

# Technical Requirements and Conditions

## IB 2022-19 STRUCTURED LOCAL AREA NETWORK (LAN) CABLING AT LA TRINIDAD CAMPUS

*Project Description: Supply, Delivery, Installation, Testing and Commissioning of Structured LAN Cabling at La Trinidad Campus*

### I. Introduction

This Project Technical Requirements and Conditions provides the description of the project, the technical specifications, terms and conditions as well as documentary requirements to support the procurement process.

### II. Rationale

This project's purpose seeks to replace existing local area networks within the university with a structured cabling plan that incorporates both wired and wireless technology and flexible enough to adapt to future changes.

The network's slow response can be attributed, but not limited, to multiple cascading switches, and/or expanding a network using wireless equipment. The act that has caused much of the damage to these cables are building and/or pavement repairs around the campus.

Organizing these cable structures by installing wired connections where needed and providing secure, controlled and seamless wireless networks within university buildings will alleviate these problems.

This project seeks for deployment of a structured local area network (LAN) at the La Trinidad Campus.

### III. Scope of Work

The project requires the supply of materials, delivery, installation, commissioning, testing and provision of engineering services and maintenance service.

The service provider shall:

- a. Provide all necessary materials, labor and services
- b. Provide local technical support and maintenance service within next business day
- c. Conduct and provide a comprehensive report for each test and technical support service
- d. Provide maintenance within the warranty period
- e. Provide a single point of contact personnel

The University shall:

- a. provide installation plans identifying areas or locations for the cabling installations

- b. allow access of the service provider in the university premises during the installation of the cabling
- c. monitor the project's progress

#### **IV. Qualification Requirements**

The service provider:

- a. must have at least five (5) years of experience in supply, delivery, installation, testing and commissioning of network equipment and structured cabling system
- b. must have the capacity and ability to provide local maintenance services and technical support. A business office is at least present within the region
- c. have implemented at least 3 similar projects in the deployment of a structured copper cabling
- d. PhilGEPS registered

#### **V. Technical Requirements**

- a. Service provider must submit detailed work plan specifying installation design
- b. Service provider shall submit original copy of design proposal, brochures and other publications that supports compliance to the requirements
- c. Service provider is reachable through phone or email for technical support. Response time should be at least within the next business day
- d. Complete the delivery of the functional network within 100 days from the receipt of the Notice to Proceed
- e. Upon installation, the network shall be tested for continuity and speed. An inspection and acceptance report shall be issued by the university inspection team once all conditions and parameters are met
- f. Update the university of weekly progress with detailed report
- g. Electrical system installation must be supervised by a professional electrical engineer
- h. Structured copper cabling installation must be supervised by a professional electronics and communications engineer
- i. Service provider shall be responsible and accountable for the removal and proper disposal of debris, material and waste generated in the project
- j. Cabling Standard Comply to:
  - 1. ISO/IEC 11801:2002: International Standard for generic cabling for customer premises
  - 2. EIA/TIA 568B: Commercial Building Telecommunications Cabling Standard (2002)
  - 3. EIA/TIA 568B.2-1: Commercial Building Telecommunication Cabling Standard (2002).
  - 4. IEEE 802.3af/at

- k. Use IEEE certified outdoor CAT6 cables in locations where hallways are not completely covered, e.g CA, CAS Annex, CVM.
- l. Wall-mount Data Cabinet have/be:
  - 1. IP55 or IP65 compliant for outdoor types
  - 2. IP20 compliant for indoor types
  - 3. Exhaust fans
  - 4. Removable panels and door
  - 5. Sturdy door locks
  - 6. 10A Power strip
  - 7. Load capacity: at least 100kgs
- m. Warranty is 1 year minimum on materials, workmanship 1 year minimum

## **VI. Deliverables**

- a. Service provider shall submit detailed scope of work for proposed solution in coordination with the ICT Office. This shall include all wiring diagrams, description of materials to be used to produce the structured cabling infrastructure and timeline for major tasks of the Work
- b. The cable linking access switches should be installed redundantly to maximize the reliability
- c. Supply and install CAT6 UTP cable (full copper) that will be used for horizontal cabling from each wiring closet to each endpoint
- d. Supply and install electrical cables which will be terminated from UPS in each data cabinet installed complete with circuit breaker
- e. Centralize CAT6 outlets in a patch panel located in its respective floor.
- f. Supply and install patch panels in data cabinets
- g. Supply and install separation partitions, race ways, drilling and chiselling of walls for pulling cables, plastering and paintings of wall as necessary
- h. Properly identify and label both ends of data cables
- i. Test and verify that each and every network point is working
- j. Test and verify that each and every PoE network point is working
- k. Submit detailed documentation of the installation, termination and labels of data cabling

## **VII. Approved Budget for the Contract (ABC)**

The total ABC for the project is Php 3,862,615.55 inclusive of all applicable government taxes and service charges. The budget source is from CHED special project fund.

Note: refer to Annex B for detailed installation diagram and plan