



**Construction of the
UP Mindanao
Center for Advancement of Research
in Mindanao -
CARIM Building Phase 3**

UP Mindanao Campus, Mintal,
Tugbok District, Davao City

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**PROJECT MANUAL
Volume 2**

**TERMS OF REFERENCE
- Construction -**

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CONSTRUCTION OF CARIM BUILDING PHASE 3 PROJECT MANUAL

TERMS OF REFERENCE

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PART I GENERAL PROJECT INFORMATION

1.0 PROJECT DESCRIPTION

1.1 PROJECT TITLE

Construction of the Office of Research – CENTER FOR ADVANCEMENT OF RESEARCH IN MINDANAO – CARIM BUILDING Phase 3

1.2 GENERAL DESCRIPTION

The project shall cover the Construction of the Center For Advancement of Research in Mindanao – CARIM Building Phase 3.

The project site of approximately **13,646.00 square meters** situated at the West side of the Campus Core along the Maguindanaoan Road is within the University of the Philippines Mindanao Campus, which is designated as an **Academic-2 (ACAD-2)/Academic Support Zone** in the ExeCom-approved UP Mindanao Campus Land Use Plan of 2016. It shall be developed to accommodate the standard requirements of a **Group C - Education and Recreation Division C - Training Centers and Facilities, Two (2)-storey** as prescribed by the National Building Code of the Philippines and other generally-accepted design standards for such facilities.

The construction shall be in accordance with the University-approved and issued Plans/Drawings, Technical Specifications, and Bill of Quantities, Bidding Documents, and this Terms of Reference (TOR).

1.3 PROJECT COMPONENTS

The project includes the following basic components:

Construction of the **Center for Advancement of Research in Mindanao – CARIM Building Phase 3**.

The project subject of this TOR, has Two (2) major work components:

- 1) **The Construction of the 2-storey Phase 3 building** with a total floor area of approximately One Thousand One Hundred and Thirty-five (1,135.00) square meters.
 - (a) Topographic Survey of the Project Site is defined in Annex A-1.
 - (b) Site Development and Buildings, including Structures, Site Facilities and Landscaping, 580 linear meter Perimeter Fencing. *The bid shall be based on the University-approved and issued plans/drawings, Technical Specifications, and Bill of Quantities.*
 - (c) Compliance with all applicable permits/licensing, provision of permanent power and water utilities connection and other documentary requirements.
- 2) **The completion of CARIM Phase 2 finishing works and Improvement and repair works for CARIM Phase 1.**

2.0 BACKGROUND AND LEGAL BASIS

In 2006, initial plans were crafted to expand the Office of Research into the Coordinating Arm for Research in Mindanao (CARIM), which was envisioned to take the lead in novel research along its research agenda, in particular prioritized issues in Mindanao (i.e., Biodiversity, cultural diversity and policy issues). CARIM was later named the “Center for the Advancement of Research in Mindanao.” CARIM will coordinate the various knowledge-generation and dissemination activities in the

colleges and network with various research institutions within Mindanao and across the country and around the world.

The CARIM building will be designed in line with the GREEN UP Initiative with an interior courtyard and gardens and surrounding gardens, rainwater catchment/harvesting facility, passive cooling systems to lessen reliance on air-conditioning and future plans for the installation of solar panels to produce green energy for the needs of CARIM facilities and surrounding buildings.

Sec. 22 (*Land Grants and Other Real Properties of the University*) of Republic Act No. 9500, "An Act to Strengthen the University of the Philippines as the National University", signed into law on 29 April 2008, provides that the UP Land Grants, or "parcels of land ceded by law, decree or presidential issuance to the University of the Philippines are...declared to be reserved for the purposes intended." RA 9500 confirms "the absolute ownership of the national university over these landholdings, including those covered by original and transfer certificates of title in the name of the University of the Philippines and their future derivatives..." Sec. 22 states that: "The Board may plan, design, approve and/or cause the implementation of land leases: *Provided*, That such mechanisms and arrangements shall sustain and protect the environment in accordance with law, and be exclusive of the academic core zone of the campuses of the University of the Philippines: *Provided, further*, That such mechanisms and arrangements shall not conflict with the academic mission of the national university." Sec. 23 (*Safeguards on Assets Disposition*) provides that "the preservation of the value of the assets of the national university shall be of primordial consideration," and that "the sale of any existing real property of the national university shall be prohibited: *provided*, that the Board may alienate real property donated after the effectivity of [RA 9500] if the terms of the donation specifically allow it."

Under the Philippine Development Plan 2017-2022, in the pursuit of *Ambisyon Natin 2040*, this project embodies 2 points in the 0-10 Point Socio-Economic Agenda which are:

No. 7 Invest in human capital development, including health and education systems, and match skills and training to meet the demand of businesses and private sector;

No. 8 Promote science and technology, and the creative arts to enhance innovation and creative capacity towards self-sustaining, inclusive development.

Thereby contributing to the attainment of a "*matatag, maginhawa at panatag na buhay para sa lahat*" under the strategies of providing infrastructure development for these agenda to work.

3.0 PROCUREMENT OVERVIEW

- 3.1 The procurement of this project will be conducted through open and competitive bidding in adherence to the declared policies of the 2016 Revised Implementing Rules and Regulations of Republic Act (RA) No. 9184, otherwise known as the Government Procurement Reform Act.
- 3.2 In case of Online Procurement procedures, the process shall adhere to the GPPB Resolution No. 09-2020, series 2020; GPPB Resolution No. 12-2020, Series 2020.
- 3.3 Eligibility requirements shall be subject to Section 23 and Section 24, Rule VIII, RA 9184 and in compliance with the requirements enumerated under the Instruction to

Bidders (ITB) and in the forms prescribed by the Government Procurement Policy Board (GPPB) for this type of procurement.

- 3.4 The determination of award to the winning bidder shall be subject to compliance with the minimum qualification requirements for this contract and through a series of pre-determined evaluation processes and procedures as enumerated under this Terms of Reference (TOR) and in accordance with the provisions of the 2016 Revised IRR of RA 9184 and other pertinent laws, circulars and orders.
- 3.5 UP shall accept the bid proposal determined to be most advantageous to the University and consider the award of the contract on the best value for money basis.
- 3.6 UP reserves the right to accept or reject any bid, to annul the bidding process, and to reject all bids at any time prior to contract award without thereby incurring any liability to the affected party/parties.

4.0 PROCUREMENT MODE

The Construction scheme of procurement was recommended, endorsed and adopted pursuant to the guidelines provided in Annex “A” and Annex “E” – *Guidelines for the Procurement and Implementation of Contracts for Infrastructure Projects* of 2016 Revised IRR of RA 9184.

5.0 PROCUREMENT OBJECTIVES

- 5.1 To build an Educational Research facility that factors in the following principles:
- (a) Comprehensive A&E concepts including:
 - (i) Sustainable building and green architecture and engineering concepts;
 - (ii) Safe building and resilient design concepts in response to climate change;
 - (iii) Natural ventilation and thermal comfort concepts;
 - (iv) Energy savings concepts through daylighting, electric lighting, power consumption monitoring, and solar power harvesting and use;
 - (v) Water use efficiency concepts, water consumption monitoring, and rainwater harvesting and reuse;
 - (vi) Expansibility and flexibility concepts;
 - (vii) Occupational hazards and environmental health concepts;
 - (viii) Site and culture sensitivity concepts; and
 - (ix) Other applicable concepts.
 - (b) Allows site development and building design adaptability to organizational, community and technological changes;
- 5.2 To build an Educational Research facility that:
- (a) Is according to the University-approved complete A&E plans and related documents;
 - (b) Translates the intended A&E design concepts to the site development and building design;
 - (c) Is constructed with quality materials and according to construction standard methods and procedures;
 - (d) Is constructed on time and within the construction budget;
 - (e) Minimizes adverse impacts on the natural environment;
 - (f) Is adaptable and flexible for future vertical and/or horizontal expansion; and
 - (g) Can be occupied and is fully operational after move-in of the direct users.
- 5.3 To implement a turnover procedure in accordance with Part V Project Acceptance and Turnover.

6.0 GENERAL SCOPE OF WORK

6.1 UPON MOBILIZATION

- (a) The winning contractor shall be required to set up a **coordinating office or satellite office** with the required project site engineer/s and staff **in Davao City** to ensure smooth and efficient project implementation.
- (b) The winning contractor must coordinate with UP MINDANAO on other on-going projects simultaneously being implemented within the project premises.
- (c) The winning contractor shall be responsible for the site clearing including cutting of trees planted by informal settlers and in compliance with the requirements of all relevant government agencies.

6.2 CONSTRUCTION PHASE for PHASE 3 and PHASE 2 FINISHING WORKS: (Detailed Scope as indicated in Annex A-2 Phase 3 Plans and Annex A-3 Phase 2 Plans.)

- (a) General Requirements:
 - (i) Mobilization
 - (ii) Permit to Construct (PTC)
 - (iii) Permits (Building Permit, Electrical Permit, Sanitary Permit, Mechanical Permit, Zoning Permit, Fire Safety Permit, etc.)
 - (iv) Project Billboard
 - (v) Health and Safety Provisions
- (b) Site Clearing Works
- (c) Temporary Facilities and Facilities for the Engineer/PM Team
- (d) Topographic Survey of the Site and submission of Signed and Seal Survey Plan
- (e) Earth Works (*excluding Phase 2*)
- (f) Structural Works (*excluding Phase 2*)
- (g) Architectural Works
- (h) Site and Landscape Architectural Works
- (i) Sanitary/Plumbing Works
- (j) Electrical Works - Lighting and Power Supply and Installation
- (k) Auxiliary Works
 - (i) Telephone System
 - (ii) Data Communication and Networking System
 - (iii) Closed Circuit Television (CCTV) System
- (l) Mechanical Works
 - (i) Supply and Installation of Rainwater Catchment System
 - (ii) Supply and Installation of Fire Sprinkler System
- (m) Architectural Interior Design Works
- (n) Room Identification, Hazard Warnings, and Wayfinding Signage Systems
- (o) Testing and Commissioning
- (p) Environmental Corporate Responsibility Compliance

7.0 PROJECT DURATION

- 7.1 The Approved Period for the Construction Phase is **Three Hundred and Sixty-five (365) calendar days** starting seven (7) calendar days from the receipt by the Contractor of the Notice to Proceed (NTP).

END OF PART I

PART II BIDDING PHASE

1.0 PROPONENT'S/BIDDER'S RESPONSIBILITIES

- 1.1 The Proponent/Bidder shall be responsible for taking the necessary steps to carefully examine all documents. It also rests upon the Proponent/Bidder to acknowledge all conditions, local or otherwise, affecting the carrying out of the contract works, and to arrive at an estimate of the facilities available and needed for the Project. Failure to do so shall be at the Proponent's/Bidder's risk.
- 1.2 It shall be the sole responsibility of the Proponent/Bidder to determine and suit himself by such means as he considers necessary or desirable as to all matters pertaining to the Project, including the location of the project site and nature of work, climatic conditions, nature and condition of the terrain, geological conditions at the site; transportation and communication facilities, requirement and availability of materials, labor, water, electrical power and roads; location and extent of aggregate source; and other factors that may affect the cost, duration and execution of the work. The Proponent/Bidder, by the act of submitting his proposal, acknowledges that he has inspected the site and determined the general characteristics of the Project and the conditions indicated above. The University requires an affidavit, duly notarized, of such site inspection from the Proponent/Bidder.
- 1.3 It shall be the responsibility of the Proponent/Bidder to check and verify the location of existing water, electrical, and other utility tapping points, sewer lines, and storm drainage and incorporate such in their bid. In the event that historical infrastructure plans are not available, the proponent/bidder shall include a line item that will cover the cost of completing the geodetic site survey and soil investigation. The projected cost of preliminary surveys shall be submitted with bids.
- 1.4 Prior to submittal of proposals, it is assumed that the Proponent/Bidder is already familiar with all existing laws, decrees, ordinances, acts, and regulations of the Philippines, which may affect or apply to the operations and activities of the contractor. However, in the case where the cost of the awarded contract is affected by applicable new laws, decrees, ordinances, regulations and other acts of government promulgated after the date of submission of proposals, a contract price adjustment may be made or appropriate relief be applied on a no loss-no gain basis provided such is not covered by the provisions on price escalation hereof and subject further to the availability of funds.
- 1.5 The Proponent/Bidder shall include a pay item in the Bill of Quantities (BOQ) that shall cover any and all expenses incurred in the clearing of the site, including removal of all affected trees and all other existing obstructions.
- 1.6 The Bidder shall verify the quantities in the Cost Estimate Form (CEF) provided and shall be responsible for its accuracy and completeness, in the same way that the Contractor shall be responsible for the accuracy and completeness of the BOQ, such that all items of work, quantities, materials, plant, tools, equipment and labor to complete the Project shall be covered in his Bid. All items of work, materials, plant, tools, equipment and labor inadvertently missing in the CEF and the BOQ but called for in the Plans, Specifications and other Bid Documents shall be provided by the Contractor at no extra cost to the University. Submitted filled-up CEF's imply that the Bidder has verified all the items and the quantities and agrees that the CEF is in accordance with the Plans, Specifications and other Bid Documents. In addition, the Contractor is also required to submit a Detailed Unit Price Analysis (DUPA) for all cost items in the approved BOQ.

- 1.7 Finally, the Contractor is responsible for completing the Project in accordance with the Plans, Specifications and the other Bid Documents.

2.0 ELIGIBILITY AND QUALIFICATION

All submittals and attendances required for this bidding and enumerated in the Invitation to Bid must be strictly complied with, without exemption to the place, date and time unless otherwise modified with proper notification through Bid Bulletin by the University. The eligibility requirements and qualification process shall be in accordance with the provisions of Annex “A” and Annex “E” of the 2016 Revised IRR of RA 9184.

- (a) The eligibility requirements shall be in accordance with the provisions of Section 23.1 of the 2016 Revised IRR of RA 9184;
- (b) The eligibility criteria shall be in accordance with Section 23.4.2 of the 2016 Revised IRR of RA 9184 for the procurement of Infrastructure projects.

3.0 PROJECT COST ESTIMATES

The Proponent/Bidder shall prepare and submit for the purpose of the Bill of Quantities (BOQ) in his contract, a detailed cost estimate in accordance with the limit of the available Approved Budget for the Contract (ABC) and following the sequence of priorities for the Construction Phase below:

- a. General Requirements
 - i. Mobilization
 - ii. Permit to Construct (PTC)
 - iii. Permits (Building Permit, Electrical Permit, Sanitary Permit, Mechanical Permit, Zoning Permit, Fire Safety Permit, etc.)
 - iv. Project Billboard
 - v. Occupational Health and Safety Provisions
- b. Site Clearing Works
- c. Temporary Facilities and Facilities for the Engineer/PM Team
- d. Earth Works
- e. Structural Works
- f. Architectural Works and Finishes
- g. Sanitary/Plumbing Works and Finishes
- h. Electrical Works and Finishes- Provision and Installation of Lighting and Power Supply
- i. Auxiliary Works and Finishes
 - i. Telephone System
 - ii. Data Communication and Networking System
 - iii. Closed Circuit Television (CCTV) System
 - iv. Fire Detection and Alarm System (FDAS)
- j. Mechanical Works and Finishes - Supply and Installation of Fire Sprinkler System
- k. Architectural Interior Works and Finishes
- l. Room Identification, Hazard Warnings, and Wayfinding Signage Systems
- m. Site and Landscape Architectural Works and Finishes
- n. Testing and Commissioning
- o. Environmental Corporate Responsibility Compliance

4.0 COST ESTIMATE GUIDELINES

- 4.1 In the preparation of the detailed cost estimates, the Proponent/Bidder shall use the Cost Estimate Form and Cost Estimate Guide to be provided by the University as a template/format and guide, respectively.
- 4.2 In the preparation of the detailed cost estimates, the Proponent/Bidder shall be guided by the following guidelines:
- (a) Direct Construction Cost means the sum of the amounts that the Contractor actually and necessarily incurs constructing the Work in strict compliance with the Construction Documents.
 - (b) Rental rates of equipment and hand tools (except those customarily owned by construction workers) supplied to the project site by Contractor shall be based on prevailing ACEL rental rates.
 - (c) Indirect cost computations shall be guided by the Department Order of DPWH DO 197 Series of 2016.
 - (d) Materials-market price means the costs of material (except those customarily owned by construction workers) supplied to the project site by the Contractor if such items are fully consumed in the construction of the Work. Cost for used items shall be based on fair market value. If an item is not fully consumed in the construction of the Work, its cost shall be based on the actual cost of the item less its fair market salvage value.
 - (e) The labor component of the cost estimates shall follow the ranges provided in the ordinance and the latest wage order of the Department of Labor and Employment (DOLE) Region XI.
Note: Winning bidder shall provide copy of DOLE Latest wage order.

5.0 UNIT PRICE ANALYSIS

The Proponent/Bidder shall draw up a Detailed Unit Price Analysis (DUPA) for each of the pay item indicated in the Bill of Quantities (BOQ). A template is provided for in Annex B.

END OF PART II

PART III CONSTRUCTION PHASE

1.0 CONTRACTOR'S RESPONSIBILITIES

GENERAL PROVISIONS

- a) **90-day Early Event Schedule** - Shall be provided to the CPDO no later than 14 calendar days after Contract Effective Date. The 90-Day Early Event Schedule is an interim working schedule to alert all work groups of schedule obligations at Project initiation, critical key milestones. This Schedule is driven by priorities established by the Contractor Master Project Schedule & Summary Schedules (CMPS). It lists all Project milestone dates chronologically, and details all key activities to be started, underway, or completed within the first 90 days of the Project. The 90-Day Early Event schedule shall be maintained and updated as the execution schedule and where all project progress will be evaluated.
- b) The **Project Manager/Engineer, Architectural, Mechanical & Electrical Coordinators** to be assigned during the implementation of works and their duties, responsibilities, and fee schedule, and the duration of their assignments are as bid out shown on Schedule "E" of the winning contractor, which is incorporated in this Terms of References. Such personnel shall not be replaced without the prior written consent of the University thru the office of the Campus Planning and Development Office (CPDO) which shall not unreasonably withhold such consent.
- c) **REPORTS** – Contractor shall prepare and submit Weekly and Monthly Progress Reports for all phases of the implementation of works required by CPDO. All reports shall be structured by major discipline including Occupational Health and Safety Report, and shall be summarized for the total of the Services. All reports shall be based upon the current agreed Schedule and shall include statistics and activities of Contractor. These instructions shall include the minimum requirements of the CPDO but Contractor is free to propose additional items that will enhance the value of the report.
- d) **PROJECT MEETINGS** - Prior to the commencement of Work, the Winning Contractor shall attend a kick-off conference with the CPDO and the End-user to discuss the Progress/Milestone Schedule, procedures for handling the project implementation, methodology and other submittals such as, but not limited to, Requests for Information (RFI) and Requests for Approvals (RFAs) of shop drawings, sample materials; and for processing Applications such as Building permits, and to establish a working understanding among the parties as to the Work. During the prosecution of the Work, the Contractor shall attend any and all meetings convened by the CPDO with respect to the Project undertaken, when directed to do so by CPDO, Contractor shall have its affiliates and other experts attend all such meetings as may be directed by the CPDO.
- e) **OWNERSHIP OF THE MATERIALS** - Any shop drawings, reports or other materials, graphic software or otherwise, prepared by the Contractor for the CPDO under this Contract shall belong to and remain the property of the University. The Contractor may retain a copy of such documents and software, exclusively for record purposes.
- f) **MINUTES OF MEETINGS**
Contractor shall prepare and distribute, minutes of all meetings (such as Vendor meetings, progress meetings, project management team meetings, etc.) within five (5) working days from date of the meeting.

- g) **SAMPLE ROOM** – A designated Sample Room for all approved materials, data sheets and other reference for the project has to be prepared for at the temporary facility which shall serve as control items during inspection.
 - h) **NON-FORMAL COMMUNICATIONS**
Non-formal communications, such as e-mails, telephone conversations, et cetera, that imply project decisions or transfer of information from which project action is to take place shall be documented by the Contractor as an established “Coordination Procedure”.
 - i) **CONFIDENTIALITY** - The Contractor shall not disclose any propriety or confidential information relating to the Services of this Contract without the prior written consent of the signatory of the University or his duly authorized representative.
- 1.1 The Contractor shall perform all services specifically allocated to it by the Contract Documents as well as those services reasonably deduced from the Contract Documents as necessary for completion of the Work and the Project. The Contractor agrees to perform these services using its best efforts, skills, judgments, and abilities.
 - 1.2 The Contractor shall at all times endeavor to further the interests of the University and complete the Project in an expeditious and economical manner consistent with the interests of the University and in accordance with the Project Schedule.
 - 1.3 The Contractor shall establish procedures for communication and coordination among the project team, subcontractors, separate contractors, and others with respect to all aspects of the construction of the Project, and implement such procedures.
 - 1.4 The Contractor shall establish and maintain a numbering and tracking system for all Project records, including changes, requests for information, submissions, and supplementary instructions and shall provide updated records at each Owner’s meeting and when requested.
 - 1.5 The Contractor shall promptly update the list of Contractor’s persons and consultants if they change during the course of the Project.
 - 1.6 The Contractor shall be responsible for the clearing of the site, including the removal of all affected trees and other existing obstructions.
 - 1.7 The Contractor shall be responsible for protecting existing trees and site elements that are to be retained and maintain during the course of construction and shall include restoration of affected elements in good order and condition during handover.

2.0 CONTRACTOR’S SCOPE OF WORK

- 2.1 The Contractor shall have the following minimum scope of work in the construction phase as outlined below. The Contractor shall perform other tasks not mentioned but may be required by the University or its representatives as long as such tasks are legally within their professional responsibility.
 - (a) Provide supplementary drawings required to suit actual field conditions and that further illustrate the design intent for portions or elements of the project that require detailing or revision/s;
 - (b) Furnish in a timely manner detailed construction and as-built drawings, shop, and erections drawings in accordance with the overall design or review and evaluate those that are submitted by the Contractor;
 - (c) Submit monthly reports to the University indicating construction progress, remarks, and suggestions pertaining to the project quality, workmanship, and compliance with the plans and specifications;
 - (d) Observe performance tests and start-up and make reports thereon; and

- (e) Conduct final inspection and report of the completed project.
- 2.2 Services during the Construction Phase may vary in accordance with the progress of the construction works, performance accomplishment of the Contractor, or other circumstantial events that may occur, as long as any changes are approved by the University.
- 2.3 All Request for Information (RFI) and Request for Approval (RFA) must be addressed using the University issued RFA/RFI Form with the attached supplementary shop drawings, comments and references, material samples, materials specification, and/or construction methodologies, etc.

3.0 PERMITS AND CLEARANCES

- 3.1 The Contractor shall pay for any and all expenses necessary and incidental for the University to be able to secure the following:
 - (a) Permit to Construct (PTC);
 - (b) Tree Cutting Permits from Department of Environment and Natural Resources (DENR) and the Philippine Coconut Authority (PCA) from the concerned government agencies, as necessary;
 - (c) Building Permit, Electrical Permit, Sanitary Permit, Mechanical Permit, Zoning Permit, Fire Safety Permit, Electronics Permit, Occupancy Permit, etc.
- 3.2 The Contractor shall, upon authorization by the City Government, make representation with the concerned government agencies to expedite the release of the same.

4.0 TEMPORARY STRUCTURES AND FACILITIES

- 4.1 The Contractor shall provide and maintain the following:
 - (a) Temporary office and/or quarters with water, light, telephone and toilet facilities for the Contractor's project team personnel.
 - (b) Temporary bunkhouses/quarters for the Contractor's workforce complete with toilet and bath facilities.
 - (c) Board-up and Temporary fencing of the construction site
- 4.2 Prior to the construction of the Temporary Facilities, the Contractor shall submit for approval the following:
 - a. The proposed Site Utilization Plan which will be reviewed and approved by the Campus Planning and Development Office (CPDO);
 - b. occupational health and safety policies and procedures and implement such standards stipulated in their manual.
- 4.3 The Contractor shall also prepare and implement a plan for egress upon completion of the project.

5.0 MOBILIZATION

- 5.1 The Contractor shall mobilize all the required project team personnel, equipment, tools, and manpower with the required skills and sufficient in number as may be necessary for his efficient undertaking of the project.
- 5.2 The Contractor shall submit the following with reference to the above:
 - a. Manpower Utilization schedule;
 - b. Equipment utilization schedule;
 - c. Procurement (Equipment and Materials) Schedule;

- d. GANTT Chart and PERT-CPM for monitoring purposes to be updated during the construction phase.

6.0 ENVIRONMENTAL CORPORATE RESPONSIBILITY (ECR)

- 6.1 The Contractor shall donate and plant native trees (1.2M to 1.5M in height) at the start of construction, in places designated by the University, at the rate of one tree per 100 square meters of construction area (excluding parking area). The Contractor shall use a variety of native tree species as specified by the University, to include two varieties or more of the following:
- a. *Petrocarpus indicus* (Narra)
 - b. *Cananga odorata* (Ylang-Ylang)
 - c. *Aquilaria malaccensis* (Agarwood)
 - d. *Diospyros philippinensis* (Kamagong)
 - e. *Dipterocarpus grandiflorus* (Apitong)
 - f. *Shorea astylosa* (Yakal)
 - g. *Shorea guiso* (Guijo)
 - h. *Shorea polysperma* (Tanguile)
 - i. *Vitex parviflora* (Molave)
 - j. *Xanthostemon verdugonianus* (Mangkono)
 - k. *Eucalyptus deglupta* (Bagras, or Rainbow Gum tree)
- 6.2 The Contractor shall maintain the tree saplings by watering and ring weeding during the construction period.
- 6.3 Dead saplings within the construction period must be replaced with the same species and height at least 30 days before project turn-over.

7.0 ELECTRIFICATION AND WATERLINE CONNECTION

The Contractor shall pay for expenses for the acquisition of the following utilities during construction phase:

- 7.1 power connection to the local electric utility/cooperative for the temporary lighting of the work area and temporary facilities;
- 7.2 waterline connection to the local waterline utility for the temporary waterline connection of the work area and temporary facilities

8.0 CONSTRUCTION SUPERVISION

- 8.1 The Contractor shall execute all the works under the contract in strict accord with standard engineering methodology and procedures and shall be responsible for maintaining cleanliness and orderliness, the health and safety of workers and the general public in the project area throughout the duration of the contract. The Contractor shall ensure that the site and its immediate environs are free of stagnant water that may encourage breeding of mosquitoes that may be detrimental to health.
- 8.2 The Construction Phase shall be deemed to commence upon the date specified in the Permit to Construct issued by the University after approval and shall continue until Final Completion of all Work.
- 8.3 The Contractor is required and shall designate as in writing a Project Engineer/Site Manager as the representative who is responsible for the day-to-day management of the Construction Phase Services. A Construction Logbook shall be kept on site to log and monitor the activities and other pertinent information for construction management to be prepared and signed by the Contractor's Project Engineer. The Engineer shall be the University's primary contact during the Construction Phase of the Project and shall be available as required for the benefit of the Project and the University. The

Project Engineer shall be authorized to act on behalf of and bind the Contractor in all matters related to Construction Phase Services including, but not limited to, execution of Change Orders and Applications for Payment.

- 8.4 The Contractor's designated representative, together with the Architectural, Structural, Mechanical, Electrical Coordinators (when needed and required during the project phase) shall attend University's regularly scheduled Project progress meetings and fully advise and update the Project Team of the Project status including utilization schedules (Manpower, Equipment, Material), costs, quality, Safety, and variation orders and changes.
- 8.5 The Contractor shall schedule, direct and attend interim progress meetings with other members of the Project Team as required to maintain Project progress. The Contractor shall record and distribute the minutes of each meeting to each Project Team member. The minutes shall identify critical activities that require action and the dates by which each activity must be completed.
- 8.6 The Contractor is responsible for all construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work. The Contractor shall keep the University informed of the progress and quality of the Work.
- 8.7 Failure to comply with the required submissions shall be a ground for Work Stoppage Order from CPDO for a minimum period of one (1) to five (5) calendar days or until the necessary has been complied with, period for which will be accounted on the project duration.
- 8.8 **Observance of Schedule and Deadlines**

Unless otherwise approved, the University and the Contractor shall perform their respective obligations under the Contract as expeditiously as is consistent with reasonable skill and care and the orderly progress of the Work.

Time limits stated in the Contract Documents are of the essence of this Agreement. The Contractor shall be responsible for schedule development, updating and reporting throughout the entire Project. The Contractor shall comply in all aspects of the requirements set forth in the University's Project Planning and Scheduling Specifications.

- 8.9 **Non-compliance to the Terms of Reference (TOR)**

The Contractor shall be subject to performance evaluation as deemed necessary by the University for any non-compliance to the TOR that may affect the overall implementation and progress of the project. Evaluation include the itemized calculation of the fulfilment of the deliverables and projected output and shall be basis for the liquidated damages that may be incurred should the non-compliance advances to delays to the project. Any resolution to the evaluation shall be subject to the provisions stipulated in the 2016 Revised IRR of the Republic Act 9184, otherwise known as the Government Procurement Reform Act Rule XXII Section 68, and Annex E Section 8 of the same.

Note: Submittal of progress reports: Under Section 2.1 (c) Contractors Scope of Works: Deliverables shall cover two (2) weeks period and shall be submitted within the next 3 working days.

9.0 QUALITY CONTROL

The Contractor shall comply with the Minimum Material Testing Standards and Special Inspection and Testing Requirements.

The Contractor shall provide quality assurance for the construction of the seismic force resistance system designed by the Structural Engineer of Record by recording periodic inspections and testing of structural components in a timely manner during construction. The system may include structural elements such as a steel intermediate moment resistance frame and concrete shear walls, and additional systems such as anchorage of equipment and exhaust ducts containing hazardous materials, anchorage of piping systems and mechanical units containing flammable, corrosive or toxic materials, anchorage or electrical equipment used for emergency and standby equipment.

10.0 CONSTRUCTION DURATION

- 10.1 The approved period for the Construction of the UP Mindanao Center For Advancement of Research In Mindanao – CARIM Building Phase 3 at the UP Mindanao Campus is **Three Hundred Sixty-five (365) calendar days**, starting on the date stated on the Notice to Proceed (NTP) issued by the University.
- 10.2 The Contractor **can only start the mobilization of the project once the Permit to Construct (PTC) is be issued** by the Campus Planning and Development Office (CPDO) after the compliance of the needed requirements. The Checklist of PTC Requirement shall be issued upon the Pre-Construction Meeting.
- 10.3 The Contractor shall be responsible for programming a procurement schedule implying that he has studied the availability of materials within the immediate context of the site. He should also be responsible for revising the said schedule supposing there are unintended delays in the procurement of the said materials. The University should not be responsible for the cost of any delays for the Project related to labor and materials procurement.

11.0 CONSTRUCTION BUDGET AND SCHEDULE OF PAYMENTS

- 11.1 The University shall, upon the written request of the Contractor, make an advance payment in an amount **not to exceed twelve percent (12%) of total price** allotted for the construction phase of the project.
- 11.2 The **advance payment shall be made only upon the submission to and acceptance by the University of an irrevocable standby letter of credit of equivalent value from a commercial bank or a guarantee payment bond**, callable in demand, issued by a surety or insurance company duly licensed by the Office of the Insurance Commissioner and confirmed by the implementing agency.
- 11.3 The advance payment shall be repaid by the Contractor by deducting a percentage equal to that used for the advance payment from the periodic progress payments to be made to the Contractor.
- 11.4 The University shall pay the Contractor progress payments based on billings for actual works accomplished as certified by the Campus Planning and Development Office of the University. In no case shall progress billings 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.
- 11.5 All progress payments shall be subject to a retention fee of ten percent (10%). Such retention shall be based on the amount due to the Contractor prior to deductions and shall be retained from every progress payment until fifty percent (50%) of the value of the works, as determined by the University, is completed. If after fifty percent (50%) completion, the work is satisfactorily done and on schedule, no additional retention

shall be made, otherwise, the ten percent (10%) retention shall be imposed. The Contractor may, however, request for its release/substitution prior to Final Acceptance subject to the guidelines set forth in R.A. No. 9184 and its Implementing Rules and Regulations.

- 11.6 In addition to the ten percent (10%) retention mentioned above, the University reserves the right to deduct from the progress billing of the Contractor such amount as may be necessary to cover third-party liabilities, as well as uncorrected discovered defects in the project in the event that the costs of such liabilities, as well as uncorrected discovered defects in the project, exceed the ten percent (10%) already retained by the University.
- 11.7 The University shall issue a Certificate of Final Acceptance to the Contractor upon satisfactory completion of the project. Before such Certificate is issued, the Contractor shall submit a sworn statement certifying that all taxes due from it, and all obligations for materials used and labor employed in connection with the project have been duly paid. Final payment shall be made within a reasonable period upon the Final Acceptance by the University.
- 11.8 No payments made by the University shall be construed as a waiver of any claim for defects in the work materials or breach of obligations. Acceptance by the Contractor of final payment shall be deemed a waiver of all its claims except those previously made in writing which remains unsettled at the time of Final Acceptance.

12.0 MINIMUM CONSTRUCTION SAFETY AND HEALTH PROGRAM

- 12.1 In accordance with Safety requirements, the Contractor is responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The safety program shall comply with all applicable requirements of the Occupational Safety and Health Act of DOLE and all other applicable local laws and regulations and with the requirements.
- 12.2 The Contractor shall verify that appropriate safety provisions are included in the Construction Documents.
- 12.3 The Contractor shall abide by the following minimum safety and health program:
- (a) Safety Program
- (i) The Contractor shall comply with the health protocols for the new normal as imposed by the Department of Health, the Department of Public Works and Highways Department Order No. 39 and the University Health and Safety Guidelines in the prevention of virus infection. Proper facilities shall be put in place and health and safety information campaign to be visible and comprehensible for all site staff, workers and visitors at all times.
 - (ii) The contractor shall comply with the Occupational and Safety Program submitted and approved by CPDO and shall provide complete Personal Protective Equipment such as skull guards, raincoats, safety shoes, safety goggles, protective gloves and safety harness to workers who are assigned to hazardous areas and also to those working at height;
 - (iii) A regular toolbox meeting shall be held on site by the safety Officer to campaign and remind the construction personnel to the importance of safe work environment and to monitor and report unsafe practices, and to resolve safety issues the soonest possible time;
 - (iv) Operators, drivers, and other employees who handle equipment must thoroughly check their equipment, lubricate and handle them properly and should be cautious and practice safety measures at all times to avoid accidents while on duty;

- (v) Loose wires, octopus electrical connections, loose nails, bolts, and other pointed objects should be removed/avoided in the working areas to avoid possible injuries/accidents;
 - (vi) Seat belts are provided in every truck/vehicle that is being used in the project site;
 - (vii) Fire extinguishers are to be placed in equipment such as fuel truck; and
 - (viii) Employees are advised on the use of candles and other flammable materials to avoid the occurrence of fire. The University premises is a “No Smoking” Zone and shall be kept as such at all time.
- (b) Health Program
- (i) Upon entrance, every employee automatically becomes a member of SSS and PhilHealth Corporation;
 - (ii) A First-Aid Kit shall be made available on site to manage all types of injuries including basic cuts, scrapes and burns. It shall include over the counter medicines other first aid supplies ready for use in case of sickness or accidents. All serious injuries requiring medical attention shall be immediately brought to the nearest hospitals for proper treatment;
 - (iii) Employees are being lectured once in a while of personal hygiene, the number of children one family would have to be able to provide the family’s needs of food, clothing, and shelter; and
 - (iv) Strictly no drinking liquor and smoking during working hours to ensure safety and for health purposes.
 - (v) At the Contractor’s discretion, construction employees found to engage in unsafe construction site practices shall receive two warnings and training prior to termination.
 - (vi) The University has zero tolerance for unhealthy and unsafe behavior that may cause harm to the workers and especially to the members of the University community.

END OF PART III

PART IV RESPONSIBILITIES OF THE UNIVERSITY OF THE PHILIPPINES

1.0 BIDDING PHASE

The University, through the Campus Planning and Development Office (CPDO) and Physical Plant Office (PPO), shall guide the bidders in locating the existing water, electrical, and other utility tapping points, sewer lines, and storm drainage and provide the plans of such, only if available.

2.0 CONSTRUCTION PHASE

2.1 RIGHT-OF-WAY

Being the Owner-Developer, the University shall secure the necessary Right-of-Way and access to the site from the date of contract award until building construction and site work is completed.

2.2 ELECTRICAL FACILITIES

The University shall assist in securing the electrical facilities for the Project by filing the application with the local electric utility. The contractor shall pay for expenses for the acquisition of the power connection to the local electric utility/cooperative for the temporary lighting of the work area and temporary facilities.

END OF PART IV

PART V PROJECT ACCEPTANCE AND TURNOVER

1.0 POST-CONSTRUCTION PHASE

- 1.1 The Campus Planning and Development Office shall ensure that the completed works are:
- (a) In accordance with the issued “For Construction” contract documents (plans and specifications) approved by the End User (Office of Research), the Campus Planning and Development Office (CPDO), and the Owner (University of the Philippines Mindanao).
 - (b) The completed works are able to perform as expected and is constructed in a way to allow successful operations and certification.
 - (c) The defects listed in the punch-list after the inspections have been corrected/rectified.
- 1.2 Should the CPDO notice minor defects after completing the punch-list, new items may be added to the list which the Contractor shall correct prior to final acceptance.
- 1.3 The Contractor shall submit the following as part of Project turnover and closure:
- (a) **AS-BUILT PLANS**
The Contractor shall prepare and submit duly reviewed and approved as-built plans signed and sealed by an architect or civil engineer in the same sheet size and scale as the original drawings in two (2) reproducible copies, and in electronic format. CAD files prepared for the project shall be updated using the as-built plans and submitted to the Owner. The *.PDF format files shall be delivered with the CAD or BIM files.
 - (b) **CONSTRUCTION LOGBOOK**
The Contractor shall compile the duly filled up Construction Logbook as prepared and certified by the Contractor’s Project Engineer.
 - (c) **TURNOVER OF BUILDING KEYS** properly labelled, prepared in minimum 3 original copies, separated with proper identification and transmittal as tested on site.
 - (d) **TESTING CERTIFICATE**
The Contractor shall submit a testing certificates attesting that all utilities have been tested, functioning, and are ready for use.
 - (e) **GUARANTEE LETTER**
The Contractor shall provide a guarantee letter indicating that the Contractor is available 24/7 within one (1) year in case of concerns or problems that may arise in the project
 - (f) **OPERATION AND MAINTENANCE MANUAL**
The Contractor shall provide a compilation of Operations and Maintenance Manuals of all installed equipment and systems indicating the warranties, service center and maintenance schedules for reference.
 - (g) **OCCUPANCY PERMIT**
The Contractor shall submit the Occupancy Permit officially issued by the Davao City Office of the Building Official serving as a proof that the structure has been completed and is ready for occupancy.

2.0 FINAL ACCEPTANCE

Upon final acceptance of the Project, the retention money for the Project shall be released accordingly, upon the request and posting of the required one (1) year guarantee bond for contract.

END OF PART V