

## TERMS OF REFERENCE

### FOR THE PROCUREMENT AND IMPLEMENTATION OF THE SITE DEVELOPMENT, PHASE I - CONSTRUCTION OF ROAD NETWORK (TAKE-OVER OF CONTRACT) OF PHILIPPINE SCIENCE HIGH SCHOOL - MIMAROPA REGION CAMPUS BARANGAY RIZAL, ODIONGAN, ROMBLON

#### I. BACKGROUND

The PHILIPPINE SCIENCE HIGH SCHOOL-MIMAROPA Region Campus (PSHS-MRC) through the approved allocation for capital outlays under FY 2016 General Appropriations Act intends to apply the sum of **FOUR MILLION TWO HUNDRED NINETY-TWO THOUSAND NINE HUNDRED SIXTY-EIGHT AND 19/100 PESOS (₱4,292,968.19)** being the approved budget for the procurement and implementation of **Site Development, Phase I - Construction of Road Network (Take-Over of Contract)** with a project duration of **90** calendar days.

#### II. PROJECT DESCRIPTION AND LOCATION

The project will involve the **Site Development, Phase I - Construction of Road Network (Take-Over of Contract)** of Philippine Science High School - MIMAROPA Region Campus, Rizal, Odiongan, Romblon pursuant to the technical specifications indicated in this Terms of Reference, and the PSHS System Building Standards and Specifications, enclosed herein.

The project will have an Approved Budget for the Contract (ABC) of **FOUR MILLION TWO HUNDRED NINETY-TWO THOUSAND NINE HUNDRED SIXTY-EIGHT AND 19/100 PESOS (₱4,292,968.19)** including all taxes for the project mentioned above.

#### III. CONCEPTUAL DESIGN

##### The Construction Project

##### A. Site Development (Construction of Road Network)

The layout of the road network is 200 Linear meters with 9 meters wide (including the 1-meter wide sidewalks for both sides) with 20 cm thickness. The sidewalk and road network should also be accessible for PWDs connecting facilities through pedestrian lanes and loading and unloading zones. It must have a .50-meter curb and gutter on each side. The length of each side of the road should be of the same length as the main entrance and exit gates. Construction of road canal drainage on each side should be included in the scope of work.

#### IV. SELECTION OF CONTRACTOR

The procurement and implementation of the project shall be in accordance with the provisions of RA 9184. Bidding process shall be conducted by the Bids and Awards Committee (BAC) to be assisted by the TWG. The campus director of PSHS-MRC shall create the Design and Build Committee (DBC) to be composed of highly technical personnel in the field of architecture and engineering/construction. The DBC and TWG shall prepare the design brief

and performance specifications and parameters, review the detailed engineering design, and assist the BAC in the evaluation of technical and financial proposals in accordance with the criteria set.

## **A. Eligibility Requirements**

The eligibility requirements in the Design and Build for infrastructure projects shall comply with the applicable provisions of Section 23-24 of the IRR of RA 9184.

### **a. Eligibility Documents**

#### **Class “A” Documents**

- i. PhilGEPS Registration (For Platinum member, attach “ANNEX A”)
- ii. Registration from the Securities and Exchange Commission ( SEC), Department of trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives;
- iii. Mayor’s permit issued by the city or municipality where the principal of business of the prospective bidders is located;
- iv. Statement of all its on-going and completed government and private contracts within ten (10) years from the submission of bids
  - a. CPES rating or
  - b. Certificate of Completion
- iv. PCAB licenses and registration for the type and cost of the contract for this project (Small B- license Category C & D) and contractor’s registration certificate from DPWH;
- v. Audited financial statement, stamped “received” by the BIR for the preceding calendar year;
- vi. NFCC computation or CLC.
- vii. Tax clearance

#### **Class “ B “ Documents**

### **a. Joint Venture agreement, if applicable.**

### **b. Technical Documents**

- i. Bid Security (in any form)
- ii. Project Requirements
  - ii1. Construction Method
  - ii2. Value engineering analysis of construction method. Prospective bidders shall prepare a value engineering analysis report of their proposed construction method to be applied for the PROJECT. Importance shall be made on the following criteria:
    - Cost-saving, measured on a per square meter average figure
    - Time-saving in construction duration, measured using the HOPE approved PERT/CPM of the project.
  - ii3. Organizational Chart
  - ii4. List of Contractor’s Personnel with complete qualification and experience data
  - ii5. List of Contractor’s Equipment units, which are owned, leased, and/or under purchase agreements, supported by certification of availability of equipment from the equipment lessor/vendor for the duration of the project.

- ii6. Manpower Schedule
- ii7. Equipment Utilization Schedule
- ii8. Bar Chart and S-curve
- ii9. Construction Safety and Health Program
- ii10. PERT-CPM
- iii. Omnibus Sworn Statement

**c. Financial Component**

Financial Bid Form

- i. Bill of Quantities
- ii. Detailed Cost Estimates
- iii. Summary Sheet indicating the unit prices of materials, labor rates and equipment rental
- iv. Payment schedule

**B. Eligibility Criteria**

- a) The eligibility of contractors shall be based on the legal, technical and financial requirements above-mentioned. In the technical requirements, the contractor (as solo or in joint venture/consortia) should be able to comply with the experience requirements under the IRR of RA 9184, where one of the parties (in a joint venture/consortia) should have at least one similar project in construction, with at least 50% of the cost of the Approved Budget for the Contract (ABC).
- b) If the bidder has no experience in construction projects on its own, it may enter into subcontracting, partnerships or joint venture with engineering firms for the portion of the contract.

**v. CONSTRUCTION PERSONNEL**

The key professionals and the respective qualifications of the **CONSTRUCTION PERSONNEL** shall be as follows:

**A. Project Manager**

The Project Manager shall be a licensed architect or engineer with at least five (5) years relevant experience on similar and comparable projects in different locations. The Project Manager should have a proven record of managerial capability through the directing/managing of major civil engineering works, including projects of a similar magnitude.

**B. Project Engineer/ Architect**

The Project Engineer/Architect shall be a licensed architect or engineer with at least five (5) years of experience in similar and comparable projects and shall preferably be knowledgeable in the application of rapid construction technologies.

**C. Materials Engineer**

The Materials Engineer must be duly accredited with at least five (5) years of experience in similar and comparable projects and shall preferably be knowledgeable in the application of rapid construction technologies.

**D. Electrical Engineer**

The Electrical Engineer must be a registered Professional Electrical Engineer with at least five (5) years of experience in the design of lighting, power distribution and preferably knowledgeable in developments in emergent efficient lighting technologies and energy management.

**E. Electronics Engineer**

The Electronics Engineer must be a registered Professional Electronics Engineer with at least five (5) years of experience in the related field knowledgeable in communication systems (specifically structured and local area network cabling, PABX), building management systems.

**F. Mechanical Engineer**

The Mechanical Engineer must be duly-licensed with at least five (5) years of experience in similar and comparable projects in the installation of HVAC and fire protection.

**G. Sanitary Engineer**

The Sanitary Engineer must be duly-licensed with at least five (5) years of experience in similar and comparable projects in the installation of building water supply and distribution, plumbing.

**H. Foreman**

The Foreman must have at least five (5) years of experience in similar and comparable projects and shall preferably be knowledgeable in the application of Green Building technologies.

**I. Safety Officer**

The safety officer must be an accredited safety practitioner by the Department of Labor and Employment (DOLE) and has undergone the prescribed 40 hour Construction Safety and Health Training (COSH).

The above key personnel listed are required. The **CONTRACTOR** may, as needed and at its own expense, add additional professionals and/or support personnel for the optimal performance of all Construction Services, as stipulated in these Terms of Reference, for the PROJECT. Prospective bidders shall attach each individual's resume and PRC license of the (professional) staff, proof of qualifications, and related documents as necessary.

**VI. DETAILED ENGINEERING REQUIREMENT**

1. Upon award of the contract within a period of 30 Calendar Days, the winning bidder shall be responsible for the preparation and submission of all necessary detailed engineering investigations and surveys in accordance with the provisions of Annex "A" of this IRR (with the exception of the Bidding Documents and the ABC).
2. The procuring entity shall ensure that all the necessary schedules with regard to the submission, confirmation and approval of the detailed engineering and the details of the construction methods and procedures shall be included in the contract documents.
3. The procuring entity shall review, order rectification, and approve or disapprove - for implementation only - the plans within these schedules. All

instructions for rectification shall be in writing stating the reasons for such rectification. The contractor shall be solely responsible for the integrity of the detailed engineering and the performance of the structure irrespective of the approval/confirmation by the procuring entity.

## **VII. SCOPE OF WORKS AND PROJECT IMPLEMENTATION**

### **A. Construction Phase**

- a) Implements all works indicated in the approved construction drawings and documents. All revisions and deviation from the approved plans, especially if it shall impact the overall cost of the project, shall be subject for approval.
- b) Provides soil filling, grading and other soil protection measures of the building and other elements of the site, in response to the results of soil and materials testing.
- c) Constructs the buildings and other necessary structures, complete with utilities and finishes, resulting in operable and usable structures.
- d) Provides protection or relocation of existing trees indigenous to the area, and proper removal and replacement of all introduced trees and vegetation affected by the construction.
- e) Layouts piping, conduits, manholes, boxes and other lines for utilities including tapping to existing utility lines. Facilitate the connection of all utilities (power, water, sewer, structured cabling and telephone) with their corresponding utility companies. All application fees shall be included in the project cost.
- f) Installs fire protection systems and fixtures, fire extinguishers, emergency lights and lighted fire exit signs as required by applicable laws.
- g) Prepares shop-drawings for approval.
- h) Coordinates with the B&D Committee regarding scheduling of delivery and installation of all owner-furnished materials and equipment during construction.
- i) Conducts all necessary tests (to be required by B&D Committee) and issue reports of results.
- j) Rectifies punch-listing works to be inspected and issued by the B&D Committee and/or the End-user.
- k) Complies with the DOLE-OSH requirements and submit periodic reports concerning occupational safety and health.
- l) Provides all other necessary documents that shall be required by the B&D Committee.

### **D. Post Construction Phase**

- a) Prepares of as-built plans
- b) Turn-overs of all manuals, certificates and warranties of installed items.
- c) Secures building certificate of occupancy and fire safety inspection certificate

### **E. Variation Orders**

Any errors, omissions, inconsistencies, inadequacies or failure submitted by the contractor that do not comply with the requirements shall be rectified, resubmitted and reviewed at the contractor's cost. If the Contractor wishes to modify any design or document, reviewed and approved, the contractor shall notify the procuring entity within a reasonable period of time and shall shoulder the cost of such changes.

- a. As a rule, changes in design and construction requirements shall be limited only to those that have not been anticipated in the contract documents prior to contract signing and approval. The following guidelines shall govern approval for change or variation orders:
  - i. Change Orders resulting from design errors, omissions or non-conformance with the performance specifications and parameters and the contract documents by the contractor shall be implemented by the contractor at no additional cost to the procuring entity.
  - ii. Provided that the contractor suffers delay and/or incurs costs due to changes or errors in the procuring entity's performance specifications and parameters, he shall be entitled to either one of the following:
    - a. an extension of time for any such delays under Section 10 of Annex "E"; or
    - b. Payment for such costs as specified in the contract documents, provided, that the cumulative amount of the variation order does not exceed ten percent (10%) of the original contract

#### **F. DEFECTS AND LIABILITY**

- a. All projects shall have a minimum Defects Liability Period of one (1) year after contract completion or as provided for in the contract documents.
- b. The contractor shall be held liable for structural defects and/or failure of the completed project within the warranty periods specified in Section 62.2.3.217 of the IRR.

#### **VIII. OVERALL PROJECT TIME SCHEDULE**

The CONTRACTOR shall propose the most reasonable time schedule for the completion of the project. It is expected that this period will not exceed 90 **calendar days** for the Construction Phase.

#### **IX. THE IMPLEMENTING AGENCY'S GENERAL RESPONSIBILITY**

The implementing agency for the project is the Campus Director of PSHS-MRC with final approval for all decisions and actions from the PSHS System Office of the Executive Director through the Build and Design Committee. The B&D Committee shall:

- a) Prepare the design brief for the project in accordance with PSHS Systems' policies, existing codes, traditions, standards, and the conditions and design criteria enumerated in the Terms of Reference.
- b) Coordinate with CONTRACTOR, and the Campus Director of PSHS-MRC with regards to implementation of the project.
- c) Assist in the coordination of the CONTRACTOR with various utility agencies during implementation phases of the project.
- d) Conduct regular coordination meetings between the CONTRACTOR and PSHS-MRC to facilitate the implementation of the project.

## **X. THE CONTRACTOR'S GENERAL RESPONSIBILITY**

- a) The CONTRACTOR shall certify that he has, at his own expense, inspected and examined the proposed project site, its surroundings and existing infrastructure and facilities related to the execution of the work and has obtained all the pieces of information that are considered necessary for the proper execution of the work covered under these Terms of Reference.
- b) The CONTRACTOR shall ensure that all works at the stages of construction, restoration of affected areas, and testing and commissioning shall be carried out efficiently and effectively.
- c) The CONTRACTOR shall provide PSHS-MRC with complete reports such as technical analysis, maps and details regarding the existing conditions and proposed improvements within the site.
- d) The CONTRACTOR shall consider the academic calendar and critical dates and occasions within PSHS-MRC, in order to align his work schedule with the academic calendar of the school to avoid unnecessary disruption of school activities due to construction activities such as closure of water and power supply and non-usage of the existing roads.
- e) The CONTRACTOR shall inform PSHS-MRC of critical events during construction, especially when such events can potentially disrupt school activities.
- f) The CONTRACTOR shall be PCAB accredited and shall have a Construction Safety and Health Program approved by DOLE.
- g) The CONTRACTOR will be held accountable for accidents that might occur during the execution of the project. The CONTRACTOR is required to install warning signs and barriers for the safety of the general public and the avoidance of any accidents and provide appropriate and approved type personal protective equipment for their construction personnel.
- h) The CONTRACTOR shall be professionally liable for the as-built plan and shall submit a signed and sealed copy of the approved documents to form part of the Contract Documents.
- i) Only the plans approved by the Head of Procuring Entity (HOPE) shall be signed and sealed by the CONTRACTOR, and thereafter shall be the plans used for construction.
- j) All works designed and constructed should be guaranteed to seamlessly fit into the overall system general design standards of the PSHS System.

## **XI. PROJECTED SUBMITTALS DURING THE PROJECT**

The following submittals and accomplished documents shall be duly completed and turned-over by the CONTRACTOR for the project:

- A. FOR THE CONSTRUCTION PHASE (7 copies each)**
  - a) Shop drawings (hard copy and soft copy)
  - b) PERT-CPM
  - c) Concrete Test results
  - d) Guarantees, warranties and other certificates
  - e) Fire and Life Safety Assessment Report 2 and 3 (FALAR 2 and 3)
  
- B. FOR THE POST-CONSTRUCTION PHASE (7 copies each)**
  - a) As-built plans (hard copy and soft copy)
  - b) Certificate of Occupancy
  - c) Fire Safety Inspection Certificate (if applicable)
  - d) All other necessary documents to be required by B&D Committee

#### **xiv. CODES AND STANDARDS**

The project shall be designed, engineered, installed, tested, commissioned and handed over in conformity with the Building and Design Standards of the PSHS System and with the latest editions of the National Building Code of the Philippines, the National Structural Code of the Philippines, the Philippine Electrical Code, Philippine Mechanical Code, the National Plumbing Code of the Philippines, National Fire Code of the Philippines and other relevant codes and standards.

#### **xv. INSTALLATION AND WORKMANSHIP**

Personnel of the CONTRACTOR should be specialists highly skilled in their respective trades, performing all labor according to first-class standards. A full time Project Engineer/Architect and Construction Safety Engineer shall be assigned by the CONTRACTOR at the job site during the construction of the project.

All work to be subcontracted shall be declared by the CONTRACTOR and shall be approved by the Campus Director of PSHS-MRC and its respective technical offices. However, subcontracting of any portion shall not relieve the contractor from any liability or obligation that may arise from the contract for this project.

Tapping for utilities such as power supply, water supply and sewage drainage shall be coordinated with their respective utilities/ service provider/ companies, and all works involved, including access to utilities tapping point, excavation, removal of obstructions, concrete breaking, backfilling and restoration of affected areas, shall be coordinated and included in the scope of work and cost of the project.

Any errors, omissions, inconsistencies, inadequacies or failure submitted by the CONTRACTOR that do not comply with the requirements shall be rectified, resubmitted and reviewed at the CONTRACTOR'S cost. If the CONTRACTOR wishes to modify any design or document, reviewed and approved, the CONTRACTOR shall notify the procuring entity within a reasonable period of time and shall shoulder the cost of such changes.

#### **xvi. MATERIALS**

All materials and equipment shall be standard products of manufacturers engaged in the production of such materials and equipment and shall be the manufacturer's latest standard design.



The materials and workmanship supplied shall be of the best grade and constructed and/ or installed in a practical and first class manner. It will be completed in operation, nothing being omitted in the way of labor and materials required and it will be delivered and turned over in good condition, complete and perfect in every respect.

Materials and systems for structured cabling shall be in accordance with standards set by the PSHS System.

All materials shall be in conformance with the latest standards and with inspection and approval from B&D Committee.

#### xvii. **MODE OF PAYMENT**

- a) The PSHS-MRC shall pay the winning CONTRACTOR progress payments based on billings for actual works accomplished, as certified by B&D Committee of the PSHS System. In no case shall progress billing be made more than once every thirty (30) calendar days. Materials or equipment delivered on the site but not completely put in place or used in the project shall not be included for payment.
- b) All progress payment shall be subject to retention of ten percent (10%) based on the amount due to the winning CONTRACTOR prior to any deduction. The total retention money shall be released only upon Final Acceptance of the Project. The winning CONTRACTOR may, however, request for its release prior to Final Acceptance subject to the guidelines set forth in R.A. 9184 and its Implementing Rules and Regulations.
- c) The CONTRACTOR may request in writing which must be submitted to form part of the Contract Documents, for an advanced payment equivalent to fifteen percent (15%) of the total Contract Price. The advance payment shall be made once the CONTRACTOR issues its irrevocable standby letter of credit from a reputable bank acceptable to the PSHS System, or GSIS Surety Bond of equivalent value, within fifteen (15) days from the signing of the Contract Agreement to cover said advanced payment.
- d) First Payment/Billing shall have an accomplishment of at least 20% of the construction phase.
- e) The following documents must be submitted to the B&D Committee before processing of payments to the CONTRACTOR can be made:
  - i. Progress Billing
  - ii. Detailed Statement of Work Accomplished (SWA)
  - iii. Request for payment by the CONTRACTOR
  - iv. Pictures/photographs during, before and after construction (for all Billings payed)
  - v. Pictures/photographs of work accomplished
  - vi. Payment of utilities (power and water consumption)
  - vii. CONTRACTOR's affidavit (if accomplishment is more than 60%)

*Note: The DESIGN & BUILD CONTRACTOR can bill the PSHS-MRC of up to a maximum of 90% accomplishment.*

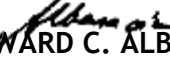
Prepared by:

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Chairperson

  
**Engr. BRYAN F. MANZANO**  
Member

  
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