



**SUPPLEMENTAL BID BULLETIN No. 2023-05-02**

**PROJECT: 2023-09G: UPGRADING OF CAMPUSES BACKBONE TO FIBER OPTIC**

This Bid Bulletin/Addendum No. 2023-05-02 is issued to modify or amend items in the Bidding Documents of the abovementioned project of the University. This shall form an integral part of the Bidding Documents of the said project.

Please be informed of the changes in the project:

PARTICULARS	CHANGES	
	FROM	TO
DELIVERY DAYS	60 calendar days	90 calendar days
Technical Specifications	<p>NETWORK INFRASTRUCTURE,            Installation of Aerial mounted Fiber Optic Cable with 32 terminations (22 termination for Bayombong and 10 Bambang)</p> <p>Length of Fiber for each termination (meters)</p> <p>Bayombong Campus</p> <ol style="list-style-type: none"> <li>1. Administration Building (Old) (255)</li> <li>2. Administration Building (155)</li> <li>3. Analytic Building (470)</li> <li>4. CA Building (155)</li> <li>5. CAS Building (265)</li> <li>6. CBE Building (295)</li> <li>7. CERMSD Building (290)</li> <li>8. CHE Building (335)</li> <li>9. Clinic Building (355)</li> <li>10. COE Building (150)</li> <li>11. CSIT Building (135)</li> <li>12. CTE Building (125)</li> <li>13. CVM Building (395)</li> <li>14. Farm Mechanic (150)</li> <li>15. Gymnasium (455)</li> <li>16. International House (420)</li> <li>17. Library Building (235)</li> <li>18. Men Dormitory (400)</li> <li>19. Nutrition Building (475)</li> <li>20. Phil Citrus Research Building (645)</li> <li>21. Registrar Building (270)</li> <li>22. Research Building (330)</li> </ol>	<p>NETWORK INFRASTRUCTURE,            Provision of Design, Supply, Delivery of Complete Materials/Accessories, and Complete Installation of Aerial mounted campus network connectivity up to 10Gbps Fiber Optic Cable with 32 terminations (4-core each termination, 22 terminations for Bayombong and 10 terminations for Bambang).</p> <p>Length of Fiber for each termination (meters)</p> <p>Bayombong Campus</p> <ol style="list-style-type: none"> <li>1. Administration Building (Old) (255)</li> <li>2. Administration Building (155)</li> <li>3. Analytic Building (470)</li> <li>4. CA Building (155)</li> <li>5. CAS Building (265)</li> <li>6. CBE Building (295)</li> <li>7. CERMSD Building (290)</li> <li>8. CHE Building (335)</li> <li>9. Clinic Building (355)</li> <li>10. COE Building (150)</li> <li>11. CSIT Building (135)</li> <li>12. CTE Building (125)</li> <li>13. CVM Building (395)</li> <li>14. Farm Mechanic (150)</li> <li>15. Gymnasium (455)</li> <li>16. International House (420)</li> <li>17. Library Building (235)</li> <li>18. Men Dormitory (400)</li> <li>19. Nutrition Building (475)</li> </ol>

	<p>Bambang Campus</p> <ol style="list-style-type: none"> <li>1. Administration Building (224)</li> <li>2. CIT Building (270)</li> <li>3. CBA Building (225)</li> <li>4. CTE Building (246)</li> <li>5. Engineering Building (220)</li> <li>6. Engineering Science Lab (270)</li> <li>7. Gymnasium (250)</li> <li>8. IP Ladies Dormitory (350)</li> <li>9. Stadium (480)</li> <li>10. TVEP Twin Building (205)</li> </ol> <p>Total Length: 9,500 meters  1 lot -Outdoor Self-supporting  Fig. 8 Unitube Light Armored Optical Fiber Cable, Steel Tape, 4 Core  The fiber, 250um are positioned in a loose tube made of a high modulus plastic. Message steel wire used to be self-supporting material. Use steel tape to be an armor. The cable is completed with a PE-sheath.</p> <p>Outdoor Self-supporting Fig. 8 Stranded Loose Tube Optical Fiber Cable, Steel Type, 48 Core, Single Mode, G652D. The fiber, 250um, the tubes are filled with filling compound. A steel wire locates in the center of the cable as a center strength member. Message steel wire used to be self-supporting material. Use steel tape to be an armor. The cable is completed with a PE sheath.</p> <p>Outdoor Self-supporting Fig. 8 Stranded Loose Tube Optical Fiber Cable, Steel Type, 8 Core, Single Mode, G652D. The fiber, 250um, the tubes are filled with filling compound. A steel wire locates in the center of the cable as a center strength member.</p>	<ol style="list-style-type: none"> <li>20. Phil Citrus Research Building (645)</li> <li>21. Registrar Building (270)</li> <li>22. Research Building (330)</li> </ol> <p>Bambang Campus</p> <ol style="list-style-type: none"> <li>1. Administration Building (224)</li> <li>2. CIT Building (270)</li> <li>3. CBA Building (225)</li> <li>4. CTE Building (246)</li> <li>5. Engineering Building (220)</li> <li>6. Engineering Science Lab (270)</li> <li>7. Gymnasium (250)</li> <li>8. IP Ladies Dormitory (350)</li> <li>9. Stadium (480)</li> <li>10. TVEP Twin Building (205)</li> </ol> <p>Total Length: 9,500 meters  1 lot -Outdoor Self-supporting Fig. 8 Unitube Light Armored Optical Fiber Cable, Steel Tape, 4 Core  The fiber, 250um are positioned in a loose tube made of a high modulus plastic. Message steel wire used to be self-supporting material. Use steel tape to be an armor. The cable is completed with a PE-sheath.</p> <p>Outdoor Self-supporting Fig. 8 Stranded Loose Tube Optical Fiber Cable, Steel Type, 48 Core, Single Mode, G652D. The fiber, 250um, the tubes are filled with filling compound. A steel wire locates in the center of the cable as a center strength member. Message steel wire used to be self-supporting material. Use steel tape to be an armor. The cable is completed with a PE sheath.</p> <p>Outdoor Self-supporting Fig. 8 Stranded Loose Tube Optical Fiber Cable, Steel Type, 8 Core, Single Mode, G652D. The fiber, 250um, the tubes are filled with filling compound. A steel wire locates in the center of the cable as a center strength member.</p>
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	<p>Message steel wire used to be self-supporting material. Use steel tape to be an armor. The cable is completed with a PE sheath</p> <p>This FOC also includes the SFP Modules with the following specifications: 10G SFP+ Fiber Transceiver - Single-Mode 9.5Km (70 units),</p> <p>40G QSFP+ Direct Attach Copper Cable - 2 meters in length (2 units),</p> <p>10G SFP+ Directly attached Copper Cable - 2 meters in length (2 units),</p> <p>LC/APC Single Mode Duplex Adaptor LC/APC Single Mode Simplex Fiber Pigtail, 0.9mm, 1m cable length, G652d fiber type, with LSZH jacket,</p> <p>LC/APC-LC/APC Single Mode Duplex Optical Fiber Patch Cable, Ferrule outer diameter 1.2490 ± 0.0005(LC), LSZH Sheath, G652D, 2mm,</p> <p>Dome Optic Fiber Splice Closure, Two-in and Two-out, Basket Type (Tray 1x24F, 24 Core) Outer size (H*D) 420*140mm, weight 2.9kg,</p> <p>24-Port Optic Fiber Patch Panel (universal for ST, FC, SC, LC duplex, unloaded, without rail, 1 U. Specifications: material SPCC, surface spray, maximum bending space at least 30, maximum fiber count 48, insertion loss max 0.3 dB, return loss, at least 35, at least 60 dB (APC),</p> <p>Compliance:</p>	<p>Message steel wire used to be self-supporting material. Use steel tape to be an armor. The cable is completed with a PE sheath</p> <p>This FOC also includes the SFP Modules with the following specifications: 10G SFP+ Fiber Transceiver - Single-Mode 9.5Km (70 units),</p> <p>40G QSFP+ Direct Attach Copper Cable - 2 meters in length (2 units),</p> <p>10G SFP+ Directly attached Copper Cable - 2 meters in length (2 units),</p> <p>LC/APC Single Mode Duplex Adaptor LC/APC Single Mode Simplex Fiber Pigtail, 0.9mm, 1m cable length, G652d fiber type, with LSZH jacket,</p> <p>LC/APC-LC/APC Single Mode Duplex Optical Fiber Patch Cable, Ferrule outer diameter 1.2490 ± 0.0005(LC), LSZH Sheath, G652D, 2mm,</p> <p>Dome Optic Fiber Splice Closure, Two-in and Two-out, Basket Type (Tray 1x24F, 24 Core) Outer size (H*D) 420*140mm, weight 2.9kg,</p> <p>24-Port Optic Fiber Patch Panel (universal for ST, FC, SC, LC duplex, unloaded, without rail, 1 U. Specifications: material SPCC, surface spray, maximum bending space at least 30, maximum fiber count 48, insertion loss max 0.3 dB, return loss, at least 35, at least 60 dB (APC),</p> <p>Compliance: ISO/IEC 11801, ANSI /TIA 568-C.3 (32 units),</p>
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<p>ISO/IEC 11801, ANSI /TIA 568-C.3 (32 units),</p> <p>48-Port ODF (for 48 core LC, 96 core duplex LC, adaptor unloaded, 3U. Specifications: type 48 ports, size 482.5 x 295 x 3u mm, inner carton weight 8.6 kg, material SPCC power-coated, installation 19" standard rack-mounted, operating temperature -25OC ~ + 60 OC. Compliance: ISO/IEC 11801, ANSI/TIA/EIA 568-C.3. (3 units),</p> <p>Overhead Fiber Raceways / Cable Ladder (1 lot),</p> <p>ACCESSORIES 1U Cable Management Horizontal Mount 19-inch Server Rack, 24 Slot Metal Finger Duct Wire Organizer with Cover, Black, with cage nut (40 units),</p> <p>MC 6 UTP modular cords, Category 6 MC, double-ended, 4 pair UTP stranded modular patch cord, T568A/B, clear boot 1m, (24 units)</p> <p>Pole line hardware and Roughing-ins, Pole Clamps, Messenger Clamps, PVC pipes, Pull box, Cable ladder, Clamps, hangers, fittings, and consumables materials and tools (1 lot)</p> <p>4 units - Layer 3 24-Port 10G SFP++ 4-Port 100G SFP28 Managed Switch</p> <p>70 units- 10G SFP+ Fiber Transceiver (Single-Mode) - 32-Termination and 8spares</p> <p>8 units - Distribution - L3 24-Port 10/100/1000T 802.3at PoE</p>	<p>48-Port ODF (for 48 core LC, 96 core duplex LC, adaptor unloaded, 3U. Specifications: type 48 ports, size 482.5 x 295 x 3u mm, inner carton weight 8.6 kg, material SPCC power-coated, installation 19" standard rack-mounted, operating temperature -25OC ~ + 60 OC. Compliance: ISO/IEC 11801, ANSI/TIA/EIA 568-C.3. (3 units),</p> <p>Overhead Fiber Raceways / Cable Ladder (1 lot),</p> <p>ACCESSORIES 1U Cable Management Horizontal Mount 19-inch Server Rack, 24 Slot Metal Finger Duct Wire Organizer with Cover, Black, with cage nut (40 units),</p> <p>MC 6 UTP modular cords, Category 6 MC, double-ended, 4 pair UTP stranded modular patch cord, T568A/B, clear boot 1m, (24 units)</p> <p>Pole line hardware and Roughing-ins, Pole Clamps, Messenger Clamps, PVC pipes, Pull box, Cable ladder, Clamps, hangers, fittings, and consumables materials and tools (1 lot)</p> <p>4 units - Layer 3 24-Port 10G SFP++ 4-Port 100G SFP28 Managed Switch</p> <p>70 units- 10G SFP+ Fiber Transceiver (Single-Mode) - 32-Termination and 8spares</p> <p>8 units - Distribution - L3 24-Port 10/100/1000T 802.3at PoE + 2-Port 10G SFP+ Managed Switch</p>	<p>48-Port ODF (for 48 core LC, 96 core duplex LC, adaptor unloaded, 3U. Specifications: type 48 ports, size 482.5 x 295 x 3u mm, inner carton weight 8.6 kg, material SPCC power-coated, installation 19" standard rack-mounted, operating temperature -25OC ~ + 60 OC. Compliance: ISO/IEC 11801, ANSI/TIA/EIA 568-C.3. (3 units),</p> <p>Overhead Fiber Raceways / Cable Ladder (1 lot),</p> <p>ACCESSORIES 1U Cable Management Horizontal Mount 19-inch Server Rack, 24 Slot Metal Finger Duct Wire Organizer with Cover, Black, with cage nut (40 units),</p> <p>MC 6 UTP modular cords, Category 6 MC, double-ended, 4 pair UTP stranded modular patch cord, T568A/B, clear boot 1m, (24 units)</p> <p>Pole line hardware and Roughing-ins, Pole Clamps, Messenger Clamps, PVC pipes, Pull box, Cable ladder, Clamps, hangers, fittings, and consumables materials and tools (1 lot)</p> <p>4 units - Layer 3 24-Port 10G SFP++ 4-Port 100G SFP28 Managed Switch</p> <p>70 units- 10G SFP+ Fiber Transceiver (Single-Mode) - 32-Termination and 8spares</p> <p>8 units - Distribution - L3 24-Port 10/100/1000T 802.3at PoE with 4 shared SFP + 4-Port 10G SFP+ Managed Switch,</p> <p>24 units - Distribution - L3 8-Port 10/100/1000T 802.3at PoE + 2-Port 10G SFP+ Managed Switch</p>
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	<p>with 4 shared SFP + 4-Port 10G SFP+ Managed Switch,</p> <p>24 units - Distribution - L3 8-Port 10/100/1000T 802.3at PoE + 2-Port 10G SFP+ Managed Switch</p> <p>18 units - Unmanaged - 24-Port 10/100/1000BASE-T Gigabit Ethernet Switch –</p> <p>20 units - Access Points (Outdoor) WiFi6, dual band 2.4GHz/5GHz, 2x2-MIMO</p> <p>40 units - Access Points (Indoor) WiFi6, dual band 2.4GHz/5GHz, 2x2-MIMO</p> <p>5 boxes - CAT 6 UTP @ 300m System 6 UTP 4-pair Cable E3, Cable construction: UTP 4-pair, CM, CMR and LSOH jacket types available, insulation on CM: high density polyethylene, jacket nominal OD=5.84mm (0.22 in), conduction 23 AWG solid bare copper 0.57mm (0.022in), cross pair separator,</p> <p>6 boxes - RJ-45 @ 100pcs passthrough</p> <p>10 units - UPS 1000VA</p> <p>2 sets - Fiber Optic Fusion Machine Optical Fiber Type SM(G.652/G.657), MM(G.651), DS(G.653), NZDS(G.655), ED, BIF/UBIF Cladding 90-150um, diameter Coating 200-1000um Ave. splice loss 0.002dB(SM), 0.001dB(MM), 0.004dB(DS), 0.004dB(NZDS) Return Loss Better than 60dB Splice duration 9sec (typical mode), 7sec (fast mode) Display 4.3" colorized LCD X/Y:180 times, X or Y: 350 times 8. Power Supply 11.1N Lithium battery, 13.5V/5A power adaptor</p>	<p>18 units - Unmanaged - 24-Port 10/100/1000BASE-T Gigabit Ethernet Switch –</p> <p>20 units - Access Points (Outdoor) WiFi6, dual band 2.4GHz/5GHz, 2x2-MIMO</p> <p>40 units - Access Points (Indoor) WiFi6, dual band 2.4GHz/5GHz, 2x2-MIMO</p> <p>5 boxes - CAT 6 UTP @ 300m System 6 UTP 4-pair Cable E3, Cable construction: UTP 4-pair, CM, CMR and LSOH jacket types available, insulation on CM: high density polyethylene, jacket nominal OD=5.84mm (0.22 in), conduction 23 AWG solid bare copper 0.57mm (0.022in), cross pair separator,</p> <p>6 boxes - RJ-45 @ 100pcs passthrough</p> <p>10 units - UPS 1000VA</p> <p>2 sets - Fiber Optic Fusion Machine Optical Fiber Type SM(G.652/G.657), MM(G.651), DS(G.653), NZDS(G.655), ED, BIF/UBIF Cladding 90-150um, diameter Coating 200-1000um Ave. splice loss 0.002dB(SM), 0.001dB(MM), 0.004dB(DS), 0.004dB(NZDS) Return Loss Better than 60dB Splice duration 9sec (typical mode), 7sec (fast mode) Display 4.3" colorized LCD X/Y:180 times, X or Y: 350 times 8. Power Supply 11.1N Lithium battery, 13.5V/5A power adaptor Corrosion Resistance Equipment components, Parts, and materials meet composite anti-corrosion requirements, Anti-Fluid pollution. Heating Time 14sec Automatic Heating Automatic fiber identification &amp; Heating when Close Cover. Automatic Fast</p>
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	<p>Corrosion Resistance Equipment components, Parts, and materials meet composite anti-corrosion requirements, Anti-Fluid pollution. Heating Time 14sec Automatic Heating Automatic fiber identification &amp; Heating when Close Cover. Automatic Fast splicing 14s V-groove Fast Heating High-Quality Low Loss Typical Splicing Loss SM(<math>\leq 0.002</math>dB), MM(<math>\leq 0.001</math>dB) 4 motors, Super Precision 0.1um Water, Dust, Wind Resistance, High Altitude Titanium Alloy Body 5 Directionals Anti-shock PC Software Upgrade Data management. Configuration List Carrying Bag, Miller Pincers &amp; Stripper, Dust-Blowing Ball with brush, Fiber cleaver, AC Power Line Power Adapter, Cooling tray, Plastic tweezers, and Backup Electrode Bar Hand Tools Diagonal Cutter Plier Lineman Plier Long Nose Plier Kevlar Scissor</p> <p>10 pcs - Cabinet 12U</p> <p>2 units - Server, Intel Quad Core at least 3GHz 16GB RAM 1TB SSD 1U Rackmount</p> <p>3 units- Laptop, i5 16GB 500GB SSD 15.6" (Full HD) LED Monitor</p>	<p>splicing 14s V-groove Fast Heating High-Quality Low Loss Typical Splicing Loss SM(<math>\leq 0.002</math>dB), MM(<math>\leq 0.001</math>dB) 4 motors, Super Precision 0.1um Water, Dust, Wind Resistance, High Altitude Titanium Alloy Body 5 Directionals Anti-shock PC Software Upgrade Data management. Configuration List Carrying Bag, Miller Pincers &amp; Stripper, Dust-Blowing Ball with brush, Fiber cleaver, AC Power Line Power Adapter, Cooling tray, Plastic tweezers, and Backup Electrode Bar Hand Tools Diagonal Cutter Plier Lineman Plier Long Nose Plier Kevlar Scissor</p> <p>10 pcs - Cabinet 12U</p> <p>2 units - Server, Intel Quad Core at least 3GHz 16GB RAM 1TB SSD 1U Rackmount</p> <p>3 units- Laptop, i5 16GB 500GB SSD 15.6" (Full HD) LED Monitor</p>
<p>Additional specifications/ requirements:</p>		<p>The bidder must conduct a 1-day training for the basic troubleshooting, splicing, and fusing of fiber.</p> <p>The bidder must submit a High-level Network Design and Single Line Design Diagram for fiber optic backbone network interconnectivity based on the actual site survey.</p> <p>The bidder must provide original certification as an authorized installer and reseller partner from an authorized distributor as the basis for the 2-year warranty</p>

		<p>certificate for the equipment such as Network Switches, UPS, Access points and Fiber Optic Fusion Machine, 5-year product warranty for Fiber Optic Cables and components such as data cabinets, ODF, fiber optic panel fiber splice closures, fiber patch cords, pigtails, and adaptor.</p> <p>The bidder must submit a 5-year after-sales and free on-site technical support warranty certification.</p>
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For guidance and information of all concerned.

  
**ELMA P. APOSTOL**  
*UBAC Chairperson*

Received by the Bidder:

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