

Republic of the Philippines  
**University of the Philippines Mindanao**  
 Mintal, Tugbok District, Davao City

December 12, 2023

**BID BULLETIN NO. 02**  
**Detailed Architectural and Engineering Design (DAED) for the Proposed**  
**UP Mindanao Data Center (PBM 2023-28)**

This bid bulletin is issued to clarify some requirements in the Terms of Reference, as shown in the table below.

Original	Revised
<p>The Designer shall be responsible for hiring, under his supervision and coordination, his allied professionals and Design Team members to include the following:</p> <p>(i) Licensed Civil/Structural Engineer</p> <p>(ii) Licensed Sanitary/Plumbing Engineer</p> <p>(iii) Licensed Professional Electrical Engineer</p> <p>(iv) Licensed Electronics and Communications Engineer</p> <p>(v) Licensed Professional Mechanical Engineer</p> <p>(vi) Landscape Architect</p> <p>(vii) Data Center Design Professional (at least 1 yr. experience)</p> <p>(viii) and other manpower necessary to accomplish the project requirements, such as, but not limited to, the following:</p> <p>1. Draftsman or AutoCAD operator/ 3D Modeler or Renderer</p> <p>2. Quantity Surveyor/Estimator</p> <p>Except for the Data Center Design Professional who should have an inclusive experience and exposure to Data Center operation and design of at least two (2) years, all Design Team professionals shall have at least 5 years' experience and solid background in his/her discipline in Engineering Design and Development. Some experience in Data Center design and/or a certification from a reputable institution for Data Center Design Training/Accreditation would be a decided advantage.</p>	<p>The Designer shall be responsible for hiring, under his supervision and coordination, his allied professionals and Design Team members to include the following:</p> <p>(i) Licensed Civil/Structural Engineer; with minimum three (3) years of experience in building construction and completed at least two (2) Data Center Facility Construction Projects</p> <p>(ii) Licensed Sanitary/Plumbing Engineer</p> <p>(iii) Licensed Professional Electrical Engineer with a minimum two (2) years experience in the UPS-Electrical System installation, configuration and troubleshooting ;</p> <p>(iv) Licensed Electronics and Communications Engineer</p> <p>(v) Licensed Professional Mechanical Engineer, The assigned registered Engineer must have completed/certification on Technical Training on Precision Air-Conditioning Systems</p> <p>(vi) Landscape Architect</p> <p>(vii) - Data Center Design Professional; with at least 5 years' experience on Data Center Design, Build and Maintenance. With at least two (2) certifications of satisfactorily completed projects related to Data Center; or</p> <p>- Professional-Level Certified Data Center Professional (design, integration and implementation) 5 years' experience on Data Center Design, Build and Maintenance</p> <p>(viii) and other manpower necessary to accomplish the project requirements, such as, but not limited to, the following:</p> <p>1. Draftsman or AutoCAD operator/ 3D Modeler or Renderer</p> <p>2. Quantity Surveyor/Estimator</p> <p>All Design Team professionals shall have at least 5 years' experience and solid background in his/her discipline in Engineering Design and Development. Some experience in Data Center design and/or a certification from a reputable institution for Data Center Design Training/Accreditation</p>

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<p>PART IV DESIGN PHASE 2.2 DESIGN DEVELOPMENT PHASE</p>	<p>PART IV DESIGN PHASE 2.2 DESIGN DEVELOPMENT PHASE</p> <p>Includes the following</p> <p><b>(g) Design Simulations</b> – submission of Computational Fluid Dynamics (CFD) and Energy Modeling essential to validate efficiency. Baseline Power Usage Effectiveness (PUE) for UP Mindanao Data Center is set at 1.6. Contractor must provide these simulations in support of its committed PUE. Ideally, the committed PUE should be equal to the baseline, but DIC will accept and credit the Contractor for committing an achievable and realistic PUE closest to the baseline.</p> <p><b>(h) Cost Modeling</b> – develop and submit a 10-Year Total Cost of Ownership (TCO) for all works and equipment supplied, including but not limited to: (1) Expansion costs based on projected growth of 2 racks annually, (2) Equipment Refresh – per industry guidelines, (3) Support &amp; Maintenance Services and other relevant costs essential for a 10-year lifecycle of the facility.</p>

For guidance of all concerned.

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**a/PROF. ERWIN E. PROTACIO**

Chair, Bids and Awards Committee for Consulting Services

Received by the bidder:

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Signature over printed name/Date received