

BIDS AND AWARDS COMMITTEE

BID BULLETIN No. 23 s. 2023

22 November 2023

Projects:

Competitive Bidding:

1. Upgrading of Power Distribution System: Bird Guards Installation at Posts Pin Insulators
2. Upgrading of Power Distribution System: Distribution Line Upgrade at Zigzag Road Area
3. Realignment of Sewer Lines to Sewer Line Type A & B
4. Restoration of Street Signages Posts
5. Improvement of Administrative Offices

TO ALL PROSPECTIVE BIDDERS:

No.	Projects	Clarifications	Response
1	All projects	Can bidders submit their bids online?	No. Currently, only physical submission of bidding documents is allowed.
2	All INFRASTRUCTURE PROJECTS (Project Nos. 2-5)	Hierarchy of documents	<ol style="list-style-type: none"> 1. Contract 2. Bid Bulletin 3. Philippine Bidding Documents 4. Specifications 5. Plans & Drawings 6. Submitted Bill of Quantities 7. Submitted Detailed Estimate
3		Submission of DOLE approved Construction Safety and Health Program	To be submitted by the winning contractor upon issuance of Notice to Proceed prior to actual implementation.
4		Can bidders under Small A and Small B categories without similar experience participate in the bidding?	Section 23.4.2.4 of the RIRR of the RA 9184 states that: <i>"The bidder must have completed an SLCC that is similar to the contract to be bid, and whose value, adjusted to current prices using the PSA consumer price indices, must be at least fifty percent (50%) of the ABC to be bid: Provided, however, That contractors under Small A and Small B categories without similar experience on the contract to be bid may be allowed to bid if the cost of such contract is not more than the Allowable Range of Contract Cost (ARCC) of their registration based on the guidelines as prescribed by the PCAB."</i>



No.	Projects	Clarifications	Response
5	All INFRASTRUCTURE PROJECTS (Project Nos. 2-5)	Documents for submission and verification during post-qualification (Bidder's own format)	1. Construction schedule and S-curve 2. Manpower schedule 3. Construction method 4. Equipment utilization schedule 5. Certificate of Site Inspection (to be provided by the end-user unit upon conduct of site inspection) 6. Other document as required in the Specifications
6	Upgrading of Power Distribution System: Bird Guards	Is partial delivery allowed?	Yes, as long as the project is completed within 90 calendar days.
7	Installation at Posts Pin Insulators	Documents for submission and verification during post-qualification	1. Warranty
8	Upgrading of Power Distribution System: Distribution Line Upgrade at Zigzag Road Area	List of minimum key personnel requirements and the number of years of experience, and list of minimum major equipment requirements.	<i>Refer to the attached revised Bill of Quantities for the project.</i>
9	Realignment of Sewer Lines to Sewer Line Type A & B	Is there a designated disposal area for the debris/demolished materials? If yes, how far will it be?	Yes. The designated disposal area is within the Freeport Area of Bataan.
10		List of minimum key personnel requirements and the number of years of experience, and list of minimum major equipment requirements.	<i>Refer to the attached revised Bill of Quantities for the project.</i>
11	Restoration of Street Signages Posts	List of minimum key personnel requirements and the number of years of experience, and list of minimum major equipment requirements.	<i>Refer to the attached revised Bill of Quantities for the project.</i>
12	Improvement of Administrative Offices	What materials shall be used in the ceiling and flooring?	The materials for the ceiling and flooring are indicated in the Plans issued for the project.

No.	Projects	Clarifications	Response
13	Improvement of Administrative Offices	How much is the mobilization fund?	Mobilization Fund refers to the Advance Payment as stated in Annex E of the RIRR of RA 9184 which is equivalent to 15% of the Contract Amount.
14		List of minimum key personnel requirements and the number of years of experience, and list of minimum major equipment requirements.	<i>Refer to the attached revised Bill of Quantities for the project. (including revised Annex A)</i>
15		Detailed specifications for the Voice and Data Requirements	<i>Refer to the attached Specifications for the Voice and Data Requirements of the Project.</i>

All terms, conditions and instructions to bidders specified in the Bidding Documents inconsistent with this Bid Bulletin are hereby superseded and modified accordingly.

For the guidance and information of all concerned.



PERCIVAL B. PERALTA

BAC-Chairperson

BILL OF QUANTITIES (as of Nov. 22, 2023)Name and Signature of Bidder

Name of Company

BILL OF QUANTITIES (as of Nov. 22, 2023)

Minimum Key Personnel Requirements	One (1) Project Engineer One (1) Safety Officer	One (1) Construction Foreman
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Name of Company

III Demolition, Excavation, Disposal and Embankment						
3.1	Demolition & Disposal	m3	148.60	in words :	in words :	
				in figures :	in figures :	
	3.2	Excavation & Hauling	m3	455.80	in words :	in words :
					in figures :	in figures :
	3.3	Embankment/Fill	m3	453.00	in words :	in words :
					in figures :	in figures :
IV Sanitary Works						
4.1	Supply, Installation and Laying of ABS Pipes Supply of Acrylonitrile-Butadiene-Styrene (ABS) Sewer Pipes and Fittings (6") Use ABS Elbow 22.5 Use PVC Tee 6" UseABS Cement	l.m.	453.00	in words :	in words :	
				in figures :	in figures :	
V Civil and Structural Works						
5.1	Supply and Installation of Cast-iron Manhole Covers Supply of Cast-iron 800mm Diameter Round Supply of Cast-iron 600mm Diameter Round Supply of Cast-iron 400mm Square	pcs	52.00	in words :	in words :	
	5.2	Construction of Manholes Cement Gravel 3/4 & G1 Sand 10mm diameter deformed and round rebar gr. 40 G.I Wire #16 Metal Paint Epoxy	pcs	52.00	in words :	in words :
	5.3	Restoration of Roads, Canal, Stairs and Riprap Cement Gravel 3/4 & G1 Sand 10mm diameter deformed rebar gr. 40 G.I Wire #16 Metal Paint Epoxy 2" G.I. Pipe sch 40 1 1/2" x 1 1/2" x 3.5mm Angle Bar A36 Welding Rod, 6013 wipweld	m3	145.63	in words :	in words :
				in figures :	in figures :	

Name and Signature of Bidder

Name of Company

(Name of Company of Prospective Bidder)
(Address of Prospective Bidder)

BILL OF QUANTITIES (as of Nov. 22, 2023)

Contract Name **Restoration of Street Signages Posts**

Location of Contract **Freeport Area of Bataan**

Project Duration **45 C.D.**

Minimum Required One (1) Pavement Breaker One (1) Dump Truck
Major Equipment Two (2) Bagger Mixer

Minimum Required One (1) Project Engineer One (1) Construction Foreman
Key Personnel One (1) Safety Practitioner

Item No.	Description	Unit	Quantity	Unit Price	Amount
(1)	(2)	(3)	(4)	(5)	(6)
I	GENERAL REQUIREMENTS				
1.1.	Offices, Shops, Stores and Workers Accomodation for Contractor Workmens Accomodation for Contractors	month	1.00	in words :	in words :
				in figures :	in figures :
1.2.	Project Billboard/ Signboard Project Billboard/ Signboard	each	1.00		
				in words :	in words :
				in figures :	in figures :
1.3.	Mobilization / Demobilization	1.s	1.00	in words :	in words :
				in figures :	in figures :
1.4.	Occupational Safety and Health Program Provision of Safety & Health Program	days	15.00	in words :	in words :
				in figures :	in figures :
1.5.	Provision of Photographs	each	135.00	in words :	in words :
				in figures :	in figures :
Total for this page				P	

Name and Signature of Bidder

Name of Company

P

Name of Company

(Name of Company of Prospective Bidder)
(Address of Prospective Bidder)

BILL OF QUANTITIES (as of Nov. 22, 2023)

Contract Name	:	IMPROVEMENT OF ADMINISTRATIVE OFFICES
Location of Contract	:	Freeport Area of Bataan
Project Duration	:	180 C.D.
Required Key Personnel	:	One (1) Project Manager - w/ 5 years general experience & 3 years relative experience One (1) Project Engineer - w/ 5 years general experience & 3 years relative experience One (1) Construction Foreman - w/ 5 years general experience & 3 years relative experience One (1) Safety Health Officer - w/ 5 years general experience & 3 years relative experience Skilled Laborers (minimum of 40) Unskilled Laborers (minimum of 100)
Required Equipment	:	One (1) Unit Dump Truck and One (1) lot Tools for Cutting, chipping, and removal Outfit with Accessories

Item No.	Description	Unit	Quantity	Unit Price	Amount
(1)	(2)	(3)	(4)	(5)	(6)
I	FACILITIES FOR THE ENGINEERS				
1.1.	Provision of Progress Photographs <i>Provision for Progres Photographs</i>	e.a.	200.00	in words :	in words :
				in figures :	in figures :
II	OTHER GENERAL REQUIREMENTS				
2.1.	Occupational Safety and Health Program <i>Safety Signages</i> <i>PPE's</i> <i>Medicine Kits</i>	days	180.00	in words :	in words :
				in figures :	in figures :
2.2.	Mobilization/Demobilization	l.s.	1.00	in words :	in words :
				in figures :	in figures :
2.3.	Project Billboard and Signboard <i>Tarpauline (4'x8')</i> <i>Good Lumber 2"x3"</i> <i>Good Lumber 3"x3"</i>	e.a.	1.00	in words :	in words :
				in figures :	in figures :
Total for this page				P	

Name and Signature of Bidder

Name of Company

III	PREPARATION WORKS					
3.1.	Demolition/Chipping/Removal Works	sq.m.	832.47	in words :	in words :	
				in figures :	in figures :	
	3.2.	Masonry Works with Reinforcements	sq.m.	225.98	in words :	in words :
					in figures :	in figures :
IV	CIVIL WORKS					
4.1.	Tileworks/Marble Works : Flooring and	sq.m.	513.63	in words :	in words :	
					in figures :	in figures :
	4.2.	Partition Works : a. Wood Cladding	sq.m.	266.73	in words :	in words :
						in figures :
	4.2.	Partition Works : b. Glass Works	sq.m.	8.39	in words :	in words :
					in figures :	in figures :
	4.2.	Partition Works : c. Phenolic Compact	sq.m.	36.15	in words :	in words :
					in figures :	in figures :
	4.3	Ceiling Works	sq.m.	585.00	in words :	in words :
					in figures :	in figures :
Total for this page					₱	
TOTAL AMOUNT					₱	

Name and Signature of Bidder

Name of Company

4.4	Wood Plastic Composite Board - Fluted Please see detailed plans and specifications: Used	sq.m.	195.85	in words :	in words :

	100cm x 25mmx 3000mm PVC Ceiling Panel 150mm x25mm x 2900mm WPC Wall Cladding 50mm x 100mm X 3.0 m Good Lumber Partition 25mm x 75mm X 3.0 m Good Lumber Partition Non-Nailers Wall Angle MDF Laminated Sheets				
				in figures :	in figures :
4.4	PLUMBING AND SANITARY <i>Please see detailed plans and specifications: Used</i> 4" PVC Pipe series 600 3" PVC Pipe series 600 2" PVC Pipe series 600 4" PVC Fittings 3" PVC Fittings 2" PVC Fittings 2" G.I. Pipe Sch 40 2. G.I. Pipe Fittings Solvent Cement 1/2" dia. PN20 PPRC Pipe 1/2" x 90 PPRC Elbow	sq.m.	62.26	in words :	in words :
				in figures :	in figures :
V	ARCHITECTURAL WORKS				
5.1	Doors and Windows Note : All doors with Jamb, accessories OFFICE OF THE DEPUTY ADMINISTRATORS 100cm x 210cm Single Leaf Wooden with a. Glass Panel Door set 2.00 ODA Deputy Administrator 100cm x 210cm Single Leaf Panel Wooden b. Door set 2.00 ODA Deputy Administrator/Hallway 100cm x 210cm Wooden Flush Door c. - ODA Meeting room set 1.00 ECOLOGY CENTER 80cm x 210cm Swing Type Wooden Flush Door set 1.00 d. - Pantry Room 100cm x 210cm Single Leaf Panel Wooden e. Door set 1.00 - Meeting Room 180cm x 210cm Double Leaf Acting Door with Vision Panel/Wooden Solid Door set 1.00 - Laboratory Room 190cm x 210cm Double Leaf Panel g. Wooden Door set 2.00 - Ecology Office and Lobby laboratory ASD/FD/COMMON CR/ FD/OAD cr 100cm x 210cm Single Leaf Wooden with Glass Panel Door set 1.00 h. - ASD Manager 80cm x 210cm Wooden Flush Door - Comouflage set 1.00 i. - Asset Management Division and Finance 100cm x 210cm Wooden Flush Door set 2.00 - Common Rest Room (Male, and Female) 100cm x 210cm Wooden Flush Door with k. Louver and Metal set 1.00 - Common Rest Room (PWD) 80cm x 210cm Wooden Flush Door set 1.00 l. - Common Rest Room (both)	set	16.00	in words :	in words :
				in figures :	in figures :
5.2	Painting Works	sq.m.	675.50	in words :	in words :

[illegible]

	2"x3"x12' Good Lumber				
	2"x4"x12' Good Lumber				
	3/4" x 4'x8' Plyboard				
	1"x1x12' Good Lumber with Groove kd				
	2"x8"x12' Good Lumber with Groove kd				
	Cabinet Wood Panel with Glass				
	CWN Assorted				
	Finishing Nails				
	1/2"x4"x8" MDF Sheets				
	2"x2"x2mm Thk. Tubular				
	Hardwares (wood glue, hinges, lock and keys, rod hanger, screws, handle and roller)				
				in figures :	in figures :
9.0	RESTORATION WORKS	lot	1.00	in words :	in words :
	Please see scope and plans				
	Restoration and Replacement Materials				
	Cement, Sand, 1"x8" base/upper Board, 1/2"				
				in figures :	in figures :
<i>Total for this page</i>					P
TOTAL AMOUNT					P

Name and Signature of Bidder

Name of Company

ANNEX A: Improvement of Administrative Offices (as of Nov. 22, 2023)

Item 7: Provision of Voice and Data Requirements

Minimum Required Key Personnel for Voice and Data:

- One (1) Electronics and Communications Engineer (w/ 5 years general experience & 5 years relevant experience)
- One (1) Skilled Laborer (w/ 5 years general experience & 3 years relevant experience)

Item No.	PARTICULARS	Quantity	Unit	Unit Price	Total Cost
1	UTP Cat 6 4-pairs cable Number of Pairs: 4 Total Number of Conductors: 8 AWG: 24 Stranding: Solid Conductor Material: BC - Bare Copper Insulation Material: PO - Polyolefin Outer Shield Material: Unshielded Outer Jacket Material: PVC - Polyvinyl Chloride Plenum (Y/N): N Outer Jacket Ripcord - Yes UL CM Rated Supporting frequencies of up to 250 MHz and the 10BASE-T, 100BASE-TX, 1000BASE-T, and 10GBASE-T 1000ft/305m	14	boxes		
2	4 Core multi mode Indoor FOC Cable (Heavy Duty)	200	meters		
3	12 Core single mode Outdoor FOC Cable (Heavy Duty)	850	meters		
4	Fiber Patch, Pigtail and Protector Sleeves	1	lot		
5	Multi mode SFP Module (Transceiver), up to 2KM	4	set		
6	High Quality 2 in 1 Floor Outlet Socket (1 Data and 1 Voice)	5	pcs		
7	Information Outlet (Modular Jack) with cover, Cat 6 - High Quality	94	pcs		
8	Faceplate with shutter, Simplex	60	pcs		
9	Faceplate with shutter, Duplex	15	pcs		
10	Patch Cord, 1Mtr	79	pcs		
11	Patch Cord, 2 Mtr	79	pcs		
12	Fully managed layer 2 switch 48G Ports .48 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only · 4 fixed Gigabit Ethernet SFP ports · 1 Dual-personality (RJ-45 or USB micro-B) serial console port. Memory and processor Processor: ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 3 MB dynamically allocated. Mounting Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting. Management IMC - Intelligent Management Center; Command-Line Interface (CLI); Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB); IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB. 1000 Mb latency: < 2.3 µs (LIFO 64-byte packets) 100 Mb Latency: < 7.4 µs (LIFO 64-byte packets) Throughput: Up to 77.3 million pps (64-byte packets) Switching capacity: 104 Gb/s MAC address table size: 16000 entries Voltage: 100 - 127 / 200 - 240 V ac Current: 5.8/2.9 A Idle power1: 40.1 W Maximum power rating2: 476 W PoE power: 382 W Frequency: 50/60 Hz	1	unit		

13	<p>Fully managed layer 2 switch 24G Ports</p> <p>· 24 RJ-45 autosensing 10/100/1000 PoE+ ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T, IEEE 802.3at PoE+); Media Type: Auto-MDIX; Duplex: 10BASE-T/100BASE-TX: half or full; 1000BASE-T: full only · 4 fixed Gigabit Ethernet SFP ports · 1 dual-personality (RJ-45 or USB micro-B) serial console port.</p> <p>Memory and processor Processor: ARM9E @ 800 MHz, 128 MB flash, 256 MB DDR3 DIMM; packet buffer size: 1.5 MB dynamically allocated.</p> <p>Mounting Mounts in an EIA-standard 19-inch telco rack or equipment cabinet (rack-mounting kit available); horizontal surface mounting; wall mounting.</p> <p>Management IMC - Intelligent Management Center; Command-Line Interface (CLI); Web browser; configuration menu; out-of-band management (serial RS-232C or Micro USB);IEEE 802.3 Ethernet MIB; Repeater MIB; Ethernet Interface MIB. 1000 Mb latency: < 2.3 μs (LIFO 64-byte packets) 100 Mb Latency: < 7.4 μs (LIFO 64-byte packets) Throughput: up to 41.6 million pps (64-byte packets) Switching capacity: 56 Gb/s MAC address table size: 16000 entries Voltage: 100 - 127 / 200 - 240 V ac Current: 3.2/1.6 A Idle power1: 25.2 W Maximum power rating2: 247 W PoE power: 195 W Frequency: 50/60 Hz</p>	4	unit		
14	<p>48-Port Patch Panel with Modular Jack-Cat 6 (Meets or Exceeds TIA/EIA 568-A and 568-B Standard, 110 Style Punch Down, 48 Dust Caps, 568-A/B Wiring Code, UL Listed, TAA Compliant, RoHS Compliant)</p>	1	unit		
15	<p>24-Port Patch Panel with Modular Jack-Cat 6 (Meets or Exceeds TIA/EIA 568-A and 568-B Standard, 110 Style Punch Down, 48 Dust Caps, 568-A/B Wiring Code, UL Listed, TAA Compliant, RoHS Compliant)</p>	6	unit		
16	<p>Cable Organizer (1u) compatible with standard 19" racks, with finger duct, a sliding panel, and two openings in the rear for easy cable access)</p>	12	unit		
17	<p>Wall mount Cabinet H=2 Ft (Front toughened glass door with lock,with rear and side solid metal panels, 2 FANS with cable US standard plug , with sets of screw and nut)</p>	3	unit		
18	Optical Distribution Frame of Fiber Panel and Accessories(Loaded)	8	unit		
19	Utility Box, Orange	103	pcs		
20	PVC Pipe, 3" Dia, 10 Ft	2	pcs		
21	PVC Pipe, 2" Dia, 10 Ft	65	pcs		
22	PVC Pipe, 1.5" Dia, 10 Ft	17	pcs		
23	PVC Pipe, 1" Dia, 10 Ft	91	pcs		
24	Pull-box, 6 x 6"	124	pcs		
25	<p>24-Port Fiber Optic SFP Managed Switch(Interface 24*1000Mbps SFP Slots 4* 10G SFP+ Slot, Indicator PWR, LNK/ACT, SYS, Network media 10BASE-T: UTP category 3,4,5 cable (≤100m) 100BASE-TX: UTP category 5, 5e cable (≤100m) 1000BASE-T: UTP category 5e, 5 cable (≤100m) 1000BASE-X: MMF, SMF, 10GBASE-X: MMF, SMF, MAC Address Table 16K, Auto-learning, Auto-aging, Jumbo frame 9216Bytes, Transfer Mode Store-and-forward, Packet Forward Speed 95Mpps, Packet buffer 1.5MB, Switching Capacity 128Gbps, Fan Quantity2)</p>	1	unit		
	<p>SUPPLY AND CONFIGURATION OF PABX (30 LOCALS) Note: <i>Item requirements must be compatible with AFAB existing PABX (NEC 2100)</i></p>				
26	IP7WW-4KSU-C1, Main/Expansion Chassis w/ AC Cable	1	ea		
27	IP7WW-VOIPDB-C1, VoIP GW daughter board (mount to CPU)	1	ea		
28	IP7WW-EXIFB-C1 System expansion BUS daughter board	1	ea		

29	IP7WW-008U-C1, 8 Hybrid/Analog Exten	4	ea		
30	SL2100 IP TRUNK-01 LIC, IP Trunk License	8	ea		
31	AT-40 TEL(EB), Analog Terminal Basic Model (Asia)	5	ea		
32	Digital Phone, 12 key Backlit keypad and soft keys Adjustable angle Programmable keys with LEDs 4 feature keys and navigation keys Headset port Full Duplex Speakerphone 20 number personal directory 1000 number system/group directory Built-in wall mount kit Dual-color call indicator lamp 8 Selectable ring tones Power saving sleep mode Standard silver designation sheet or optional charcoal one; Compatible with NEC SL 2100	10	ea		
33	IP Phone	10	ea		
34	1U 19" power distribution unit, w/ aluminum body, US (NEMA5-15P) Plug, 6 Universal outlets, w/ LED master switch	4	pcs		
35	Civil works, Hangers and Support, Miscellaneous, Consumables, accessories and roughing in materials including PVC long elbow and GI wire	1	lot		
36	Mobilization & Demobilization, Labor for Installation, Testing, Commissioning, Engineering, Asbuilt and Documentation	1	lot		
TOTAL:					

IMPROVEMENT OF ADMINISTRATIVE OFFICES

SPECIFICATIONS for Voice and Data Communication System (ODA, Finance, AMDiv, PMD and Ecology Office)

I. Three (3) Runs of 4 Core Multimode Indoor FOC backbone connectivity from Homerun (MIS 2nd Floor) to the following offices: (See attached Layout)

Office of the Deputy Administrators (2nd Floor): 1 Unit of L2 Fully Managed Switch 24 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) Duplex: 10BASE-T/100BASE-TX: half or full 1000BASE-T: full only, with 2-4 GbE SFP slot

Finance and Asset Management Division (Upper Ground Floor): 1 Unit of L2 Fully Managed Switch 48 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) Duplex: 10BASE-T/100BASE-TX: half or full 1000BASE-T: full only, with 4 GbE SFP slot; 1 Unit of L2 Fully Managed Switch 24 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) Duplex: 10BASE-T/100BASE-TX: half or full 1000BASE-T: full only, with 2-4 GbE SFP slot

Procurement Management Division (Upper Ground Floor): 1 Unit of L2 Fully Managed Switch 24 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) Duplex: 10BASE-T/100BASE-TX: half or full 1000BASE-T: full only, with 2-4 GbE SFP slot

II. One (1) Run of 12 Core Single mode Outdoor FOC backbone connectivity from Homerun (MIS 2nd Floor) to Ecology office: (See attached Layout)

Ecology Office (2nd Floor of STP Building): 1 Unit of L2 Fully Managed Switch 24 autosensing 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, IEEE 802.3ab Type 1000BASE-T) Duplex: 10BASE-T/100BASE-TX: half or full 1000BASE-T: full only, with 2-4 GbE SFP slot

Note: To utilize underground conduit of AFAB.

1.1 The works shall consider the Multimode Fiber Transceiver end to end fiber optic link termination; From L2 Managed Switches GbE SFP slot at office area to 24-Port SFP Switch at MIS Server Room.

1.2 Laying of FOC (Horizontal and vertical installation)

1.3 Installation of Optical Distribution Frame (ODF) / patch panel / SFP Fiber panel /

cabinet including patch cords / pigtails, optical fiber trays and other fiber accessories.

1.4 Splicing and termination of fiber optic cable.

1.5 Tagging and Labeling

1.6 Testing and commissioning (provisional and final acceptance) of newly installed fiber optic cable.

1.7 Loss is about 1.0 dB per km for 1350 nm sources

1.8 Each splice, figure 1.0dB Loss

2. (79) Data & (21) Voice of Cat6 UTP Runs from Data Cabinet to distribution nodes

2.1 Structured Cabling Endpoint Nodes:

a. Office of the Deputy Administrators (2nd Floor)

Data – 15 nodes

Voice – 7 nodes

- 2 Ft. Data Cabinet - Front toughened glass door with lock, with rear and side solid metal panels, 2 FANS with cable US standard plug , with sets of screw and nut (1 unit)
- 1U 19" power distribution unit, w/ aluminum body, US (NEMA5-15P) Plug, 6 Universal outlets with LED master switch (1 unit)
- 24-Port L2 Manageable Gigabit Switch (1 unit)
- ODF, End to end (2 units)
- 24-Port Patch Panel (2 units)
- Cable wire manager, 1u compatible with standard 19" racks, with finger duct, a sliding panel, and two openings in the rear for easy cable access (3 units)
- Patch cables

b. Finance and Asset Management Division (Upper Ground Floor)

Data – 47 nodes

Voice – 10 nodes

- To utilize existing 1 unit 2 Ft. Data Cabinet - Front toughened glass door with lock, with rear and side solid metal panels, 2 FANS with cable US standard plug , with sets of screw and nut

- 1U 19" power distribution unit, w/ aluminum body, US (NEMA5-15P) Plug, 6 Universal outlets with LED master switch (1 unit)
- 48-Port L2 Manageable Gigabit Switch (1 unit)
- 24-Port L2 Manageable Gigabit Switch (1 unit)
- ODF, End to end (2 units)
- 48-Port Patch Panel (1 unit)
- 24-Port Patch Panel (1 unit)
- Cable wire manager, 1u compatible with standard 19" racks, with finger duct, a sliding panel, and two openings in the rear for easy cable access (4 units)
- Patch cables

c. Procurement Management Division (Upper Ground Floor)

Data – 4 nodes

- 2 Ft. Data Cabinet - Front toughened glass door with lock, with rear and side solid metal panels, 2 FANS with cable US standard plug , with sets of screw and nut (1 unit)
- 1U 19" power distribution unit, w/ aluminum body, US (NEMA5-15P) Plug, 6 Universal outlets with LED master switch (1 unit)
- 24-Port L2 Manageable Gigabit Switch (1 unit)
- ODF, End to end (2 units)
- 24-Port Patch Panel (1 unit)
- Cable wire manager, 1u compatible with standard 19" racks, with finger duct, a sliding panel, and two openings in the rear for easy cable access (2 units)
- Patch cables

d. Ecology Office (2nd Floor of STP Building)

Data – 13 nodes

Voice – 4 nodes

- 2 Ft. Data Cabinet - Front toughened glass door with lock, with rear and side solid metal panels, 2 FANS with cable US standard plug , with sets of screw and nut (1 unit)
- 1U 19" power distribution unit, w/ aluminum body, US (NEMA5-15P) Plug, 6 Universal outlets with LED master switch (1 unit)
- 24-Port L2 Manageable Gigabit Switch (2 units)
- ODF, End to end (2 units)
- 24-Port Patch Panel (2 units)
- Cable wire manager, 1u compatible with standard 19" racks, with finger duct, a

- sliding panel, and two openings in the rear for easy cable access (3 units)
- Patch cables

2.2 Labeling of the following: (Using computerized and high quality material label)

- a.) Outlet faceplates
- b.) Backbone cables
- c.) Patch panels
- d.) ODF
- e.) IDC blocks
- f.) Horizontal cables
- g.) PABX (Chassis and cables)

2.3 Installation of conduit piping to secure Category 6 UTP cables with GI wire for cable pulling; Must use threaded hanger, clamps, pull-boxes, PVC conduits and other support accessories to ensure proper conduit support; Must use long elbow PVC in every 90 deg turn to avoid stress in FOC and UTP cables.

2.4 Laying of Category 6 UTP Cables (Horizontal and vertical installation); 7 runs of UTP Cat6 cable from homerun (MIS Server 2nd Flr) to ODA office data cabinet (2nd Flr), 10 runs of UTP CAT6 cable from homerun (MIS Server 2nd Flr) to Finance and Asset Management office data cabinet (Upper Ground Flr); 22 runs of UTP Cat6 cable from ODA office data cabinet (2nd Flr) to ODA office voice and data distribution nodes, 57 runs of UTP Cat6 cable from Finance and Asset Management office data cabinet (Upper Ground Flr) to Finance and Asset Management office voice and data distribution nodes, 4 runs of UTP Cat6 cable from PMD office data cabinet (Upper Ground Flr) to PMD office voice and data distribution nodes, 17 runs of UTP Cat6 cable from Ecology office data cabinet (2nd Flr of STP Bldg.) to Ecology office voice and data distribution nodes.

2.5 Installation of outlet faceplates (I/O cat 6 keystone jack, simplex/duplex faceplate), Utility box, PVC surface utility box, Pull-box and Floor mounted plastic moulding).

2.6 Installation of data cabinet, 24 and 48-port patch panels, cable wire managers including Cat 6 patch cords / pigtails, trays and accessories.

2.7 Termination of UTP cables (I/O and patch panels).

2.8 Testing and commissioning (provisional and final acceptance) of newly installed structured cabling.

Supply and Configuration of PABX (30 Locals)

Installation and set-up of the following PABX chassis and parts:

- Main/Expansion Chassis w/ AC Cable (1 unit)
- VoIP GW daughter board (mount to CPU) (1 unit)
- System expansion BUS daughter board (1 unit)
- 8 Hybrid/Analog Exten (4 units)
- IP Trunk License (8 Licenses)

Configuration of PABX system, cable installation, testing and commissioning.

Other Terms and Conditions

1. Supplier must coordinate with CPD-MIS with regards to details of technical specification of ICT equipment/accessories and design/layout of communication network system.
2. Supplier must conduct survey and preparation of engineering design/plan prior to installation.
3. Must provide qualified and certified network and PABX engineer and technicians.
4. Documentations, As-built of all plans and drawings (cable route, termination, splicing, etc.) required by the project.
5. The supplier must ensure that the hardware and system requirement were inspected and tested.
6. End to end FOC and UTP Cat6 test results.
7. Delivery cost shall be shouldered by the supplier.

Warranty: 1 Year on Equipment and 2 years after sales support

Note:

- Conduits at ceiling must be installed using treaded rod hanger with clamp and lock nut to ensure proper support; All conduits must have GI wire for cable pulling.
- Must use long elbow PVC in every 90 deg turn of PVC to avoid stress in FOC and UTP cables
- Provision of electrical convenience outlet (2-Gang Universal Outlet) in every voice and data node location
- Chipping works when necessary