SCOPE OF WORK
COMPLETION OF ACADEMIC BUILDING III
OF
PHILIPPINE SCIENCE HIGH SCHOOL – ZAMBOANGA PENINSULA REGION CAMPUS
BRGY. COGON, DIPOLOG CITY

I. BACKGROUND

The Construction Academic Building III of Philippine Science High School – Zamboanga Peninsula Region Campus (PSHS-ZRC) was started in April 2022 and is expected to be completed in 2023 with three (3) functional floor levels and an open basement. The **Completion of Academic Building III project** will make all floor levels completely operational and development of its perimeter to provide more utility and mobility. This project is set to benefit more female and male students, employees and stakeholders of PSHS-ZRC.

II. PROJECT DESCRIPTION AND LOCATION

The Completion of the Academic Building III should be in pursuant to the technical specifications indicated in this Scope of Work. This includes the

- installation of sun shading device
- Construction of four (4) classrooms at the basement
- Civil and other works

PSHS-ZRC intends to procure through public bidding the **Completion of Academic Building III** project with an Approved Budget for the Contract (ABC) of **NINE MILLION FIVE HUNDRED FIFTY-SIX THOUSAND PESOS (₱ 9,556,000.00)**, including all applicable taxes, permits, certificates and clearances. This ABC is net of the amount allotted for Project Management Cost (PMC) of Four Hundred Forty-Four Thousand Pesos (₱444,000.00), or a total cost of the project of TEN MILLION PESOS (₱ 10,000,000.00) as indicated in the National Expenditure Program (NEP) for FY 2023. **The project duration is 180 calendar days.** This is an Early Procurement Activity (EPA).

III. SCOPE OF WORK – CONCEPTUAL DESIGN

The bidder shall prepare and submit:

- Bill of Quantities (BOQ) and Detailed Cost Estimates of the scope of work for the whole project.

  Note:
  - The labor component of the cost estimates shall follow the ranges provided in the latest wage order of DOLE Region IX.
  - The Contractor shall provide itemized breakdown of the units in lots/Lump sums given in the BOQ.

1. General Requirements

1.1. Mobilization and Demobilization
1.2. Project Billboard

1.3. Temporary Facilities

- The Contractor shall provide temporary office and bunkhouse/quarters with water, electricity and toilet facilities. Upon completion of this project, the structures made shall be torn down and the area has to be cleaned and the recovered usable materials shall be turned over to the procuring entity.
- The Contractor shall pay for the installation of/acquisition of separate connections for electricity and water and the monthly bills for these during the construction phase.

1.4. Design Services

- The As-Built Plan (Works completed in this completion) and revised plans (if any) should be prepared, signed, and sealed by the respective registered professionals.

1.5. Construction Safety and Health

- Personal Protective Equipment, Medicines, First Aid Kit, and others.

2. Installation of Sun Shading Device (1st to 3rd Floor)

- Design, supply, delivery, and installation of sun baffles to cover double casement windows. Design to consider that existing windows can be fully opened for proper ventilation even with the presence of sun baffles.
- Material shall be perforated aluminum composite panel, similar to the one installed at the Academic Building I, but with larger holes. Color preferences: exterior - blue; interior - while.

Academic Building I sun baffles

3. Architectural Works (See Annex A – Architectural Plan)

3.1 Reinforced CHB laying, including plastering - Exterior and interior reinforced CHB laying, including plastering at the basement

3.2 Doors and Windows - Supply and Installation of exterior and interior doors and windows at the basement

3.3 Curve Laminated White Boards - Supply and installation of four (4) units laminated white board (same as those installed in the upper floors of the building)

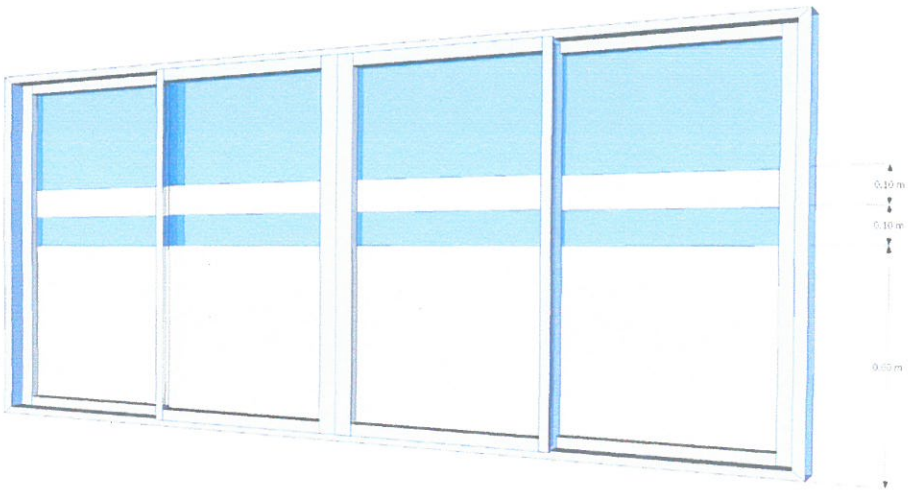
3.4 Student Tables and Chairs – Supply, delivery, assembly and placement in classrooms of ninety (90) sets of student table and chair (same as the picture below)

3.5 Tile Works - Supply and installation of floor and wall tile specified on the floor plan at the basement and stairs. The color should be the same as the present at the upper floors of this academic building III.

3.6 Ceiling Works – Installation of fiber cement board ceiling on light gauge metal frame at the basement.

3.7 Painting Works - Painting of exterior and/or interior wall, and ceiling at the basement shall be the same as the present at the upper floors of this academic building III.

3.8 Frosted Film – Application of frosted film for the classroom windows located at the hallway of all floor levels to avoid distractions caused by the passerby.



3.9 Basement Waterproofing - every corner/joint and concrete pouring joints of the basement should be applied first with rapid setting mortar to plug leaks in concrete. Wall and slab surfaces should be applied with at least two (2) coats of crystalline capillary waterproofing and should be made to cure for at least three (3) days.

4. Mechanical works (See Annex B – Fire Protection Plan & FDAS Plan)

4.1 Fire Sprinkler System

- Works shall start from the installed main cross pipe of the Fire Sprinkler System located at the Basement Level
- Installation of cross main and branch pipes, sprinkler heads, valves, other fittings and supports that are necessary for the completion of this work

- Supply and installation of fire hose cabinets
- Testing and Commissioning

4.2 Fire Detection and Alarm System

- Complete the Fire Detection and Alarm System installation in the two (2) Smart Classrooms, two (2) classrooms and the hallway of the basement.

4.3 Air-Conditioning Unit (ACU) System - Supply and installation

AC Unit	QTY (Set with complete Accessories)
3 TR Ceiling Mounted	9
1 TR Split Type Aircon	3

5. **Electrical Works** (See Annex C – Electrical Plan)

❖ Installation of electrical wires, conduits, boxes, breakers, wire devices, electrical fixtures, lighting fixtures and accessories at the basement necessary for the completion of this work.

- Ceiling Fans - Forty-eight (48) units 18" oscillating ceiling fan for all classrooms
- Exhaust Fans – Twenty-four (24) units 12"-size exhaust fan with control switch at all rest rooms in all floor levels
- Troffer - Twenty-eight (28) units of troffer light 2-16w with switch at the basement.
- Pin light – Sixteen (16) units of recessed type pin light 6" 15w led bulb with switch at the basement
- Emergency Lights – Forty-seven (47) units of automatic emergency light at all floor levels.
- Panel Boards – Supply and installation of panel boards PB-4 and PB for ACU at the electrical room.

6. **Information and Communication Technology** (See Annex D – ICT)

❖ Supply and installation of CAT 6 UTP cables for Voice, Data Communication and CCTV Television Systems at the basement

❖ Supply, installation and configuration of ICT fixtures

ALL FLOOR LEVEL	BASEMENT
IP-Based Bullet Type CCTV (8 units)	Data Outlet (10 units)
IP-Based Dome Type CCTV (2 units)	Coaxial Port (4 units)
Access Point (8 units) - Indoor Access Point Long Range Wi-Fi6 - High efficiency 4x4 Wi-Fi 6 (802.11ax) - 5GHz band (4x4 MU-MIMO and OFDMA) with 2.4 Gbps throughput rate - 2.4GHz band (4x4 MIMO) with 600 Mbps throughput rate - Powered by 802.3at PoE - IP54-rated water and dust protection for indoor/outdoor mounting versatility	

7. **Civil Works**

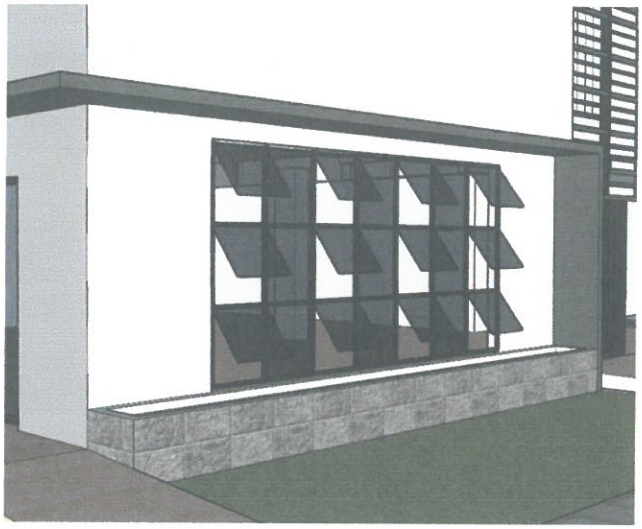
7.1 Design and Construction of Perimeter Improvement and Storm Drainage System

- Works shall include excavation, embankment, vegetation, ornamental plants, plantation of seventeen (17) royal palm trees and concreting of specified area as needed. The surface finish of the pavement should the same as shown below.
- 150mm opening of trench drain with steel grating cover
- Stairs/steps 600mm run.
- Construction of Plant boxes (See Annex E)

Stamped Surface of the Concrete Walkway

7.2 <u>Protection Louver Roofing</u> - Construction of polycarbonate louver roofing with the same design as installed at Academic Building I to prevent rainwater infiltration inside the building

7.3 <u>Concrete Canopy</u> - Construction of concrete canopy at the right elevation of the building. (See Right Side Elevation Plan)



8. **Building Signage** - Supply and installation of signage in all classrooms and offices and for Evacuation Plan and Fire Protection Plan. Preferably a 3mm acrylic clear plastic.

BILL OF QUANTITES AND COST ESTIMATE GUIDE

ITEM NO.	DESCRIPTION	Unit	Qty	Remarks
1.0.	General Requirements			
1.1.	Mobilization / Demobilization	lot		
1.2.	Project Bill Board	lot		
1.3.	Temporary Facilities	lot		
1.4.	Design Services	lot		
1.5.	Construction Safety and Health	lot		
2.0.	Installation of Sun Shading Device	lot		
3.0.	Architectural Works			
3.1.	Reinforced CHB laying including plastering	sq.m.		Basement
3.2.	Doors and Windows	lot		Basement
3.3.	Laminated White Boards	units		Basement
3.4.	Student Tables and Chairs	set		
3.5.	Tile Works	sq.m.		Basement and Stairs
3.6.	Ceiling Works	sq.m.		Basement
3.7.	Painting Works	lot		Basement and Stairs (Interior and Exterior)
3.8.	Frosted Film	lot		All Floor Level
3.9.	Basement Waterproofing	lot		Basement
4.0.	Mechanical works			
4.1.	Fire Sprinkler System	lot		Basement
4.2.	Fire Detection and Alarm System	lot		Basement
4.3.	Air-Conditioning Unit (ACU) System	lot		
5.0.	Electrical Works	lot		All Floor Levels
6.0.	Information and Communication Technology (ICT)	lot		All Floor Levels
7.0.	Civil Works			
7.1.	Design and Construction of Perimeter Improvement and Storm Drainage System	lot		
7.2.	Protection Louver Roofing	lot		All Floor Levels
7.3.	Concrete Canopy	lot		Basement
8.0.	Building Signage	lot		All Floor Levels
	TOTAL			

Completion of Academic Building III must comply with the minimum specifications and standards set forth by the National Building Code of the Philippines (R.A. 6541); Civil Engineering Law (R.A. 544); Fire Code of the Philippines and related safety, health, labor and sanitary laws.

Note:

- *The scope of work of this project is not limited to the items listed in the table. The Contractor may include items that are required in their proposed design.*
- *The Contractor is required to perform an actual site assessment for accurate quantification of materials and span of works. Any item deficiency on the bidding documents submitted as against the actual requirement in site will be to the account of the Contractor and not be subject for variation order.*

IV. SELECTION OF DESIGN AND BUILD CONTRACTOR

The procurement and implementation shall be in accordance with the provisions of RA 9184, specifically, its Annex G. Bidding shall be conducted by the Bids and Awards Committee (BAC) constituted to conduct the procurement of the project. The 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 proposals in accordance with the criteria set.

A. Eligibility Requirements

a. Eligibility Documents

Class "A" Documents

i. PhilGEPS Certificate of Registration and Membership (Platinum)

ii. Mayor's/Business permit issued by the city or municipality where the principal place of business of the prospective bidders is located;

iii. Registration Certificate from the Securities and Exchange Commission (SEC), Department of trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives;

iv. Tax clearance per E.O. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR)

v. Statement of all on-going, completed, awarded but not yet started design/design and build related contracts

vi. Single Largest Completed Contracts (SLCCs) similar to the project to be bid that must be at least fifty percent (50%) of the ABC to be bid (in a joint venture/consortia, one should have at least one similar project, both in design and construction, with at least 50% of the cost)

SLCC must be supported by any of the following documents:

-Owner's Certificate of Final Acceptance issued by the project owner other than the Contractor

- Final rating of at least Satisfactory in the Constructors Performance Evaluation System (CPES). *In case of contracts with the private sector, an equivalent document shall be submitted.*

vii. PCAB licenses and registration for the type and cost of the contract for this project: **(Classification: General Building; License Category: C&D; Size Range: Small B)**

viii. Audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission;

ix. NFCC computation

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 to be bid.

Class " B " Documents

i. Joint Venture agreement, if applicable.
ii. Special PCAB license in case of a Joint Venture.

b. Technical Documents

i. Bid Security (in any form)
ii. Project Requirements
   ii.1. Organizational Chart
   ii.2. List of Contractor's personnel (design and construction) with complete qualification and experience data (with valid licenses issued by the PRC)
   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 equipment lessor/vendor for the duration of the project.
iii. Omnibus Sworn Statement
iii. Preliminary Conceptual Design Plan (Schematic Drawings) in accordance with the degree of details specified under Section III SCOPE OF WORK – DESIGN

These drawings shall be scaled presentation comprising, but not limited to:

- necessary details on illustrating the size, dimensions, materials intended to be used and specifications indicated in the Scope of Work. These shall be printed on A3-sized sheets.
- Another complete set of the drawings should be printed on A4-sizes sheets bound and submitted together with the other technical documents.

iv. Design and Construction Methods
v. Value Engineering Analysis of Design and Construction Method
Prospective bidders shall prepare a value engineering analysis report of their proposed design and 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 design and construction duration, measured using the HOPE and approved PERT-CPM of the project.
- Operational efficiency

c. Financial Component

i. Financial Bid Form
ii. Bill of Quantities
iii. Detailed Cost Estimates
iv. Summary Sheet indicating the unit prices of materials, labor rates and equipment rental
v. Payment Schedule

Three (3) sets of documents [i.e., one (1) original and two (2) photocopies] – each set containing the eligibility, technical and financial components shall be submitted. These sets of documents should be hard-bound or soft-bound or ring-bound, provided with bookmarks on the side corresponding to the table of contents.

B. Eligibility Criteria

a. The eligibility of design and build Contractors shall be based on the legal, technical and financial requirements above-mentioned. In the technical requirements, the design and build 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, both in design and construction, with at least 50% of the cost of the Approved Budget for the Contract (ABC).

b. If the bidder has no experience in design and build projects on its own, it may enter into subcontracting, partnerships or joint venture with design or engineering firms for the design portion of the contract.

c. The relevant provisions under Section 23.5. of the IRR of RA 9184 on eligibility criteria shall be observed.

V. DESIGN / CONSTRUCTION PERSONNEL

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

1. **Project Engineer**
   The Project Engineer shall be a licensed civil engineer with at least two (2) years of experience in building construction and civil works.

2. **Foreman**
   The Foreman must be duly accredited with at least two (2) years of experience in building construction and civil works.

3. **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).

4. **Electrical Engineer**
   The Electrical Engineer must be a registered Electrical Engineer with at least five (3) years of experience in the design of lighting, power distribution and preferably knowledgeable in developments in emergent efficient lighting technologies and energy management.

5. **Master Plumber**
   The Sanitary Engineer or Master Plumber must be duly-licensed with at least three (3) years of experience in similar and comparable projects in Drainage Systems and Waste Water Management Systems and preferably knowledgeable in emergent, alternative effluent collection and treatment systems.

6. **Mechanical Engineer**
   The Mechanical Engineer must be a registered Mechanical Engineer with at least three (3) years of experience in HVAC and fire protection systems and preferably knowledgeable in emergent, alternative energy-efficient HVAC technologies and fire detection system.

7. **Electronics and Communication Engineer**
   The Electronics and Communication Engineer must be a registered Electronics Engineer with at least three (3) years of experience in the related field and knowledgeable in ICT systems.

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 this Scope of Work, for the PROJECT. Prospective

bidders shall attach each individual's resume and PRC license (if applicable), proof of qualifications, and related documents as necessary.

VI. DETAILED ENGINEERING REQUIREMENT

1. Upon award of the design and build contract, the winning bidder shall be responsible for the preparation and submission of all necessary detailed engineering investigations, surveys and designs in accordance with the provisions of Annex "A" of this IRR (with the exception of the Bidding Documents and the ABC) for items required in the above Scope of Work.

2. The procuring entity shall ensure that all necessary schedules with regard to the submission, confirmation and approval of the detailed engineering design and the details of the construction methods and procedures shall be included in the contract documents.

3. The procuring entity shall review, order rectifications, and approve or disapprove – for implementation only – the submitted plans within these schedules. All instructions for rectification shall be in writing stating the reasons for such rectification. The design and build Contractor shall be solely responsible for the integrity of the detailed engineering design and the performance of the structure irrespective of the approval/confirmation by the procuring entity.

VII. PROJECT IMPLEMENTATION

As a rule, contract implementation guidelines for the procurement of infrastructure projects shall comply with Annex "E" of the IRR of RA 9184.

In compliance with the design and build Terms of Reference, the DESIGN AND BUILD CONTRACTOR shall submit a detailed program of work within ten (10) calendar days after the issuance of the Notice to Proceed for approval by the procuring entity that shall include, among others:

a. The order in which it intends to carry out the work including anticipated timing for each stage of construction;
b. Periods for review of specific outputs and any other submissions and approvals;
c. Sequence of timing for inspections and tests as specified in the contract documents;
d. General description of the construction methods to be adopted;
e. Number and names of personnel to be assigned for each stage of the work;
f. List of equipment required on site for each major stage of the work;
g. Description of the quality control system to be utilized for the project.
h. Provide value engineering analysis on all prepared construction documents.
i. Prepare from the approved schematic design documents, the complete construction drawings and detailed technical specifications, cost estimates and the bill of quantities, setting forth in detail the work required for the architectural, structural, electrical, plumbing/sanitary, mechanical and other service-connected equipment, utilities, site planning aspects and related works, electronic and communications and the site development plan of the PROJECT's immediate environs.
k. Prepare the scope of work for construction based on the prepared bill of quantities and cost estimates while fitting within the approved budget.
l. Coordinate with all offices and agencies concerned, within and outside the Campus regarding utility connections, permits and other requirements needed.
m. Periodically coordinate and present the status of the design phase to the Head of Procuring Entity and the PSHS Design & Build Committee.

All drawings included in the contract documents should be plotted on 20" x 30" sheets. All other textual submittals shall be printed and ring-bound on A4-sized sheets.

Where required, design components shall be designed in coordination with the agencies concerned (e.g., coordinate with electric company for power lines and concerned company/agency for water and sewage lines).

Partial and earlier submission of the construction drawings, such as those affecting the preliminary stages of construction (site works, foundation works, etc.) shall be allowed. The DESIGN & BUILD CONTRACTOR may only proceed with the CONSTRUCTION PHASE after the approval of PSHS Design & Build (D&B) Committee of the drawings, designs and bill of estimates as recommended by the Technical Working Group (TWG) and upon accomplishing all necessary PRE-CONSTRUCTION tasks.

a. **Pre-Construction**

a) Secures all necessary building permits prior to construction. All incidental fees shall be included in the cost estimate of the building.
b) Prepares of the PERT-CPM of the construction phase.
c) Provides all other necessary documents that shall be required by the Design & Build Committee.

b. **Construction Phase**

a) Implement all works indicated in the approved construction drawings and specifications.
b) Preparation of shop-drawings for construction guide.
c) Report and coordinate with the D&B Committee regarding scheduling of inspection, mock-ups and construction issues.
d) Conduct all necessary tests (to be required by D&B Committee) and issue reports of results.
e) Rectification of punch-listing works issued by the TWG/Inspectorate Team.
f) Provide all other necessary documents that shall be required by the D&B Committee.

c. **Post Construction Phase**

a) Final Inspection to be conducted by TWG-Infrastructure and the Contractor's Representative/Project Engineer.
b) Turn-over of all manuals, certificates and warrantees of installed items.

d. **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 which has been previously submitted, reviewed and approved, the Contractor shall notify the procuring entity within a reasonable period of time and shall shoulder the cost of such changes.

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.

e. Defects and Liability

a. All design and build projects shall have a minimum Defects Liability Period of one (1) year after contract completion or as provided for in the contract documents. This is without prejudice, however, to the liabilities imposed upon the engineer/architect who drew up the plans and specification for a building sanctioned under Section 1723 of the New Civil Code of the Philippines.

b. The Contractor shall be held liable for design and 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 DESIGN & BUILD CONTRACTOR shall propose the most reasonable time schedule for the completion of the project. **It is expected that this period will not exceed ONE HUNDRED EIGHTY (180) CALENDAR DAYS from the date of the issuance of the Notice to Proceed (NTP).**

IX. THE IMPLEMENTING AGENCY'S GENERAL RESPONSIBILITY

The implementing agency for the project is the PSHS-ZRC with final approval for all decisions and actions from the Campus Director through the FAD Chief and the TWG on Infrastructure. The TWG on Infrastructure 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 SCOPE OF WORK.
b) Coordinate with DESIGN & BUILD CONTRACTOR pertaining to issues during the construction.
c) Assist in the coordination of the DESIGN & BUILD CONTRACTOR with various utility agencies during the detailed design and implementation phases of the project.
d) Conduct regular coordination meetings between the DESIGN & BUILD CONTRACTOR and the end-user 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 design, construction, restoration of affected areas, and testing and commissioning shall be carried out efficiently and effectively.

c) The CONTRACTOR shall provide the school with complete reports such as technical analysis 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 the School, 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 the school 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 and designed specifically for this project.

g) The CONTRACTOR shall be held accountable for accidents that might occur during the execution of the project. The DESIGN & BUILD 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 constructionpersonnel.

h) The CONTRACTOR shall be professionally liable for the design and shall submit a signed and sealed copy of the approved construction 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) Technical specifications (3 sets hard copy and soft copy)
b) Detailed cost estimate (3 sets hard copy and soft copy)
c) Bill of quantities (3 sets hard copy and soft copy)
d) Shop Drawing (hard copy and soft copy)
e) PERT-CPM
f) As-built plans (signed and sealed in one (1) original and two (2) reproducible copies) Electronic copies shall also be submitted in native files Autodesk software and pdf.
g) Guarantees, warrantees and other certificates
h) Operation and Maintenance Manual, if applicable

XII. CODES AND STANDARDS

The project shall be designed, engineered, installed, tested 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.

XIII. 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/Civil Engineer shall be assigned by the CONTRACTOR at the job site during the construction of the project.

All works to be subcontracted shall be declared by the CONTRACTOR and shall be approved by the Campus Director of PSHS-ZRC and its respective technical offices.

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 which has been previously submitted, reviewed and approved, the CONTRACTOR shall notify the procuring entity within a reasonable period of time and shall shoulder the cost of such changes.

XIV. 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.

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

XV. MODE OF PAYMENT

a) The PSHS-ZRC shall pay the winning CONTRACTOR progress payments based on billings for actual works accomplished, as certified by D&B 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 advance 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 advance payment.

d) First Payment/Billing shall have an accomplishment of at least 20%.

e) The following documents must be submitted to the D&B Committee before processing of payments to the CONTRACTOR can be made:

   i. Progress Billing
   ii. Request for payment by the CONTRACTOR
   iii. Pictures/photographs of original site conditions (for First Billing only)
   iv. Pictures/photographs of work accomplished
   v. Accomplishment Report
   vi. Material Testing Results
   vii. Payment of utilities (power and water consumption)
   viii. CONTRACTOR's affidavit (if accomplishment is more than 60%)

Prepared by:

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