, bottom of main, or side of main, using such cross over fittings as may be required by structural or installation conditions. All service pipes, valves and fittings shall be kept at sufficient distance from other work to permit finished covering not less than 12.7mm (1/2") from such other work and not less than 12.7mm between finished coverings on the different services. No water piping shall be buried in floors until after they have been inspected and approved.
- C. Where the branch serves more than one fixture, the branch shall be increased in size in proportion to sizes as shown on the drawings.
- D. Cast bronze unions shall be installed at the connection to all equipment so that they may be conveniently disassembles.

- E. Upon completion of water system, flush out lines and all valve sets to clear system of particles and dirt.

### 5.3 INSTALLATION OF SOIL, WASTE, VENT AND DRAINAGE PIPING

#### A. Horizontal Drainage Pipe and Vent Piping

Horizontal waste pipe 75mm (3") and smaller shall have minimum grade of 6mm (1/4") per foot, and for 100mm (4") and larger, 3mm (1/8") per foot. Vertical vent pipes may be connected to a vent lines carrying other fixtures, the connection to be at least 1.20m (4 feet) above floor on which the fixtures are located to prevent the use of any vent lines as waste lines. Horizontal waste lines receiving the discharge from two (2) or more fixtures shall be provided with vents, unless separate venting of fixtures noted.

- B. Fittings - All changes in pipes sizes on soil waste line shall be made with reducing fittings or recessed reducers. All changes in direction shall be made with the appropriate use of 45 wyes, half wyes, long sweep quarter bends, or elbows may use in soil and waste lines where the change in direction of flow is from horizontal to vertical, and on the discharge from water closets. Where it become necessary to use short radius fittings in any other location, the approval of the Procuring Entity shall be obtained before they are installed.

- C. Traps - Each fixture and place of equipment connection to the drainage system except fixture with continuous waste shall be equipped with a trap. Traps shall be placed as near to fixtures as possible.

### 5.4 FIXTURES AND EQUIPMENT SUPPORTS AND FASTENINGS

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

- A. Where secured to concrete on hollow block, walls they shall be fastened with 6mm (1/4") brass bolts with twenty threads to the inch and of sufficient length to extend at least 75mm (3") into solid concrete on hollow block work; fitted with loose tubing or sleeve inserts, shall be securely anchored and installed flush with the finished wall and shall be completely concealed when the fixtures are installed.
- B. Where though bolts are used, they shall be provided with name plates and washers at backsets so that head, nuts and washer will be concealed by plaster. Bolts and nuts shall be hexagonal and screw shall be provided chromium brass washers.
- C. Upon completion of work, all fixtures, trimmings, and equipment shall be thoroughly cleaned, polished and left in first class condition for final acceptance.

### 5.5 CLEANING AND PAINTING

- A. Prior to acceptance of the work, thoroughly clean all exposed metal surface and rid of grease, dirt or other foreign material. Chrome or nickel – plated piping's, fitting and trimming shall be polished.
- B. Pipe hangers, supports and all other iron work in concealed spaces shall be thoroughly cleaned and painted with one coat of red lead and a finish coat of oil enamel paint.
- C. All exposed soil, waste and vent piping or cast iron that are asphalt or tar-coated shall be given two (2) coats of shellac and two (2) coats of oil paint.

## 5.6 WATER SYSTEM TEST

- A. Upon completion of the roughing-in and before fixtures, the entire water piping system shall be tested at a hydrostatic pressure of one and half ( 1-1/2 ) times the expected working pressure in the system when in operation, and proven tight at this pressure or not less than 150 psi gauge.
- B. Where a portion of the water piping system is to be concealed before completion, this portion shall be tested separately in a manner to that described for the entire system, and in the presence of the Procuring Entity or its representative.

## 5.7 DRAINAGE SYSTEM TEST

- A. The entire drainage and venting system shall have necessary opening which can be plugged to permit the entire system to be filled with water to the level of the highest vent stack and/or vent above the roof.
- B. The system shall hold this water for a full thirty (30) minutes during which time there shall be no drop more than four inches 100mm (4”).
- C. If and when the Procuring Entity decides that an additional test is needed, such as an air or smoke test on the drainage system, the Contractor shall perform such test without additional cost to the Procuring Entity.

## **DIVISION 14 MECHANICAL WORKS**

### NOTE:

All the Mechanical works shall be done in accordance with the provision of the latest edition of the Philippine Mechanical Engineering Code, to the rules and regulations of the local and national authorities and the requirements of local utility concerned.

ACUs to be installed are shown in the mechanical plans. Provision for additional ACUs in excess of what is prescribed will be considered non-responsive.

- 1. Fabrication of Duct connecting to Building Owned ACU's as shown in the mechanical plans
  - 1.1 The air-conditioning supply ducts shall be of low-pressure construction and fabricated as per “SMACNA” (Sheet Metal and Air Conditioning National Association) Standards.
  - 1.2 The air ducts shall be properly insulated with fiberglass insulation, 32 kg/m<sup>3</sup> density with reinforced aluminum foil vapor barrier on the outside. Insulation thickness shall be 25mm.
- 2. Installation of refrigerant lines, drain pipes and electrical supply on all ACUs
- 3. Installation of Exhaust System at the following areas:  
Refer to Mechanical Plans for details

- Toilets (Male and Female)
- Storage room
- Women's Clean room

## **DRAWINGS AND SPECIFICATIONS**

- 1.0 In case of discrepancies between the figures and drawings, the matter shall be referred immediately to PNRI, before any adjustment is made by the CONTRACTOR. The decision of PNRI in the adjustment of discrepancies so as to conform to the real intent of the drawings shall govern and shall be followed by the CONTRACTOR.
- 2.0 Any discrepancies/errors/omission found by PNRI between the drawings and specifications shall be immediately reported to the CONTRACTOR, who will promptly correct such discrepancies at the Contractor's expense.
- 3.0 After completion of work as described herein, the CONTRACTOR shall furnish PNRI at his own expense, one (1) original copy and three (5) blue print plans of 20" x30" "As-built Plan" signed by a Civil Engineer.

## ***Section VII. Drawings***

(Please see separate Blue Prints)



## *Section VIII. Bill of Quantities*

**PROJECT: ESTABLISHMENT OF TWO-STOREY RADIATION  
PROTECTION SERVICES FACILITY**

**SUBJECT: SUMMARY OF DETAILED COST ESTIMATE**

ITEM	DESCRIPTION	COST
1.	GENERAL REQUIREMENTS	_____
2.	EARTH WORKS	_____
3.	CONCRETING WORKS	_____
4.	SCAFFOLDING AND FORMWORKS	_____
5.	MASONRY WORKS	_____
6.	CEILING WORKS	_____
7.	STEEL WORKS	_____
8.	ROOFING WORKS	_____
9.	DOORS AND WINDOWS	_____
10.	SPECIALTY WORKS	_____
11.	THERMAL AND MOISTURE PROTECTION	_____
12.	ARCHITECTURAL FINISHES	_____
13.	PAINTING WORKS	_____
14.	SANITARY AND PLUMBING WORKS	_____
15.	ELECTRICAL WORKS	_____
	<b>DIRECT COST</b>	_____
	<b>TOTAL DIRECT COST</b>	_____
	<b>INDIRECT COST</b>	_____
	<b>CONTINGENCY OH/SUPERVISION</b>	_____
	<b>PROFIT</b>	_____
	<b>TOTAL INDIRECT COST</b>	_____
	<b>TOTAL DIRECT AND INDIRECT COST</b>	_____
	<b>VAT (12%)</b>	_____
	<b>TOTAL PROJECT COST</b>	_____

















## ***Section IX. Bidding Forms***

### **TABLE OF CONTENTS**

Bid Form .....	119
Form of Contract Agreement .....	140
Omnibus Sworn Statement .....	140
Bid Securing Declaration.....	91

Procuring Entity: **PHILIPPINE NUCLEAR RESEARCH INSTITUTE**

Name of the Project: **Establishment of Two-Storey Radiation Protection Services Facility**

Location of the Project: **PNRI Compound, Commonwealth Avenue, Diliman, Quezon City**

## **Checklist of Technical Information/Documents Requirements for Bidders First (1<sup>st</sup>) Envelope**

**The 1<sup>st</sup> Envelope shall contain the following:**

### **A. ELIGIBILITY REQUIREMENTS**

#### **LEGAL DOCUMENTS – CLASS “A”**

- ☐ PhilGEPS Certificate of Registration and Membership
- ☐ Department of Trade and Industry (DTI) business name registration for sole proprietorship, SEC Registration Certificate with latest **General Information Sheet (GIS)** for corporation or CDA for cooperatives, whichever may be appropriate under existing laws of the Philippines, supported with the necessary information using the prescribed forms
- ☐ Valid and current Mayor’s permit issued by the city or municipality where the principal place of business of the prospective bidder is located.

#### **LEGAL DOCUMENTS – CLASS “B”**

- ☐ Valid joint venture agreement (JVA), in case of a joint venture

#### **TECHNICAL DOCUMENTS – CLASS “A”**

- ☐ Statement of the Bidder’s all Ongoing government and private contracts and Single Largest Completed Contracts (SLCC) in the last five (5) years, including contracts awarded but not yet started to include the following;
  1. the name of the contract;
  2. date of award/status of the contract;
  3. contract duration;
  4. owner’s name and address;
  5. nature of work;
  6. contractor’s role (whether sole contractor. Sub-contractor, or partner in a JV);
  7. total contract value at award;
  8. date of completion or estimated completion time;
  9. total contract value at completion, if applicable;
  10. percentages of planned and actual accomplishments, if applicable;
  11. value of outstanding works, if applicable
  12. the statement shall be supported by the notices of award and/or notices to proceed issued by the owners; and
  13. the statement shall be supported by the Constructors Performance Evaluation System (CPES) rating sheets, and/or certificates of completion and owner’s acceptance, if applicable.
- ☐ Valid Philippine Contractors Accreditation Board (PCAB) license and registration for the type and cost of the Contract to be Bid

## **FINANCIAL DOCUMENTS – CLASS “A”**

- ☐ Audited financial statements, stamped “received” by the BIR or its duly accredited and authorized institutions, which comprise the statements of financial position as of December 31, 2015 and 2016, showing among others the total and current assets and liabilities.
- ☐ Computation of Net Financial Contracting Capacity (NFCC) or Committed Line of Credit from a Universal or Commercial Bank
- ☐ Latest Valid Tax Clearance per E.O. 398 s. 2005, as finally reviewed and approved by the BIR.

## **B. TECHNICAL INFORMATION/DOCUMENTS**

- ☐ Bid Security in the prescribed form, amount and validity period
- ☐ Duly Signed Contract Organizational Chart
- ☐ Duly Signed List of Contractor’s Personnel (Project Manager; Project Engineer; Materials Engineer & Foreman), to be assigned to the contract to be bid, with their complete qualification and experience data.
- ☐ Duly Signed List of Contractor’s Major Equipment (owned, leased or under purchase agreement supported by certification of availability of equipment from the equipment lessor/vendor for the duration of the project).
- ☐ Omnibus Sworn Statement executed by the bidder or its duly authorized representative as to the following:
  1. The signatory is the duly authorized representative of the prospective 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 accompanied by the **duly notarized Special Power of Attorney, Board/partnership Resolution, or Secretary’s Certificate**, whichever is applicable;
  2. It is not “blacklisted” or barred from bidding by the GOP or any of its agencies, offices, corporations, or LGUs, including foreign governments/foreign or international financing institution whose blacklisting rules have been recognized by the GPPB.
  3. 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.
  4. It is authorizing the Head of the Procuring Entity (HOPE) or his duly authorized representative/s to verify all the documents submitted.
  5. It complies with the disclosure provision under Section 47 of the Act and this IRR, in relation to other provisions of R.A. 3019;
  6. It complies with the responsibilities of a prospective or eligible bidder provided in the PBDs
  7. It did not give or pay 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.
- ☐ Bid/Supplemental Bulletins, if any.
- ☐ Certificate of Site Inspection

Procuring Entity: **PHILIPPINE NUCLEAR RESEARCH INSTITUTE**

Name of the Project: **Establishment of Two-Storey Radiation Protection Services Facility**

Location of the Project: **PNRI Compound, Commonwealth Avenue, Diliman, Quezon City**

### **JOINT VENTURE AGREEMENT**

KNOW ALL MEN BY THESE PRESENTS:

That this JOINT VENTURE AGREEMENT is entered into by and between between:  
\_\_\_\_\_, of legal age, (civil status), owner/proprietor of  
\_\_\_\_\_ and a resident of \_\_\_\_\_.

- and -

\_\_\_\_\_, of legal age, (civil status), owner/proprietor of  
\_\_\_\_\_ a resident of \_\_\_\_\_.

That both parties agree to join together their capital, manpower, equipment, and other resources and efforts to enable the Joint Venture to participate in the Eligibility Check, Bidding and Undertaking of the hereunder stated Contract of the (Name of the Procuring Entity).

NAME OF PROJECT

CONTRACT AMOUNT

That both parties agree to be jointly and severally liable for the their participation in the Eligibility Check, Bidding and Undertaking of the said contract.

That both parties agree that \_\_\_\_\_ and/or \_\_\_\_\_ shall be the Official Representative of the Joint Venture, and are granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the Joint Venture in the Eligibility Check, Bidding and Undertaking of the said contract, as fully and effectively and the Joint Venture may do and if personally present with full power of substitution and revocation.

That this Joint Venture Agreement shall remain in effect only for the above stated Contracts until terminated by both parties.

Done this \_\_\_\_\_ day of \_\_\_\_\_, in the year of our Lord \_\_\_\_\_.





Procuring Entity: **PHILIPPINE NUCLEAR RESEARCH INSTITUTE**

Name of the Project: **Establishment of Two-Storey Radiation Protection Services Facility**

Location of the Project: **PNRI Compound, Commonwealth Avenue, Diliman, Quezon City**

### **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] (15) minus value of all outstanding works or uncompleted portions of the project under ongoing contracts including, awarded contracts yet to be started coinciding with the contract to be bid.

The values of the domestic bidder's current assets and current liabilities shall be based on the latest Audited Financial Statements submitted to the BIR

Submitted by:

\_\_\_\_\_  
Name of Firm / Contractor

\_\_\_\_\_  
Signature of Authorized Representative

Date : \_\_\_\_\_

**NOTE:**

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

*Procuring Entity:* **PHILIPPINE NUCLEAR RESEARCH INSTITUTE**

*Name of the Project:* **Establishment of Two-Storey Radiation Protection Services Facility**

*Location of the Project:* **PNRI Compound, Commonwealth Avenue, Diliman, Quezon City**

### **Contractor's Organizational Chart for the Contract**

Submit Copy of the Organizational Chart that the Contractor intends to use to execute the Contract if awarded to him. Indicate in the chart the names of the Project Manager, Project Engineer, Bridge Engineer, Structural Engineer, Materials and Quality Control Engineer, Foreman and other Key Engineering Personnel.

Attached the required Proposed Organizational Chart for the contract as stated above



Procuring Entity: **PHILIPPINE NUCLEAR RESEARCH INSTITUTE**

Name of the Project: **Establishment of Two-Storey Radiation Protection Services Facility**

Location of the Project: **PNRI Compound, Commonwealth Avenue, Diliman, Quezon City**

**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:

Name and Address of Employer

Length of Service

_____	_____ 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: **PHILIPPINE NUCLEAR RESEARCH INSTITUTE**

Name of the Project: **Establishment of Two-Storey Radiation Protection Services Facility**

Location of the Project: **PNRI Compound, Commonwealth Avenue, Diliman, Quezon City**

**REPUBLIC OF THE PHILIPPINES )**

**CITY OF \_\_\_\_\_ ) S.S.**

**X-----X**

**BID-SECURING DECLARATION**

**Invitation to Bid/Request for Expression of Interest No.1:** *[Insert reference number]*

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

I/We<sup>2</sup>, 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<sup>3</sup>, if I/we have committed any of the following actions:
  - (i) Withdrawn my/our Bid during the period of bid validity required in the Bidding Documents; or
  - (ii) Fail or refuse to accept the award and enter into contract or perform any and all acts necessary to the execution of the Contract, in accordance with the Bidding Documents after having been notified of your acceptance of our Bid during the period of bid validity.
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 and Responsive Bid/Highest Rated and Responsive Bid<sup>4</sup>, and I/we have furnished the performance security and signed the Contract.

---

<sup>1</sup> Select one and delete the other.

<sup>2</sup> Select one and delete the other. Adopt same instruction for similar terms throughout the document.

<sup>3</sup> Issued by the GPPB through GPPB Resolution 03-2012 on 27 January 2012.

<sup>4</sup> Select one and delete the other.

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

~~QVHUW10(2),56~~  
**AUTHORIZED REPRESENTATIVE]**  
~~QVHUWVLJQDWRUVOHJDOFDSDFLW@~~  
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.  
\_\_\_\_\_ 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 \_\_\_\_.

## Omnibus Sworn Statement

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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 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 of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to represent it in the bidding for [Name of the Project] of the [Name of the Procuring Entity];

*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 and/or to represent the [Name of Bidder] in the bidding as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate issued by the corporation or the members of the joint venture)];

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:* I am 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

## ***ACKNOWLEDGMENT***

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

Notary Public  
Until 31 December 20\_\_\_\_  
PTR No. \_\_\_\_\_  
Issued at: \_\_\_\_\_  
Issued on: \_\_\_\_\_  
TIN No. \_\_\_\_\_

Doc. No. \_\_\_\_\_  
Page No. \_\_\_\_\_  
Book No. \_\_\_\_\_  
Series \_\_\_\_\_

\_\_\_\_\_ of \_\_\_\_\_.

Name of the Procuring Entity: **PHILIPPINE NUCLEAR RESEARCH INSTITUTE**

Name of the Project: **Establishment of Two-Storey Radiation Protection Services Facility**

Location of the Project: **PNRI Compound, Commonwealth Avenue, Diliman, Quezon City**

### **AUTHORITY OF SIGNATORY**

### **SECRETARY'S CERTIFICATE**

I, \_\_\_\_\_, a duly elected and qualified Corporate Secretary of \_\_\_\_\_ (Name of the Bidder), a corporation duly organized and existing under and by virtue of the law of the \_\_\_\_\_, DO HEREBY CERTIFY, that:

I am familiar with the facts herein certified and duly authorized to certify the same;

At the regular meeting of the Board of Directors of the said Corporation duly convened and held on \_\_\_\_\_ at which meeting a quorum was present and acting throughout, the following resolutions were approved, and the same have not been annulled, revoked and amended in any way whatever and are in full force and effect on the date hereof:

RESOLVED, that \_\_\_\_\_ (Name of the Bidder) be, as it hereby is, authorized to participate in the bidding of \_\_\_\_\_ (Name of the Contract) by the \_\_\_\_\_ (Name of the Procuring Entity); and that if awarded the Contract shall enter into a contract with the \_\_\_\_\_ (Name of the Procuring Entity); and in connection therewith hereby appoints \_\_\_\_\_ (Name of Representative), acting as duly authorized and designated representatives of \_\_\_\_\_ (Name of the Bidder), and granted full power and authority to do, execute and perform any and all acts necessary and/or to represent \_\_\_\_\_ (Name of the Bidder) in the bidding as fully and effectively as the \_\_\_\_\_ (Name of the Bidder) might do if personally present with full power of substitution and revocation and hereby satisfying and confirming all that my said representative shall lawfully do or cause to be done by virtue hereof;

RESOLVED FURTHER THAT, the Board hereby authorizes its President to:

- (1) execute a waiver of jurisdiction whereby the \_\_\_\_\_ (Name of the Bidder) hereby submits itself to the jurisdiction of the Philippine government and hereby waives its right to question the jurisdiction of the Philippine courts;
- (2) execute a waiver that the \_\_\_\_\_ (Name of the Bidder) shall not seek and obtain writ of injunctions or prohibition or restraining order against the AFP or any other agency in connection with this Contract to prevent and restrain the bidding procedures related thereto, the negotiating of and award of a contract to a successful bidder, and the carrying out of the awarded contract.

WITNESS the signature of the undersigned as such officer of the said \_\_\_\_\_ this \_\_\_\_\_.

\_\_\_\_\_  
(Corporate Secretary)

# ***ACKNOWLEDGMENT***

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

Notary Public  
Until 31 December 20\_\_\_\_  
PTR No. \_\_\_\_\_  
Issued at: \_\_\_\_\_  
Issued on: \_\_\_\_\_  
TIN No. \_\_\_\_\_

Doc. No. \_\_\_\_\_  
Page No. \_\_\_\_\_  
Book No. \_\_\_\_\_  
Series of \_\_\_\_\_.

Name of the Procuring Entity: **PHILIPPINE NUCLEAR RESEARCH INSTITUTE**  
Name of the Project: **Establishment of Two-Storey Radiation Protection Services Facility**  
Location of the Project: **PNRI Compound, Commonwealth Avenue, Diliman, Quezon City**  
**AUTHORITY OF SIGNATORY**

## ***SPECIAL POWER OF ATTORNEY***

I, \_\_\_\_\_, President of \_\_\_\_\_, a corporation incorporated under the laws of \_\_\_\_\_ with its registered office at \_\_\_\_\_, by virtue of Board Resolution No. \_\_\_\_\_ dated \_\_\_\_\_, has made, constituted and appointed \_\_\_\_\_ true and lawful attorney, for it and its name, place and stead, to do, execute and perform any and all acts necessary and/or represent \_\_\_\_\_ in the bidding of \_\_\_\_\_ as fully and effectively as corporation might do if personally present with full power of substitution and revocation and hereby confirming all that said representative shall lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ at \_\_\_\_\_.

Signed in the Presence of:

\_\_\_\_\_

### **ACKNOWLEDGMENT**

REPUBLIC OF THE PHILIPPINES )  
QUEZON CITY )SS.

BEFORE ME, a Notary Public for and in Quezon City, Philippines, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally appeared:

<u>NAME</u>	<u>CTC NO.</u>	<u>ISSUED AT/ON</u>
_____	_____	_____
_____	_____	_____

known to me and known to be the same person who executed the foregoing instrument consisting of \_\_\_\_\_ ( ) pages, including the page whereon the acknowledgments is written and acknowledged before me that the same is his free and voluntary act and deed and that of the Corporation he represents.

WITNESS MY HAND AND NOTARIAL SEAL, at the place and on the date first above written.

Notary Public  
Until 31 December 20\_\_\_\_  
PTR No. \_\_\_\_\_  
Issued at: \_\_\_\_\_  
Issued on: \_\_\_\_\_  
TIN No. \_\_\_\_\_

Doc. No. \_\_\_\_\_  
Page No. \_\_\_\_\_  
Book No. \_\_\_\_\_  
Series of \_\_\_\_\_

*Name of the Procuring Entity:* **PHILIPPINE NUCLEAR RESEARCH INSTITUTE**

*Name of the Project:* **Establishment of Two-Storey Radiation Protection Services Facility**

*Location of the Project:* **PNRI Compound, Commonwealth Avenue, Diliman, Quezon City**

### **Checklist of Financial Envelope Requirements for Bidders Second (2<sup>nd</sup>) Envelope**

**The 2<sup>nd</sup> Envelope shall contain the following:**

- ☐ Bid Form
- ☐ Duly Signed Bid Prices in the Bill of Quantities
- ☐ Duly Signed Detailed Estimates
- ☐ Duly Signed Cash Flow by Quarter and Payments Schedule

## Bid Form

Date: \_\_\_\_\_

IB<sup>8</sup> N<sup>o</sup>: \_\_\_\_\_

To: *[name and address of PROCURING ENTITY]*

Address: *[insert address]*

We, the undersigned, declare that:

- (a) We have examined and have no reservation to the Bidding Documents, including Addenda, for the Contract *[insert name of contract]*;
- (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 *[insert number]* 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;
- (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 *[Name of Project]* of the *[Name of the Procuring Entity]*.
- (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.

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<sup>8</sup> If ADB, JICA and WB funded projects, use IFB.

Name: \_\_\_\_\_

In the capacity of: \_\_\_\_\_

Signed: \_\_\_\_\_

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

Date: \_\_\_\_\_



## PROJECT : ESTABLISHMENT OF TWO-STOREY RADIATION PROTECTION SERVICES FACILITY

## SUBJECT : DETAILED COST ESTIMATE

ITEM NO	DESCRIPTION	QTY	MATERIAL COST			LABOR COST		TOTAL
		# Units	UM	P/Unit	Total	P/Unit	Total	
<b>A</b>	<b>General Requirements</b>							
1	Mobilization/Demobilization	1.00	lot					
2	Temporary Facilities	1.00	lot					
3	Bonds / Insurance	1.00	lot					
4	As-built Plans	1.00	lot					
5	Project Billboard	1.00	lot					
	<b>Total Cost of A - General Requirements</b>							
<b>B</b>	<b>Earthworks</b>	<b>252.00</b>	<b>sq.m.</b>					
1	Excavation of concrete foundation	393.42	cu.m.					
2	Gravel Bedding	64.00	cu.m.					
3	Filling Material	201.60	cu.m.					
4	Backfilling & Compaction	314.00	cu.m.					
5	Soil Poisoning	5.00	lit.					
	<b>Total Cost of B - Earthworks</b>							
<b>C</b>	<b>Concreting Works</b>	<b>135.77</b>	<b>cu.m.</b>					
1	Cement	950.00	bags					
2	Sand	68.00	m³					
3	Crushed Gravel	136.00	m³					
4	20mm dia. Rebars (7.50 mts.)	525.00	pcs					
5	20mm dia. Rebars (commercial size)	299.00	pcs					
6	16mm dia. Rebars (commercial size)	693.00	pcs					
7	12mm dia. Rebars (commercial size)	1,212.00	pcs					
8	10mm dia. Rebars (commercial size)	1,032.00	pcs					
9	GI tie wire	752.00	kgs					
	<b>Total Cost of C - Concreting Works</b>							
<b>D</b>	<b>Scaffolding and Formworks</b>	<b>227.00</b>	<b>sq.m.</b>					
1	2" x 4" coco lumber	903.00	bd.ft.					
2	2" x 3" coco lumber	1,684.00	bd.ft.					
3	2" x 2" coco lumber	2,156.00	bd.ft.					
4	1/2" thk marine plywood (1200x2400)	68.00	pcs					
5	CWN assorted	108.00	kgs					
	<b>Total Cost of D - Scaffolding and Formworks</b>							
<b>E</b>	<b>Masonry Works</b>							
<b>E.1</b>	<b>6" thk Masonry Wall</b>	<b>570.00</b>	<b>sq.m.</b>					
1	6" thk CHB (non load bearing)	6,387.00	pc					
2	Portland cement	455.00	bags					
3	Sand	42.00	cu.m.					
4	GI tie wire	24.00	kgs.					
5	10 mmø RSB	307.00	pcs					
<b>E.2</b>	<b>4" thk Masonry Wall</b>	<b>564.00</b>	<b>sq.m.</b>					
1	4" thk CHB (non load bearing)	2,779.00	pc					
2	Portland cement	198.00	bags					
3	Sand	18.00	cu.m.					
4	GI tie wire	11.00	kgs.					
5	10 mmø RSB	133.00	pcs					
<b>E.3</b>	<b>Plastering Works</b>	<b>1,057.50</b>	<b>sq.m.</b>					
1	Concrete	360.00	bag					
2	Fine Sand	36.00	cu.m.					
	<b>Total Cost of E - Masonry Works</b>							
<b>F</b>	<b>Ceiling Works</b>							
<b>F.1</b>	<b>Gypsum Ceiling</b>	<b>419.15</b>	<b>sq.m.</b>					
1	Carrying Channel 12mmx38x1.0x5M	110.00	pc					
2	Furring Channel (hat type) 19mm x 50mm x 0.50 x 5M	215.00	pc					
3	Wall Angle 25x25x0.5mm (3M)	22.00	pc					
4	Steel angle	9.00	pc					
5	W Clip (G.I.)	27.00	pc					
6	Rod Joiner	27.00	pc					

7	Hanger Rod #8	5.00	kg					
8	Blind Rivets 1/8x3/8	8.00	box					
9	Gypsum board moisture res. 12mm	190.00	pcs					
10	Mesh Tape 2" x 230"	8.00	roll					
11	Joint Compound - 28kg/pail	5.00	pail					
12	Gypsum screw #6	22.00	box					
13	Scouring Knife	5.00	pc					
14	Drill bit 1/8"	5.00	pc					
15	Screw bit #2	5.00	pc					
F.2	<b>Perforated Ceiling</b>	<b>58.50</b>	<b>sq.m.</b>					
1	600x600 Perforated metal ceiling	414.00	pc					
	Ga.22 Galvanised, Round hole mill fin.							
2	12mmX38mmX5m 1.0 thk. Carrier	11.00	pc					
3	19mmX50mmX5m 0.6 thk. Cross Tee	33.00	pc					
4	Suspension rod #8 (9mts)	22.00	kg					
5	1" x 1" clip angle	12.00	pc					
6	25x25x3m W-Shaped wall angle	10.00	pc					
7	Screw with Tox	106.00	pc					
	<b>Total Cost of F - Ceiling Works</b>							
G	<b>Steel Works</b>							
1	2L 75x75x4.5MM	37.00	pc					
2	L 75x75x4.5MM	42.00	pc					
3	L 50x50x4.5MM	33.00	pc					
4	150mm x 50mm x 15mm x 1.5mm	167.00	pc					
	6.00m C-Purlins							
5	L38mm x 38mm x 1.3mm x 6.00m	6.00	pc					
	Angular cleat							
6	Sagrod 12mmØ x 6.00m	19.00	pc					
7	Cross Bracing 16mmØ x 6.00m	24.00	pc					
8	Turn buckle 5/8"	12.00	pc					
9	0.2 x 0.20m 10mm thk. Base Plate	8.00	pc					
10	Flat Bar 1" x ¼" thk x 6.00m	18.00	pc					
	Fascia Board Frame							
11	Anchor bolts 12mmØ x 150mm	32.00	pc					
12	Welding Rod	2.00	box					
13	Cutting disc	6.00	pc					
14	Grinding disc	6.00	pc					
15	Hacksaw blade	8.00	pc					
16	Red Lead Primer	10.00	gal					
	<b>Total Cost of G - Steel Works</b>							
H	<b>Roofing Works</b>							
1	0.50mm Colored Long Span G.I.	295.00	li.m.					
	sheet Roofing and Accessories							
2	Pre-painted flashing 0.50m thk x	8.00	pc					
	0.60m x 2.44m							
3	Pre-painted Ridge roll 0.50m thk x	12.00	pc					
	0.60m x 2.44m							
4	Stainless Steel Roof Gutter Ga#24	17.00	pc					
5	Hardi senepa 12mm x 12" x 8'	36.00	pc					
6	10mm thk. x 1.00m x 50.00m w/ One	5.00	roll					
	side aluminum roofing insulation							
7	Teckscrew	2,500.00	pc					
8	Blind rivet	800.00	pc					
9	S-type	350.00	pc					
10	Rubber sealant	10.00	can					
11	1"x1" G.I. Screen (support for insulation	12.00	roll					
12	Touch-up paint	3.00	tube					
	<b>Total Cost of H - Roofing Works</b>							
I	<b>Doors and Windows</b>							
1	D-1 Aluminum Casement Door	1.00	set					
	Analok finish 6mm thk. (2.10x1.00M)							
2	D-2 Aluminum Casement Door	4.00	set					
	Analok finish 6mm thk. (2.10x0.90M)							

3	D-3 Hollow Steel Door with epoxy paint finish (2.10x0.90M)	3.00	set					
4	D-4 Panic Steel Door with epoxy paint finish (2.10x0.90M)	1.00	set					
5	D-5 Wood laminated door & Jamb (2.10x0.80M)	4.00	set					
6	D-6 Steel Casement Louver Door Galavnived finish (2.10x1.20M)	1.00	set					
7	W-1 Aluminum Casement window Analok finish 6mm thk clear glass (2.40x1.30M)	6.00	set					
8	W-2 Aluminum Casement window Analok finish 6mm thk clear glass (3.00x1.30M)	4.00	set					
9	W-3 Aluminum Casement window Analok finish 6mm thk clear glass (3.90x1.20M)	2.00	set					
10	W-4 Aluminum Casement window Analok finish 6mm thk clear glass (1.80x1.30M)	4.00	set					
11	W-5 Aluminum Casement window Analok finish 6mm thk clear glass (1.20x1.30M)	3.00	set					
12	W-6 Aluminum Casement window Analok finish 6mm thk clear glass (0.60x0.60M)	1.00	set					
13	W-7 Aluminum Casement window Analok finish 6mm thk clear glass (1.20x0.60M)	5.00	set					
<b>Total Cost of I - Doors and Window</b>								
<b>J</b>	<b>Specialty Works</b>							
<b>J.1</b>	<b>S.S. Handrail @ Patio (Mirrorized)</b>							
1	Tubular S.S. 62mm dia. 20'	1.00	pc					
2	Tubular S.S. 50mm dia. 20'	1.00	pc					
3	Tubular S.S. 37.5mm dia. 20'	3.00	pc					
4	Tubular S.S. 25mm dia. 20'	5.00	pc					
5	S.S. Half moon cap	4.00	pc					
6	S.S. Flange	6.00	pc					
7	S.S. Flange cover	6.00	pc					
8	Cutting disk	1.00	pc					
9	grinding disk	1.00	pc					
10	Hacksaw blade	1.00	pc					
<b>J.2</b>	<b>S.S. Handrail @ Stairwell (Mirrorized)</b>							
1	Tubular S.S. 62mm dia. 20'	2.00	pc					
2	Tubular S.S. 50mm dia. 20'	2.00	pc					
3	Tubular S.S. 37.5mm dia. 20'	5.00	pc					
4	Tubular S.S. 25mm dia. 20'	8.00	pc					
5	S.S. Half moon cap	6.00	pc					
6	S.S. Flange	8.00	pc					
7	S.S. Flange cover	8.00	pc					
8	8mm thk Temperd glass panels (680mm x 850mm)	8.00	pc					
9	Cutting disk	2.00	pc					
10	grinding disk	2.00	pc					
11	Hacksaw blade	2.00	pc					
<b>J.3</b>	<b>Granite Stair Tread</b>							
1	Granite Tiles 600x600	160.00	pcs					
2	Solid Brass Nosing 2"	40.00	pcs					
3	Tile Adhesive	35.00	bag					
4	Tile Grout	10.00	pack					
<b>J.4</b>	<b>Wall Tiles</b>							
1	3" x 3" x 12' S4S K.D moulding	8.00	pc					

2	12" x 12" Glass Mosaic Tiles	200.00	pc					
3	10 x 16" Deco Ceramic Tiles	420.00	pc					
4	Tile Adhesive	60.00	bag					
5	Grout	10.00	pack					
J.5	<b>Facial Mirrors</b>							
1	Facial Mirror (1.67x0.92)	5.00	pcs					
2	Marine Plywood 3/4" thk. (backing)	5.00	pcs					
3	Screw	45.00	pcs					
4	Construction Adhesive	3.00	tube					
J.6	<b>Modular Partition</b>							
1	Black-core Phenolic Panels	8.00	set					
	300mm x 1800mm							
2	Black-core Phenolic Panels	8.00	set					
	500mm x 1650mm							
3	Black-core Phenolic Panels	4.00	set					
	720mm x 1800mm							
4	Black-core Phenolic Panels	4.00	set					
	1100mm x 1800mm							
5	Black-core Phenolic Panels	4.00	set					
	1300mm x 500mm							
6	Phenolic Panels (700x350)	4.00	set					
7	Angle Connector	12.00	pcs					
8	Wall Connector	18.00	pcs					
9	Tee Connector	4.00	pcs					
10	LC Leg	4.00	pcs					
11	Screws	120.00	pcs					
J.7	<b>Granite Counter Top</b>							
1	Granite Slab 19mm thk.	4.00	sq. m.					
2	Granite splash board 19mm thk.	8.00	pcs					
3	Granite fascia board 19mm thk.	8.00	pcs					
4	Steel Framing Angle Bar (50x50x6)	10.00	pcs					
5	Marine Plywood Backing (3/4" thk)	4.00	pcs					
6	Sealant	2.00	tube					
7	Texscrew	35.00	pcs					
	<b>Total Cost of J - Specialty Works</b>							
K	<b>Thermal &amp; Moisture Protection</b>							
	<b>(For Toilet areas)</b>							
1	Asphalt torch applied Waterproofing	48.00	sq.m.					
	membrane (3mm thk.)							
2	Cement (floor topping)	25.00	bags					
3	Sand (floor topping)	3.00	cu.m.					
4	WP Admixture for Concrete	25.00	bags					
5	Sealant Constuction grade	8.00	tube					
	<b>Total Cost of K - Thermal &amp; Moisture Protection</b>							
L	<b>Architectural Finishes</b>							
L.1	<b>Rubbed Concrete</b>	<b>14.80</b>	<b>sq.m.</b>					
1	Cement	2.00	bags					
L.2	<b>Granite Floor Finish &amp; Wall Finish</b>	<b>620.00</b>	<b>sq.m.</b>					
1	Granite Floor Tiles, Ordinary	1,720.00	pcs					
	Polished Glazed (600x600mm)"Beige"							
2	Tile Adhesive	380.00	bag					
3	Tile Grout	60.00	pack					
4	Polished Granite (600x600mm)"Black"	72.00	pc					
5	Polished Granite (600x600mm)"Maroon"	13.00						
L.3	<b>Concrete Floor topping</b>	<b>489.00</b>	<b>sq.m.</b>					
1	Cement	168.00	bag					
2	Sand (floor topping)	18.00	cu.m.					
L.4	<b>Plaster Compound</b>	<b>944.75</b>	<b>sq.m.</b>					
1	Casting Plaster Compound (2kgs)	40.00	bag					
L.5	<b>Epoxy Paint with Silica Sand</b>							
1	5 Coats "Pioneer Brand"	15.00	sq.m.					

	<b>Total Cost of L - Architectural Finishes</b>						
<b>M</b>	<b>Painting Works</b>						
<b>M.1</b>	<b>Ceiling - Gypsum board</b>	<b>419.15</b>	<b>sq.m.</b>				
<b>1</b>	flat latex (primer)	18.00	gal				
<b>2</b>	semigloss latex (top coat)	30.00	gal				
<b>3</b>	tinting color	8.00	can				
<b>4</b>	patching compound	18.00	kgs				
<b>5</b>	Boral Powder putty	11.00	gals.				
<b>6</b>	sand paper	26.00	pcs				
<b>7</b>	paint brush	8.00	pcs				
<b>8</b>	Paint Roller	5.00	pcs				
<b>9</b>	Roller Pan	3.00	pcs				
<b>10</b>	Putty Knives	16.00	pcs				
<b>11</b>	Wire Brush	4.00	pcs				
<b>12</b>	Reusable paint bucket	8.00	pcs				
<b>13</b>	Painting pads	4.00	pcs				
<b>14</b>	Masking tape	12.00	rolls				
<b>15</b>	Waste Cloth	3.00	kgs				
<b>M.2</b>	<b>Wall - Interior masonry</b>	<b>563.56</b>	<b>sq.m.</b>				
<b>1</b>	Concrete Neutralizer	12.00	gal				
<b>2</b>	Skim Coat	80.00	bag				
<b>3</b>	flat latex (primer)	25.00	gal				
<b>4</b>	semigloss latex (top coat)	41.00	gal				
<b>5</b>	Quick Dry Enamel Paint	8.00	gal				
<b>6</b>	tinting color	11.00	can				
<b>7</b>	patching compound	23.00	kgs				
<b>8</b>	sand paper	35.00	pcs				
<b>9</b>	paint brush	8.00	pcs				
<b>10</b>	Paint Roller	6.00	pcs				
<b>11</b>	Roller Pan	3.00	pcs				
<b>12</b>	Putty Knives	20.00	pcs				
<b>13</b>	Wire Brush	6.00	pcs				
<b>14</b>	Reusable paint bucket	12.00	pcs				
<b>15</b>	Painting pads	6.00	pcs				
<b>16</b>	Masking tape	16.00	rolls				
<b>17</b>	Waste Cloth	6.00	kgs				
<b>M.3</b>	<b>Wall - Exterior masonry</b>	<b>454.50</b>	<b>sq.m.</b>				
	<b>(Including concrete canopy &amp; overhang)</b>						
<b>1</b>	Concrete Neutralizer	10.00	gal				
<b>2</b>	Skim Coat	64.00	bag				
<b>3</b>	flat latex (primer)	20.00	gal				
<b>4</b>	semigloss latex (top coat)	33.00	gal				
<b>5</b>	Quick Dry Enamel Paint	6.00	gal				
<b>6</b>	tinting color	12.00	can				
<b>7</b>	patching compound	25.00	kgs				
<b>8</b>	sand paper	37.00	pcs				
<b>9</b>	paint brush	8.00	pcs				
<b>10</b>	Paint Roller	6.00	pcs				
<b>11</b>	Roller Pan	3.00	pcs				
<b>12</b>	Putty Knives	16.00	pcs				
<b>13</b>	Wire Brush	5.00	pcs				
<b>14</b>	Reusable paint bucket	10.00	pcs				
<b>15</b>	Painting pads	5.00	pcs				
<b>16</b>	Masking tape	13.00	rolls				
<b>17</b>	Waste Cloth	4.00	kgs				
	<b>Total Cost of M - Painting Works</b>						
<b>N</b>	<b>Sanitary &amp; Plumbing Works</b>						
<b>N.1</b>	<b>Plumbing Roughing-ins</b>						
<b>1</b>	1/2"ø pipe PPR PN10	6.00	lm				
<b>2</b>	1/2"ø elbow PPR PN10	10.00	pcs				
<b>3</b>	1/2"ø Coupling PPR PN10	4.00	pcs				

4	1/2"ø threaded coupling PPR PN10	3.00	pcs					
5	1/2"ø threaded elbow PPR PN10	4.00	pcs					
6	1/2"ø tee PPR PN10	3.00	pcs					
7	1/2" pipe PPR PN10	3.00	lm					
8	1 1/2" elbow PPR PN10	4.00	pcs					
9	1 1/2" threaded coupling PPR PN10	4.00	pcs					
10	1" x 1/2" reducer PPR PN10	3.00	pcs					
11	teflon tape	4.00	roll					
12	PPR solvent	2.00	can					
13	1"ø pipe PPR PN10	2.00	lm					
14	1"ø elbow PPR PN10	2.00	pcs					
15	1"ø threaded coupling PPR PN10	2.00	pcs					
16	Hangers/Suports	12.00	pcs					
<b>N.2</b>	<b>Plumbing Fixtures</b>							
1	Faucet - Aluminum	1.00	pcs					
2	Grail Single Lever Lavatory Faucet w/ Pop-Up(pillar) Loop Handle	6.00	pcs					
3	Hose Bibb - Chrome	3.00	pcs					
4	Angle Valve - Universal	8.00	pcs					
5	Flexible Hose	8.00	pcs					
6	1"ø gate valve - Heavy Duty	1.00	pcs					
7	3/4"ø gate valve - Heavy Duty	5.00	pcs					
<b>N.3</b>	<b>Sanitary Roughing-ins</b>							
1	6"x6" S.S. Floor Drain	5.00	pcs					
2	4"ø PVC Pipe	8.00	pcs					
3	4"ø PVC Coupling	3.00	pcs					
4	4"ø PVC Cleanout	4.00	pcs					
5	4"x4"ø PVC Wye	8.00	pcs					
6	4"x3"ø PVC Wye	10.00	pcs					
7	4"ø x 1/8 PVC Bent Elbow	4.00	pcs					
8	4"ø PVC Elbow	4.00	pcs					
9	3"ø PVC Pipe	6.00	pcs					
10	3"ø PVC Coupling	3.00	pcs					
11	3"ø PVC Cleanout	2.00	pcs					
12	3"ø PVC P-Trap	8.00	pcs					
13	3"x3"ø PVC Wye	6.00	pcs					
14	3"x2"ø PVC Wye	3.00	pcs					
15	3"x2"ø PVC Tee	12.00	pcs					
16	3"ø x 1/8 PVC Bent Elbow	4.00	pcs					
17	3"ø PVC Elbow	6.00	pcs					
18	2"ø PVC Pipe	4.00	pcs					
19	2"ø PVC Elbow	24.00	pcs					
20	PVC Solvent	3.00	can					
21	Sealant Construction Grade	4.00	tube					
22	Hangers/Suports	15.00	pcs					
<b>N.4</b>	<b>Sanitary Fixtures</b>							
1	Water Closet	8.00	pcs					
2	Lavatory	6.00	pcs					
3	Urinal	3.00	pcs					
4	Chrome Bidet spray set	8.00	pcs					
5	Tissue Holder	8.00	pcs					
6	Soap Holder	6.00	pcs					
7	Tissue Dispenser	4.00	pcs					
<b>N.5</b>	<b>Storm Drainage</b>							
1	Roof drain	8.00	pcs					
2	4"ø PVC Pipe	12.00	pcs					
3	4"ø PVC Coupling	6.00	pcs					
4	4"ø PVC Cleanout	6.00	pcs					
5	4"x4"ø PVC Wye	6.00	pcs					
6	4"ø PVC Elbow	6.00	pcs					
7	PVC Solvent	2.00	can					
8	S.S. Clamps/Supports	24.00	pcs					
9	Catch Basin	7.00	set					

10	300mmø Concrete Pipe	2.00	length					
11	250mmø Concrete Pipe	4.00	length					
12	200mmø Concrete Pipe	6.00	length					
<b>N.6</b>	<b>Septic Tank</b>							
1	Excavation works	11.00	cu.m.					
2	Cement	44.00	bag					
3	Sand	5.00	cu.m.					
4	Gravel	2.00	cu.m.					
5	12mm dia. Rebars (commercial size)	19.00	pc					
6	10mm dia. Rebars (commercial size)	17.00	pc					
7	4" Concrete Hollow Blocks	225.00	pc					
8	6" Concrete Hollow Blocks	80.00	pc					
9	Tie Wire #16	1.00	kg					
10	2" x 3" coco lumber	40.00	bd					
11	2" x 2" coco lumber	65.00	bd					
12	3/4" thk marine plywood (1200x2400)	3.00	pc					
13	CWN assorted	2.00	kg					
14	PVC 100mm ϕ x 3.00m S-600	1.00	pc					
15	PVC elbow 100mmϕ	3.00	pc					
16	PVC Clean Out 100mmϕ	4.00	pc					
	<b>Total Cost of N - Sanitary &amp; Plumbing</b>							
<b>0</b>	<b>Electrical Works</b>							
	<b>(Building)</b>							
<b>O.1</b>	<b>Lighting Fixtures</b>							
1	LED linear tube with louvered reflector, 2x20W	57.00	sets					
2	LED box type luminaire, 9W	18.00	sets					
3	LED pinlight, wide beam angle, 9W	30.00	sets					
<b>O.2</b>	<b>Wiring Devices &amp; Other Fixtures</b>							
1	Convenience outlet, duplex, universal	52.00	pc					
2	Convenience outlet, floor mounted	4.00	pc					
3	Convenience outlet, weather proof	2.00	pc					
4	Convenience outlet, AC 3-prong, heavy duty	14.00	pc					
5	Switch w/ plate, 1- gang	11.00	pc					
6	Switch w/ plate, 2- gang	14.00	pc					
7	Switch w/ plate, 3- gang	1.00	pc					
8	Switch w/ plate, 3-way	2.00	pc					
9	LED emergency light	5.00	pc					
10	LED Exit light	3.00	set					
11	Exhaust fan, ceiling mounted	6.00	set					
<b>O.3</b>	<b>Wires and Cables</b>							
1	Copper wire, THHN 2.0 sq. mm.	13.00	rolls					
2	Copper wire, THHN 3.5 sq. mm.	40.00	rolls					
3	Copper wire, THHN 5.5 sq. mm.	32.00	rolls					
4	Copper wire, THHN 8.0 sq. mm	3.00	mts					
5	Copper wire, THHN 22 sq. mm	6.00	mts					
6	Copper wire, THHN 30 sq. mm	3.00	mts					
7	Copper wire, THHN 50 sq. mm	6.00	mts					
8	Copper wire, THHN 60 sq. mm	20.00	mts					
9	Copper wire, THHN 100 sq. mm	60.00	mts					
<b>O.4</b>	<b>Roughing-ins</b>							
1	uPVC pipe, 3mx20mm dia.	120.00	pcs					
2	uPVC elbow, 20mm dia	30.00	pcs					
3	RSC pipe, 3mx32mm dia.	1.00	pcs					
4	RSC elbow, 32mm dia	2.00	pcs					
5	RSC pipe, 3mx38mm dia.	1.00	pcs					
6	RSC elbow, 38mm dia	2.00	pcs					
7	RSC pipe, 3mx63mm dia.	10.00	pcs					
8	RSC elbow, 63mm dia	3.00	pcs					
9	Box, utility, 2"x4"	135.00	pcs					
10	Box, junction, 2"x4"	132.00	pcs					
11	Secondary rack spool insulator,	2.00	pcs					

	3-phase with accs							
12	Ground rod 10'x5/8' copper bonded	1.00	pcs					
13	Ground rod clamp	2.00	pcs					
O.5	<b>Panel Board &amp; Control Panel</b>							
1	Main circuit breaker 225 AT, 3PST, 240V, 60 hz, MCCB. w/ ff. branches:							
	1- 125AT, 3P	1.00	assy					
	1- 100AT, 3P							
2	Power Panel , Lugs only w/ ff. branches:							
	19 - 30AT, 2P	1.00	assy					
3	Power and Lighting Panel, Lugs only: w/ ff. branches:							
	7 - 20AT, 2P	1.00	assy					
	13- 30AT, 2P							
4	Manual Transfer Switch							
	100AT, 3 PDT, 240 V	1.00	set					
O.6	<b>Auxiliary Roughing-ins</b>							
1	uPVC Pipe, 3n x 15mm dia.	191.00	pcs					
2	uPVC Elbow 15mm dia.	177.00	pcs					
	<b>Total Cost of O - Electrical Works</b>							
	<b>TOTAL DIRECT COST</b>							

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