TERMS OF REFERENCE

Consulting Services for the Architectural and Detailed Engineering Design for the Construction of Multi-Purpose Gymnasium and Construction of Academic Building II of Philippine Science High School-MIMAROPA Region Campus, Barangay Rizal, Odiongan, Romblon

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I. BACKGROUND

The PSHS – MIMAROPA Region Campus will be constructing its Multi-Purpose Gymnasium and Academic Building II. The proposed budget for the abovementioned infrastructure projects is One Hundred Thirty Million Pesos only (Php130,000,000.00) in total.

The Approved Budget for the Contract of the abovementioned consulting services project is Two Million Pesos Only **(Php2,000,000.00) for each project-** Construction of Multi-Purpose Gymnasium **and** Construction of Academic Building II.

The dimensions and space are consistent with the PSHS Building Standards and Specifications. The desired infrastructure and facilities will take into consideration the following conceptual design:

A. CONSTRUCTION OF MULTI - PURPOSE GYMNASIUM

The proposed facility has an estimated **ABC** of **Sixty Million Pesos (Php 60,000,000.00)** It shall be designed to accommodate seating capacity of 1500 spectators, under a roof that has no vertical pillars to block anyone's view. The roof shall be complemented by sun breakers at the back of the grandstand. Roof shall be provided with accompanying heat dissipation solutions, preferably using natural ventilation mechanisms and must consider the sustainable green technology design on each and every space of the building. The construction will commence on FY 2022-2023.

A.1. Centerstage

The centerstage will have an indoor stage LED screen and state of the art sound system which are suspended just above the roof of the stage. The PSHSS logo made of acrylic material and the name PHILIPPINE SCIENCE HIGH SCHOOL- MIMAROPA REGION CAMPUS in stainless metallic letters are also placed right above the roof of the stage with back lights for emphasis. The height of the centerstage is equivalent to that of the second level row of bleachers from the courtside. The stage is elevated to give optimum view for audiences even from the back row. Theatre curtains with motorized rigging are also placed on the downstage. There will be an entrance and exit pathways located on each side of the upstage. While on the stage left and stage right wings are regular stairs and specialized ramps for PWDs.

A.2. Court and Audience Area

The court will have an international standard size with suspended movable basketball rings. So, during school activities, cultural events, etc. the basketball rings can easily be moved. The playing court is made up of hardwood/hard maple which is a dense wood with fine fibers which makes it resistant to splintering. At the center of the court, is a suspended 4-sided center-hung basketball scoreboard. The whole court area has a surround sound system.

A.3. Bleachers

There are 2 levels of bleachers which are separated by isle rails and pathways surrounding the court area except for the centerstage. These bleachers can accommodate a capacity of 1,500 persons. A ramp with railings and 5-seater section for PWD shall also be provided. There will be 6 batch of bleachers (Level 1 and 2) distinguished with different colors.

A.4. Dressing Rooms

Two dressing rooms shall be placed on each side of the backstage which can hold a capacity of 20 to 30 persons each. The rooms are built with their own air conditioning system and comfort rooms for ten people at a time and with enough space for changing and for lockers.

A.4.1. Dressing Room for Boys

The dressing room for boys shall be placed on the left side of the backstage with customized mirrors attached to the wall which have enough space for lockers or cabinets for costumes, props, etc. It will also have an access to its comfort room with 5 toilet cubicles, 3 urinals and 4 rows of wash basins and mirrors.

A.4.2. Dressing Room for Girls

The dressing room for girls shall be placed on the right side of the backstage with customized mirrors attached to the wall which shall have enough space for lockers or cabinets for costumes, props, etc. It will also have an access to its comfort room and shower area with 6 toilet cubicles and 4 rows of wash basins and mirrors.

A.5. Practice Rooms

There will be two practice rooms and shall be intended for music and dance rehearsals. Each room is able to cater at most 30 people with their musical instruments in one seating and is acoustically soundproofed. The room has its own air-conditioning system. A wide mirror shall be installed in ideal side of the room.

A.5.1. Music Room

This room is intended for music rehearsals such as choir, rondalla ensemble, kulintang ensemble, kalinga ensemble and other music related performances.

Preferably, this room must be sound proofed.

A.5.2. Dance Studio

This room is intended for dance rehearsals. It has a full mirror on one wall facing the entrance and another set of full mirrors on the right side. A ballet bar rail is installed alongside the entrance. The dance floor is made up of hardwood/hard maple which is a dense wood with fine fibers which makes it resistant to splintering.

A.5.3. Band Room and Recording Studio

This room is intended solely for band rehearsals, recording sessions and storage of electronic musical instruments and equipment. In shall cater at least 8 to 10 persons and is acoustically soundproofed. It will have a separate mini-control room for sound system operators. The room has its own air-conditioning system.

A.6. Lecture Rooms

There will be 3 classrooms of size enough to accommodate at least 30 persons in one seating (Include approximate size) and enough for Physical Education, Health and Music discussions and group activities. A whiteboard will be installed at the front left and right part of the room while providing a space at the center for the installation of LED television for lecture and presentation purposes. The room has its own air-conditioning system and soundproofed.

A.7. Faculty Room

This room shall be intended for the faculty office. It shall cater at least 3-4 persons and is arranged in such manner so as to promote open communication among the different components of PEHM Unit. This room must be equipped with LED television, announcement board and has a space for filing cabinets. It has a door that is connected to the control room for monitoring purposes during sports and cultural activities. The room has its own air-conditioning system.

A.8. Stock Rooms

Stockroom serves as the storage of supplies used by the PEHM Unit for activities and classroom use. There are two (2) stock rooms to wit:

A.8.1. Physical Education, Health and Music Stock Room

This room shall serve as the storage of Physical Education, Health and Music instruments, facilities and equipment used for activities and instructional materials. It has three (3) division which will cater the three components. Each division has a space for the installation of storage cabinets for sports equipment, musical instruments, health facilities and layered cabinets for records safekeeping. This room is also equipped with CCTV.

A.8.2. Gymnasium Stock Room

This room shall serve as the storage of gymnasium facilities and equipment. It has a space enough to cater Monoblock chairs, gym floor mats and etc. It has a built-in layered storage cabinet for records safekeeping. This room is equipped with CCTV.

A.9 Shower Rooms with Lockers

There shall be two (2) shower rooms with lockers located beneath the first level of the bleachers to wit:

A.9.1. Boys Shower Rooms with Lockers

This room shall serve as shower rooms for boys. The room have fifteen (15) shower cubicles, five (5) toilet cubicles, five (5) rows of wash basins and mirrors. It has a space for the installation of lockers which can cater 31 persons.

A.9.2. Girls Shower Rooms with Lockers

This room shall serve as shower rooms for girls. The room have fifteen (15) shower cubicles, five (5) toilet cubicles, five (5) rows of wash basins and mirrors. It has a space for the installation of lockers which can cater 31 persons.

A.10. Common Comfort Rooms

There are 4 areas for common comfort rooms which are distributed in the first and second level of the gymnasium. Comfort rooms for boys shall have 6 toilet cubicles, 10 urinals and 4 rows of wash basins and mirrors while comfort rooms for girl shall have 16 toilet cubicles and 6 rows of wash basin and mirrors.

A.11. Utility Room

Utility room is the control room for maintenance personnel with provision of wash and drying area for housekeeping. Equipment for communication/intercom must be present in this area for communication with other offices/building. The preferred location is at the courtside for easy access.

A.12. Admission and Lounge Area

Admission area shall be constructed at the main entrance of the gymnasium. This is an open area for the admission of participants during sports and cultural activities. A main lobby shall be included with soft cushions and art materials in display, hall of fame awards and trophies of the scholars. There will also be a space on top of the admission area for LED TVs and billboards for announcements. The admission area will have two separate entrance on each side to the basketball court with access ramps for PWDs. as well as two separate side stairs going to the second floor. Beneath those stairs are spaces for food stalls. The main entrance will have 2 glass doors separated by a pillar or column. Outside, it will have an arc shape roofing that covers the entry stairs with steel railings and access ramps for PWDs on each side.

A.13. Control Room

The control room shall be located directly in front of the centerstage in a protruding manner. The room will be used to control the audio and lighting system of the whole gym. It will have a separate access door to the faculty room.

A.14. Indoor Volleyball and Badminton Courts

There will be a designated standard-sized indoor volleyball court and 2 badminton courts parallel to each other and surrounded by bleachers for a small audience.

General Description:

Each of the gymnasium rooms shall have individual panel board with breakers for air conditioner, convenience outlet, and lighting fixtures. There must also be spare rooms for indoor games like chess, table tennis, etc. Fire sprinkler lines shall be installed and tapped to the nearest fire pipe line. CCTV and internet rough-ins shall also be included. Elevated water tank and the required pumps shall be provided. Required volume of the septic pump shall be computed. On-site water sources shall be strategically located and built to facilitate efficient ground irrigation and cleaning. All utilities, equipment, furniture and appliances must be captured in the design layout.

The multi-purpose gym shall be installed with cooling mechanisms to ensure an optimum temperature range of 20 to 22 ºC and relative humidity range of 40 to 65%. These cooling mechanisms may be in the form of active, passive or hybrid. In the mezzanine, additional lightings shall be set, with provision of new electrical outlets to accommodate the use of various equipment in the area without the need for any extension cords. Speaker and lighting system shall be laid out to ensure clarity and finesse of audio and visual presentations.

B. CONSTRUCTION OF ACADEMIC BUILDING 2

The proposed facility has an estimated budget of **TWENTY MILLION PESOS ONLY (Php 20,000,000.00)** for Phase 1, **FORTY MILLION PESOS ONLY (Php 40,000,000.00)** for Phase II and **TEN MILLION PESOS ONLY (Php 10,000,000.00)** for the Completion of the construction with the total **ABC** of **Seventy Million** Pesos (**Php 70,000,000.00 for Construction of Academic Building II.**

The Academic Building II shall house the Senior Year Program of PSHS-MRC Faculty Center, and the Office of the Curriculum and Instruction and Student Services Division Chiefs. It includes classrooms for the STEM Track in the Senior year which includes specialization for Agriculture. The building should conform to the structural codes set by the PSHS and conforms with the existing laws of the Philippines on National Building Code, Structural Code, Mechanical Code, Electrical Code, Sanitary Code and the like. Preferably, the building is infinity-shaped viewed from the top and uses green technology in the components of its design.

B.1 Classrooms

There shall be 12 classrooms of size enough to accommodate at least 30 persons per class size (9x7 sqm) and enough for classroom discussions and group activities. The size should not be less than 9 x 7 square meter. Lecture room/classrooms for Grades 11-12 will have provision for pitching of ideas-to include presence of glass board, pitch decks, and LED Monitors at one corner of the room

B.2. Faculty Lounge

A faculty lounge shall be constructed at the basement of the building that sits in front of the campus dormitory. This will be an open area for faculty to serve as haven to rejuvenate, recharge, and relax after a tiring academic work. A main lobby shall be included with soft cushions, pantry area and art materials in display. Adjacent to the lobby is a faculty library that is exclusively for faculty use only with tables and chairs for scholarly discussion. There will be two airconditioned rooms for discussions with LED TV. Six bed capsules shall also be in place in the Faculty Lounge including a Fitness Room for physical exercises and a GAD Room for breastfeeding faculty. Three separate comfort rooms shall form the faculty lounge. The faculty lounge shall also house the Office of

the Curriculum and Instruction Division and the Student Services Division. Part of this area will house the faculty room.

B.3 Faculty Room

The faculty room shall be located at the three floors starting at the basement with connecting stairs to the first and second floor. Faculty Room is arranged in such manner so as to promote open communication among the different units of the CID. Each floor of the faculty room must be equipped with the paging system, announcement board and wireless internet connection for sharing of information. Each room shall accommodate at least 20 faculty members.

B.4 The Office of the Curriculum & Instruction Division

The Office of the Curriculum and Instruction Division will be housed at the basement floor of the building with a control room for monitoring of the Academic Building 1 and Laboratory Building 1 including playing areas. This control room is connected to the Public Address System of the school. The Office of the CID shall have a separate restroom in the office. Adjacent to it, is a conference room that can be used both by the CID and the SSD.

B.5. The Office of the Student Services Division

The Student Services Division shall be a room adjacent to the Curriculum and Instruction Division. This room shall house the Chief of the Student Services Division. The office shall also have a separate restroom and a receiving area for parents and students concerns. The SSD shall also be connected to the school's paging system and CCTV for monitoring.

B.6 The Office of the Student Discipline

The Office of Student Discipline will also be a separate room in this building with provision for a conference room for the resolution of discipline cases. This must be free from outside noise.

B.7 Reproduction Room

The reproduction room is the facility for reproducing instructional materials, assessment materials, correspondences and school paper. It must have its own ventilation system and storage facility of all the materials that is reproduced. Facility for the storage of unused paper and ink must be present in this room for accounting and inventory.

B.8. Library

The library serves as a learning resource center providing efficient and effective access to various forms of high quality knowledge and services that meet the needs and demands of the academic community.

The library will have quiet area, discussion rooms, viewing room, internet stations and printing section for students and faculty.

It shall also house foreign reference section, Filipiniana reference section, fiction, graphic novels, thesis section, archives and museum and DOST publications.

B.9. Stockroom

Stockroom serves as the storage of supplies used by the academic units for activities and classroom use. This room is equipped with light, CCTV, and layers of cabinets for the safekeeping and preserving of its shelf life.

B.10 Utility room

Utility room is the control room for maintenance personnel with provision of wash and drying area for housekeeping. Equipment for communication/intercom must be present in this area for communication with other offices/building.

B.11 Records room

The records room is for the safekeeping and storage of all academic records. This room is equipped with locking mechanism and CCTV for monitoring of personnel accessing this facility.

B.12.Fire Protection Facility and Use of Green Technology

All rooms must be equipped with sprinkler system and alarm system in case of fire. This must be connected to the school's overall emergency response system. Green technology must be incorporated in the design. Use of natural light and ventilation is highly encouraged in its overall design.

B.13.Technology and Innovation Room.

Technology room will cater student technology, innovation and software development projects in the Senior Year program. This will also serve as a model SMART classroom with provisions of LED monitors all over the rooms.

B.14. Design and Engineering Room

Design and Engineering room will serve as laboratory for Grade 10 to 12. This will serve as hub for product development of student's ideas in Grade 10 to 12 and machines/technology will also be housed in this room.

With this, the PSHS-MRC intends to engage the technical and professional expertise of a local consultant firm/company to undertake the following general A & E work:

1.1. Prepare and Submit Design Standards in accordance with appropriate standards and accepted detailed engineering practice of PSHS and the Department of Public Works and Highways (DPWH), (*see annex A for PSHS Building Standards and Specifications*.) Design standards for structures shall take into account, among other things, the seismicity and wind hazards of the area to determine the optimum safety of structures in the event of an earthquake or a strong typhoon.

In the event of an earthquake, the structures should withstand Magnitude 9, whereas in the event of a typhoon, the structure should withstand basic wind speeds for Zone 2 areas in accordance to NSCP 2015 or above.

1.2. Prepare and Submit Field Surveys and Investigation Reports which include, but not necessarily limited to the following activities: hydrographic, topographic, hydrologic, sub-surface, and other related field surveys. These field investigations shall be carried out in accordance with the design guidelines, criteria and standards adopted by the PSHS IRC and the DPWH. All survey and investigation works shall be prepared in a manner satisfactory to carry out accurate design and production of plans that will permit quantity estimates to be made within plus or minus ten percent (10%) of the final quantities of the completed structures.

1.3 Prepare and submit a Master Plan covering the entire development area and showing the location of each structure listed in Annex A.

1.4 Prepare a scaled model of the development.

The objective of hiring an A & E Design Consultant is to tap its expertise in developing the architectural and detailed engineering design for the proposed development project, which will be used as basis for preparing the Scope of Work, and the Technical Specifications of the construction project.

PSHS envisions its structures as safe, conducive to learning, state-of-the art yet economical, energy saving and environment friendly.

II. BASIC INFORMATION ON PROPOSED PROJECT

A. Location : Brgy. Rizal, Odiongan, Romblon
B. Type of Project : Consulting Services for the

B.1. Construction of Multi – Purpose Gymnasium
Php60,000,000.00 (Estimated Construction Cost)
Approximate Floor Area: 2,500 Sq. M.

B.2. Construction of Academic Building II
Php70,000,000.00 (Estimated Construction Cost)
Approximate Floor Area: 3,300 Sq. M.

III. DURATION OF CONTRACT (120 calendar days per Project, excluding project supervision)

A. Component I – Pre-Design

A.1. Project Plan and Schedule of Detailed Architectural and Engineering activities within Thirty (30) calendar days from receipt of Notice to Proceed.

B. Component II – Architectural and Detailed Engineering Design

B.1. Schematic Design Phase, Design Development Phase, Contracts Documents Phase within Ninety (90) calendar days from the completion of the approved Field Study and Investigation Reports

C. Component III – Bidding & Construction Supervision

C.1. Bidding Supervision Phase – which include assistance and advice in securing bids, tabulation and analysis of bid results, and making recommendations on the award of construction contracts, and in preparing formal contract documents; preparation of supplementary drawings required to suit actual field conditions; checking detailed construction and as-built drawings, shop and erection drawings submitted by contractors. periodic visits to check on the general progress of work and quality of material and workmanship; observing performance tests and start-up and making report thereon; and making a final inspection and reporting of completed project.

C.2. Project Supervision Phase - Periodic visits to check on the general progress of work and quality of material and workmanship; observing performance tests and start-up and making report thereon; and making a final inspection and reporting of completed project, but not more than Six Hundred Sixty (660) calendar days from the receipt of the Notice to Proceed (NTP) to determine whether or not the work is in compliance with the approved designs, specifications and quality of the work based on the construction schedule and recommend appropriate action for any findings to the Procuring Entity.

IV. CONSULTANCY SERVICE REQUIREMENTS

A. A local consultancy firm/company with experience in Architecture and Detailed Engineering Design with the following profile:

A.1. A corporate or partnership entity duly registered with the Philippines'

Securities and Exchange Commission, and where the majority shareholder is a Filipino;

A.2. Must be operational for at least five (5) years;

A.3. Must have at least five (5) years of consulting experience in A & E design.

A.4. Must have previously handled/ managed similar contracts for the Detailed Architectural and Engineering Design Services (DAEDS) of academic facilities,
including, but not limited to:

A.4.i. Schools
A.4.ii. Office Buildings/ Office
A.4.iii. Mixed Use Buildings
A.4.iv. Auditoriums
A.4.v. Theaters & Similar Facilities
A.4.vi. Observatories/ Laboratories/ Testing Facilities
A.4.vii. Gymnasium/Sports Complex

V. MANPOWER AND QUALIFICATION REQUIREMENTS

A. The CONSULTANT, as a minimum requirement of the project, must be able to provide the following manpower:

A.1. A & E Design

POSITION	NUMBER OF PERSONNEL	QUALIFICATIONS
Principal Architect/ Project Manager	2	o Graduate of B.S. in Architecture with valid PRC license, o With minimum five (5) years of experience on design and/or building construction management. o With educational training in the fields of construction management and other related works. o Preferably with Doctorate or Master's degree or other degree related to the profession.
Structural Engineer	1	o Graduate of B.S. in Civil Engineering with valid PRC license o With minimum of five (5) years of experience on his/her profession. o Duly Accredited Structural Engineer. o With educational training on civil or structural engineering

		design registered at/under Philippine Institute of Civil Engineers o (PICE) or Association of Structural Engineers of the Philippines (ASEP). ● Preferably with Doctorate or Master's degree or other degree related to the profession.
Civil Engineer	1	● Graduate of B.S. in Civil Engineering with valid PRC license ● With minimum of five (5) years of experience on his/her profession. ● Duly Accredited Structural Engineer. ● With educational training on civil or structural engineering design registered at/under Philippine Institute of Civil Engineers (PICE) or Association of Structural Engineers of the Philippines (ASEP). ● Preferably with Doctorate or Master's degree or other degree related to the profession.
Professional Electrical Engineer	1	o Graduate of B.S. in Electrical Engineering with valid PRC license. o With minimum of five (5) years of experience on his/her profession. o With educational training on electrical design o Preferably with Doctorate or Master's degree or other degree related to the profession.
Professional Mechanical Engineer	1	o Must be a Professional Mechanical Engineer with valid PRC license. o With minimum five (5) years of experience on his/her profession. o With educational training on mechanical design. o Preferably with Doctorate or Master's degree or other degree related to the profession.
Professional Electronics and Communications Engineer or Electronics Engineer	1	● Graduate of B.S. in Electronics Engineering or B.S. in Electronics and Communication Engineering with valid PRC license ● With minimum of five (5) years of experience on his/her profession. ● With educational training on electronics or electronics and communications design.

		o Preferably with Doctorate or Master's degree or other degree related to the profession.
Sanitary Engineer	1	o Graduate of B.S. in Sanitary Engineering or B.S. in Environmental and Sanitary Engineering with valid PRC license o With minimum of five (5) years of experience on his/her profession. o With educational training on sanitary engineering or environmental and sanitary engineering such as waterworks, sewage, and drainage systems. o Preferably with Doctorate or Master's degree or other degree related to the profession.
TOTAL	8	

A.2. Construction Supervision Management Services

The Consultant shall provide different personnel for the construction supervision management of the project.

POSITION	NUMBER OF PERSONNEL	QUALIFICATIONS
On-Site Architect (Site visit shall be as needed)	1	o Licensed Architect o At least five (5) years experience in the supervision of projects of similar or greater magnitude and complexity.
Civil/Structural Engineer (Full Time)	1	o Licensed Civil/Structural Engineer. o At least five (5) years experience in the supervision of projects of similar or greater magnitude and complexity.
TOTAL	2	

B. The CONSULTANT may provide additional personnel for the proper and timely completion of the project, but at no additional cost to PSHS-MRC.

C. The CONSULTANT must provide the Professional Regulation Commission (PRC) License and Professional Tax Receipt (PTR) of assigned staff for this project, as well as any relevant proof of skills, qualifications, work experience and professional certifications that shall establish the qualifications of the staff for the job.

D. There shall be no replacement of identified Architect and/ or Structural Engineer assigned in the project until after fifty percent (50%) of the personnel

man-months have been served, except for justifiable reason/s. Any replacement shall be approved by the Head of the Procuring Entity (HOPE)

VI. SCOPE OF WORK & SERVICES

The Consultant shall undertake the Architectural and Engineering Design Services for the (a) Construction of Multi-Purpose Gymnasium; and (b) Construction of Academic Building II for the Philippine Science High School MIMAROPA Region Campus (PSHS-MRC) in accordance with accepted industry standards, codes and procedures. The Consultant shall also render services during bidding and building construction.

The scope of services to be rendered by said Consultant shall include but not limited to the following:

A. Pre-Design Phase

A.1. Consults with the Head of the Procuring Entity (HOPE) to ascertain the project objectives and requirements, its general size and scope of the project and its location on the site. The consulting services under this category include the following:

A.1.i. Ocular inspection of the site and its immediate vicinity for proper disposition of the structure and its utilities.

A.1.ii. Reconnaissance, topographical and the other engineering and land surveys, soil and foundation investigation.

A.1.iii. Preparation of preliminary architectural and engineering designs, layout, outline specific recommendations prior to actual design of the (a) Construction of Gymnasium; and (b) Construction of Academic Building II.

The CONSULTANT shall submit to the Head of Procuring Entity (HOPE), within Thirty (30) calendar days from receipt of the Notice to Proceed (NTP), the work plan and schedule.

A.2 Schematic Design Phase

A.2.i Prepares the following:

A.2.i.1. Preliminary architectural and engineering designs, lay-outs, and other needed working drawings taking into consideration the elderly, differently abled and gender concerns, subject to the approval of the HOPE;

A.2.i.2. Program of Work;

A.2.i.3. Specific recommendations prior to actual design.

A.2.ii. Submits the following:

A.2.ii.1. Preliminary Designs

A.2.ii.1.i At least three (3) perspective designs which shall complement with the existing PSHS-MRC Buildings and with ***PSHS Building Standards and Specifications***.

A.2.iii. Preliminary Engineering Studies;

A.2.iii.1. Technical and Material Specifications;

A.2.iii.2. Preliminary Cost Estimate;

Design cost range for the (a) Construction of Multi-Purpose Gymnasium and (b) Construction of Academic Building II estimated from Php22,000.00 to Php24,000.00 per square meter.

A.2.iii.3. Soil Investigation and Survey Works Report; and

A.2.iii.4. Recommendations.

The above items shall be submitted in three (3) original copies on A4 sized bond paper.

A.2.iv. Preliminary Architectural and Engineering Design (at any convenient
scale):

A.2.iv.1. Site Development Plan;

A.2.iv.2. Floor Plans:

A.2.iv.3. Sections;

A.2.iv.4. Equipment Plan and Lay Out; and

A.2.iv.5. Exterior perspective (not to scale).

The above items shall be submitted in three (3) original copies printed on regular-sized tracing/drawing paper (20 in. x 30 in.), three (3) in blueprints and three (3) original copies on size "A3" paper (389 mm x 273 mm).

A.2.v. Preliminary Design Report.

The foregoing Preliminary Architectural and Engineering Design shall be subject to the approval of the HOPE.

B. Design Development Design Phase (Basic Design)

B.1. Prepares and submits the following:

B.1.i. Detailed Architectural and Engineering Design of the project based on the approved schematic design, subject to the approval of the HOPE (at any convenient scale);

B.1.i.1. Site Development Plan;

B.1.i.2. Floor Plans:

B.1.i.3. Elevations:

B.1.i.4. Sections;

B.1.i.5. Furniture, Fixtures, Furnishings and Equipment Plan and Lay Out; and

B.1.i.6. Exterior perspective (not to scale).
The above items shall be submitted in three (3) original copies printed on regular-sized tracing/drawing paper (20 in. x 30 in.), three (3) in blueprints and three (3) original copies on size "A3" paper (389 mm x 273 mm).

B.2. Technical and Material Specifications;

B.3. Updated Statement of Probable Project Construction Cost; and

B.4. Summary Report based on Reconnaissance, Topographical & Land Survey, Soil Test, Engineering and Environmental Pre-requisites;

Items (B.1), (B.2) and (B.3) shall be submitted in three (3) original copies on A4-sized bond paper.

The foregoing Detailed Architectural and Engineering Design shall be subject to the approval of the HOPE

C. Contract Documents Phase (Final Design)

C.1. Prepares and submits the following:

C.1.i. Complete Construction Drawings based on the approved detailed architectural and engineering design setting forth in detail the work required for the architectural, structural, electrical, sanitary, mechanical, service connected equipment and site work:

C.1.i.1. *Architectural Plans*

- Location Plan (drawn within a 2-km radius);
- Site Development Plan, including Landscaping Plan (at scale

1:200M standard or any convenient scale for large scale development);

- Exterior Perspective (at eye-level if single structure and at bird's eye view if more than one structure);
- Floor Plans of different levels (at scale of not less than 1:100M);
- Elevations (at least four sides and at scale of not less than 1:100M);
- Furniture, Fixtures, Furnishings and Equipment Plan and Lay-out (at any convenient scale but not less than 1:100M and details at any convenient scale); and
- Detail Drawings (at any convenient scale).

C.1.i.2. *Structural Plans*

- Foundation Plan (at scale of not less than 1:100M);
- Floor Framing Plan (at scale of not less than 1:100M);
- Roof Framing Plan (at scale of not less than 1:100M);
- Spot Details (at any convenient scale);
- Details of Footing (at any convenient scale);
- Details of Column (at any convenient scale);
- Details of Beams and Girders (at any convenient scale);
- Details of Slab on Fill and Suspended Slabs (at any convenient scale); and
- Details of Structural Members such as stairs, canopy, gutter, parapet, etc. (at any convenient scale).

C.1.i.3. *Plumbing and Sanitary Plans*

- Plumbing and Sanitary Plan and Layout which include Sewer, Drainage and Downspout and Water Distribution Lines (plan at scale of not less than 1:100M, and details at any convenient scale);
- Isometric Drawings of rough-ins (at any convenient scale); and
- Detail Drawings (at any convenient scale).

C.1.i.4. *Mechanical Plans*

- General Mechanical Layout Plans indicating the equipment/name of machinery with corresponding brake horsepower (at scale of not less than 1:100M);
- Longitudinal and Transverse Sections showing inter-floor relations and defining manner of support (at scale of not less than 1:100M);
- Isometric Drawing of Piping System (at scale of not less than 1:100M);

- Fire Protection Plan/Layout (at scale of not less than 1:100M);
- Duct Work Plan/Layout (at scale of not less than 1:100M);
- Detail of Machinery Foundation and Support;
- Complete Machinery List; and
- Detail Elevators (when applicable).

C.1.i.5 *Electrical Plans*

- General Electrical Layout with Legends (at scale of not less than 1:100M);
- Lighting and Power Layout with Riser Diagram, Line Diagram, Electrical Load Schedule and the Design Analysis (at scale of not less than 1:100M); and
- Cable Lay-out (at scale of not less than 1:100M)

C.1.i.6 *Electronics and Communications Plans*

- General Structured Cabling Layout with Legends (at scale of not less than 1:100M);
- Structured Cabling with Riser Diagram, Line Diagram, and Schedule (at scale of not less than 1:100M);
- Voice and Data Network, Audio-Video System, CCTV and other Wire and
- Cable Lay-out (at scale of not less than 1:100M).

The above items shall be submitted in three (3) original copies printed on regular-sized tracing/drawing paper (20 in. x 30 in.), three (3) in blue prints and three (3) original copies on size "A3" paper (389mm x 273mm) and one (1) soft copy in licensed ACAD format.

C.1.i.7. *Other Pertinent Documents*

- Structural Design Analysis
- Boring and Plate Load tests
- Seismic Analysis
- Geodetic Survey for the footprints of the existing and proposed buildings
- Environmental Compliance Certificate (ECC) or Certificate of Non-Coverage (CNC), whichever is applicable
- Technical specifications describing the type and quality of materials, finishes, manner of assembly or construction and the General Conditions under which the project is to be constructed
- Priced Bill of Quantities
- Unit Cost Analysis
- Proposed Construction Schedule and Estimated Cash Flow that

may be implemented in phases in accordance with the available budget for the project.

- General Conditions.

The above items shall be submitted in three (3) original copies on A4-sized bond paper and one (1) soft copy in MS Office Format. The foregoing Construction Drawings shall be subject to the approval of the HOPE.

D. Bidding Phase

D.1. Furnish the HOPE with not less than five (5) complete sets (in USB/CD and in 20 in. x 30 in. hard copy) of Construction Drawings, Specifications, Bill of Quantities and General Conditions of the Design.

D.2. Furnish the HOPE, for approval, with not less than five (5) complete sets (in USB/CD and in 20 in. x 30 in. hard copy) of Supplemental Drawings as required by the Bids and Awards Committee in order to clarify bidders' inquiry prior to bid opening.

D.3. Assists and advises the HOPE in securing bids and in preparing formal contract documents during bidding for the Works Contractor/s for the project.

Hard copies shall be in A4-sized bond paper. Soft copies shall be in MS Office format saved in USB/CD's.

E. Construction Phase

E.1. Checks and approves the following:

E.1.i.1. Samples of materials and shop drawings and other requirements in accordance with the descriptive information and provisions of the Contract Documents; and

E.1.i.1. As-built drawings, shop and erection drawings submitted by Works Contractor

E.2. Prepares and submits supplementary drawings to suit actual field conditions in size "A3" paper (389 mm x 273 mm);

E.3. Conducts regular periodic visits of at least **two (2) times a week** for checking detailed construction, the progress of works and quality of materials and workmanship; to determine whether or not the work is in compliance with the approved designs, specifications and quality of the work based on the construction schedule and recommend appropriate action for any findings to the Procuring Entity;

E.4. Evaluate work accomplishment and recommend validity/propriety of progress billing submitted by the Project Contractor in coordination with the Construction Manager;

E.5. Submits written reports of any deviation from the specific quality/standard and descriptive information of the construction materials and workmanship as stated in the Contract and its Annexes in coordination with the Construction Manager;

E.6. Furnish the PSHS-MRC with monthly progress report and any such information relative to the project in coordination with the Construction Manager;

E.7. Observes performance tests and start-up and makes report thereon in coordination with the Construction Manager; and

E.8. Conducts punch-listing and final inspection, and prepares the report on the completed project in coordination with the Construction Manager.

All submissions, except Item (E.2), shall be in A4-sized bond paper.

F. The CONSULTANT shall assist the Procuring Entity to perform the following Post Construction Services but not limited to:

F.1. Prepare a checklist/punch-list of the defects/deficiencies and monitor the rectification works thereof in coordination with the Construction Manager;

F.2. Review accuracy and completeness of As-Built Plans/Drawings;

F.3. Collate all warranty agreements provided by the Contractor/Suppliers;

F.4. Prepare and issue the Certificate of Completion of Works based on the turnover reports submitted by the Project Contractor in coordination with the Construction Manager;

F.5. Prepare Final Completion Report.

G. Others

G.1. Attends regular coordination meetings with the HoPE, the Contractor, the Project Management Team and such other parties as may be required, or their designated representatives;

VII. PROJECT DOCUMENTATION

The CONSULTANT shall submit, among others that may be required, the following documents at each phase of the project:

A. Stage I – A&E Design

A.1. A&E Design work plan

A.2. Schematic Interior and Exterior Design

A.3. Design Development with detailed floor plan and Façade

A.4. Architectural and Engineering Contract Documents for Building Permit and Construction Purposes

A.5. Other documents required under Section 6.C.

B. Inception Report (documentations prior to the bidding for the (a); and (b) Construction of Academic Building II to be submitted within two (2) weeks upon the receipt of the Notice to Proceed (NTP), which shall include the final Manning Schedule for approval.

C. Stage II – Construction Supervision and Management Services (Project Monitoring)

C.1. Report/Documentation signed by members of the CSMS TEAM resulting from the evaluation of the (a) Construction of Gymnasium; (b) Construction of Academic Building II.

D. Stage III – Post Construction Services

D.1. Confidential Performance Rating of the CONTRACTOR, and suppliers for owner-supplied equipment and materials.

D.2. Final Project Report signed by the members of the CSMS TEAM

VIII. RESPONSIBILITIES OF PROCURING ENTITY

The BAC shall:

A. Receive/review/evaluate/recommend approval of the detailed architectural drawings and sketches within seven (7) calendar days from receipt thereof;

B. Receive/review/evaluate/recommend approval of documents pertaining to the engineering and technical studies conducted within seven (7) calendar days from receipt thereof;

C. Receive/review/evaluate/recommend approval of documents pertaining to the site analysis and investigation activities conducted within seven (7) calendar days from receipt thereof;

D. Receive the detailed engineering activities/work plan and schedule for the Construction of Gymnasium and Construction of Academic Building II.

E. Give prompt notice to the CONSULTANT, if there is any defect, modification or changes in the project scope;

F. Notify the CONSULTANT of its designated contracts;

G. Provide the CONSULTANT access to PSHS facilities subject to approval by the Head of Procuring Entity (HOPE) to enable the CONTRACTOR to perform their assigned tasks.

H. Provide the consultant with specific information and description about the location, particularly its boundaries and limits.

The HOPE shall:

I. Act within seven (7) days on the proposed Conceptual Project Design as recommended by the BAC, DBC and TWG, for review and evaluation;

J. Act within seven (7) days on the proposed detailed work plan, architectural drawings, and engineering plan with the corresponding costs and related documents subject for review and evaluation;

IX. CONFIDENTIALITY OF DATA

A. The ownership and all rights thereto of all designs, drawings, specifications, and copies thereof including electronic files, prepared, and furnished by the CONSULTANT in the performance of the services subject of the Agreement shall be vested with PSHS-MRC.

X. SERVICE LEVEL AGREEMENT

A. PSHS-MRC shall maintain a Service Level Agreement (SLA) with the CONSULTANT, with provisions for liquidated damages in case of their non-compliance. The Liquidated Damages is equal to one- tenth of one percent (0.1%) of the cost of the unperformed portion for everyday of delay. Once the cumulative amount of Liquidated damages reaches ten percent (10%) of the amount of the contract, the procuring entity shall rescind the contract, with prejudice to other courses of action of remedies open to it.

XI. WARRANTIES OF THE CONSULTANT

A. The CONSULTANT warrants that it shall conform strictly to the terms and conditions of these Terms of Reference.

B. The CONSULTANT warrants, represents and undertakes reliability of the service and that their manpower complements are hardworking, qualified/reliable and dedicated to do the service required to the satisfaction of PSHS-MRC. It shall employ highly skilled, well-behaved and honest employees with ID displayed conspicuously while working within the compound. The CONSULTANT shall not employ PSHS-MRC employees or their relatives to work in any category of the project whatsoever.

C. The CONSULTANT shall comply with the laws governing employees compensation, PhilHealth, Social Security and/or labor standards and other laws, rules and regulations applicable to its personnel employed on account of contracted services. The CONSULTANT shall pay its personnel not less than the minimum wage and other benefits mandated by law.

D. The CONSULTANT, in the performance of its services, shall secure and maintain at its own expense all registration, licenses or permits required by National or Local Laws and shall comply with the rules, regulations and directives of the Regulatory Authorities and Commissions.

E. The CONSULTANT's personnel shall take all necessary precautions for the safety of all persons and properties at or near their area of work and shall comply with all the standard and established safety regulations, rules and practices.

F. The CONSULTANT shall coordinate with any authorized and/ or designated PSHS – MRC personnel in the performance of their jobs.

G. The CONSULTANT shall be liable for loss, damage, or injury that may be due directly through the fault or negligence of its personnel. It shall assume responsibility thereof and the PSHS-MRC shall be specifically released from any responsibility arising there from.

H. The CONSULTANT shall neither assign, transfer, pledge nor subcontract any part or interest therein.

I. The CONSULTANT shall render service at no cost to PSHS – MRC in case of any extension of the contract duration.

XII. TERMS OF PAYMENT

A. The CONSULTANT shall be paid based on the percentage of work completed with a reasonable time from the submission of all the required documents, subject to the required Expanded Withholding Tax (EWT) of two percent (2%) and Final Withholding VAT of five percent (5%).

B. Payments shall be made upon completion and acceptance of work in each component:

Component I Field Study and Investigation, fifteen (30) calendar days	**20%**
Component II Architectural and Detailed Engineering Design, thirty (90) calendar days	**70%**
Post Warranty Security (refer to RA 9184 and IRR)	
Component III Project Supervision Phase, Periodic supervision for the duration of the project construction phase but not more than Six Hundred Sixty (660) calendar days from the receipt of the Notice to Proceed (NTP).	**10%**

XIII. PRE-TERMINATION OF CONTRACT

A. The contract for the Consultancy Services for the Architectural and Detailed Engineering (A&E) may be pre-terminated by the PSHS-MRC for any violation of the terms of the contract. In case of pre-termination, the CONSULTANT shall be informed by the PSHS-MRC thirty (30) days prior to such termination.

B. In case of pre-termination, the CONSULTANT shall be liable to an additional liquidated damages equivalent to one percent (1%) of the contract price as provided by the Government Accounting and Auditing Manual (GAAM) and forfeiture of the performance security.

C. The PSHS - MRC shall have the right to blacklist the CONSULTANT in case of pre-termination.

Prepared by:

DESIGN AND BUILD COMMITTEE:

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DBC Chair

CLINT JONN R. FONDEVILLA
Member

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