

LED Strip 5630 14.4w/m 230V, 3500K warm white	Cove light	10 meters	
LED Recessed Panel Light (300mm x 600mm) 24W, 230V, 2400 lumens, 6500K daylight	Function hall	24 sets	
Troffer Recessed Aluminum Louver w/ mirrored reflector, 2 x 18W T8, 6500K Daylight	Offices	38 sets	
Cage Globe Lamp Post, base type white, 15W LED 230V, 6500K Daylight	Roof deck	18 sets	
LED Flood Light	As specified	1 set	
Omni Twin Head Automatic Emergency Light, 2 x 1W LED, 230V, 6500K Daylight	As specified in plan	49 sets	
Omni LED Exit Sign w/ battery backup, single face wall mounted, 3W, 230V	Exits	7 sets	

XXVII.E Distribution Transformer and Metering

- Provision, hauling, testing and installation of three-units brand new 50KVA, 13.2kV / 7.6kV / 240V single phase, 60Hz, pole-mounted, double bushing, oil-immersed self-cooled distribution transformer c/w accessories (such as but not limited to, wire termination kits, mounting support).
- Provision and installation of three (3) 15kV Class 100 fuse cut-out and arrester combination
- Provision and installation of primary metering equipment (including wirings and accessories):
 - Three (3) Current transformer, primary, 15kV 100/50:5 outdoor type
 - Three (3) Potential transformer, primary, 15kV 70:1 outdoor type

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- One (1) three phase 240V Electronic Kilowatt-hour meter c/w seal and NEMA 3R enclosure.
- d. All instrument transformers, distribution transformers and metering equipment shall be tested at FICELCO prior to installation.
- e. The contractor shall furnish a copy of certificates and specification / data sheet obtained from the manufacturer / distributor.

XXVII.F Grounding System

- a. Provision and installation of grounding system.
- b. The grounding electrode shall be Copper bonded steel rod 20mmØ x 3m. The ground rod shall be flushed underground with a vertical orientation. Use clamp suitable for direct burial.
- c. Ground resistance shall not exceed 25ohms. A single ground rod that does not have a resistance to ground of 25 ohms or less shall be augmented by one additional rod. Where multiple rods are installed to meet the requirements of the code (PEC), they shall not be less than 1.8m apart.
- d. Non-current-carrying conductive materials enclosing electrical conductors or equipment, or forming part of such equipment shall be grounded.
- e. Grounding conductors and bonding jumpers shall be connected by listed pressure connectors or listed clamps. Connection devices or fittings that depend solely on solder shall not be used. Sheet metal screws shall not be used to connect grounding conductors or connection devices to enclosures.
- f. Ground clamps or other fittings shall be protected from physical damage.

XXVII.G Fire Detection and Alarm System (FDAS)

- a. Fire Detection & Alarm System installation shall be in compliance with the Fire Code of the Philippines 2019 Edition. All installations shall be supervised by persons who are qualified and experienced in the installation, inspection and testing of fire alarm systems.
- b. The contractor shall verify site conditions and dimensions prior to ordering of equipment or performing work to avoid conflicts and ensure the compatibility of all equipment before installation. All materials & equipment shall be installed as per manufacturer's specifications and instructions.
- c. All components, parts and assemblies supplied by the manufacturer and installed by the contractor shall be warranted against defects in material and workmanship for a period of at least 12 months (parts and labor), commencing upon date of acceptance by the university. A qualified factory-trained service representative shall provide warranty service.
- d. This scope includes provision and installation of Fire Detection and Alarm devices, including conduits and wirings.
 - One (1) set Conventional Fire Alarm Control Panel 4 zones w/ battery backup
 - Forty-six (46) sets Conventional Smoke detector
 - Two (2) sets Conventional Heat detector
 - Six (6) sets Conventional Manual call point
 - Six (6) sets 8" Fire alarm bell
- e. Smoke detectors shall not be installed until after construction is completed and the subject area has been cleaned.
- f. All devices shall be hard wired. Use Fire Alarm cable #16AWG (2conductor) @20mmØ uPVC.
- g. All wires shall be continuous all throughout the circuit.
- h. Operational testing in coordination with PMC: Upon completion of installation, the contractor shall perform thorough operational testing and verify that all system components are fully operational.

XXVIII. Auxiliary Works

- a. Provision and installation of conduits, boxes, fittings, wires and cables for network and CCTV surveillance system.
- b. Provision and installation of one (1) set Main Distribution Frame (MDF) with components:
 - 1 x 9U Server rack cabinet wall mountable w/ lockable tempered glass door, cable entries from top and bottom c/w exhaust w/ Power Distribution Unit (PDU)
- c. Provision and installation of one (1) set Intermediate Distribution Frame (IDF) with components:
 - 1 x 6U Server rack cabinet wall mountable w/ lockable tempered glass door, cable entries from top and bottom c/w exhaust w/ Power Distribution Unit (PDU)
- d. For cabling, use Belden Cat6 UTP 4-pairs cable, 24AWG.
- e. All LAN outlets shall be covered with blank plate.
- f. All CCTV and Wireless Access Point boxes shall be covered.
- g. All cables shall be concealed from view where applicable.
- h. Provide cable tray and/or cable trunking if necessary, to facilitate wire management. Cable trunking shall be concealed from view where applicable.
- i. Provide NEMA 3R pull box for fiber optic service entrance.

- j. Provision and installation of conduits, cables and boxes for CATV.
- k. Use RG6 coaxial cable @20mmØ uPVC.
- l. CATV outlets shall be covered with blank plate.

PART IV – OTHER SPECIALTY WORKS

XXIX. Supply and Delivery of Roll-up Blinds

1. All Roller Blinds to be provided shall be **brand new**.
2. Provide items as per specification provided as follows:
 - 4 sets – Located in **FW1** (Ground Floor) – **2600mmW x 2100mmH**

XXX. Supply, Delivery, & Installation: Reflective Mirrors

- Ground Floor Level
 - Director's Powder Room (0.75mW x 0.90mH), Function Hall's Powder Room (0.75mW x 0.90mH), Common Men's CR (0.75mW x 0.90mH), PWD CR (0.75mW x 0.90mH), Common Women's CR (2.225mW x 0.90mH)
- Second Floor Level
 - Common Women's CR (1.65mW x 0.90mH), Common Men's CR (0.75mW x 0.90mH), CRs: Room203 (0.75mW x 0.90mH), Room 204 (0.75mW x 0.90mH), Room 206 (1.50mW x 0.90mH), Room 201 (0.75mW x 0.90mH), Room 202 (0.75mW x 0.90mH), Room 205 (1.50mW x 0.90mH)

NOTE: Verify size and location in actual site condition prior installation

XXXI. Supply, Delivery, & Installation: Phenolic Toilet Partition System

This Item shall consist of furnishing all phenolic toilet doors and partition materials, labor, tools and equipment required in undertaking the toilet doors & partitions system as shown on the plans and in accordance with this specification.

1. For all assembly and fabrication works the cut ends shall be true and accurately jointed, free of burrs and rough edges. Cut-out recesses, mortising, grinding operation for hardware shall be accurately made and properly reinforced when necessary.
2. Upon delivery, phenolic boards and accessories shall be stored on a flat and stable surface to avoid cambers upon installation.
3. Provide and install 12mm thk. 5ft x 6ft – Neuform Compact Laminate Phenolic Panel Board with the specified color Peruvian Mahogany NWD 1229 for toilet partition.
4. Provide stainless steel partition profile and accessories such as Top rail, h-profile, U profile and corner profile.
5. Provide partition accessories for such as adjustable foot and other accessories for every cubicle. See phenolic comfort room cubicles isometric details. All accessories shall be made of Stainless Steel.
6. Use proper profile fittings on all corners and edges of the partition system.
7. Use appropriate cutting equipment. Clearances in fitting phenolic boards shall be avoided.
8. Any improper work shall be reconstructed by the Contractor.
9. Use phenolic door with specify color of Peruvian Mahogany NWD 1229. Phenolic Frame with complete accessories; Stainless Hinge, Stainless Coat Hook, Stainless Indicator Handle and locking accessories.
10. The Contractor shall assign well-versed personnel in the installation procedure of the phenolic toilet doors & partition system.

XXXII. Supply, Delivery, & Installation: Accordion Wall System

This Item shall consist provision of operable/accordion wall at function hall area. Materials, labor tools, and equipment required in undertaking the proper installation as shown on the plans in accordance with this specification listed below

- MDF board laminate finish, aluminum powder coated white frame with railings and movable hanger, manually operated

GENERAL NOTES

1. The Contractor shall provide all labor, material tools, equipment, supervision, and other related items required to complete the project as per the scope of works and specifications. Contractors are advised to visit the site, verify the existing site conditions to develop their proposal.
2. Site inspection shall be conducted by the PMC and TPC together with a representative from the Contractor to determine the exact measurement and actual site conditions.
3. All Materials delivered on-site shall have an Approved Material Inspection Report from the Project Monitoring Committee.
4. The whole project shall be completed within 225 calendar days.
5. An area to be used as storage for construction materials will be designated by the IU.
6. Water and electricity to be used during the construction will be charged to the Contractor.
7. Workers shall follow IU rules and regulations like wearing of ID's, No Smoking, etc.
8. Workers will be allowed to use a specified comfort room.
9. The Contractor shall coordinate with the TPC with regards to documents required for building permit applications.
10. If the Contractor determines that some portion of the drawing, specification, or contract document requires clarification or interpretation by the agency, the Contractor shall initiate and submit formally a written Request for Information (RFI).
11. In case there is a variation, a letter of justification with full and detailed particulars to support claims for change order shall be provided by the Contractor to the recommending unit to the PMC and TPC for evaluation and recommendation before its implementation.
12. In case of changes in the plans, additional works shall be charged to the Overhead, Contingencies, & Miscellaneous (OCM) of the project per Contractor's original bid and incur no additional cost to the project if the computed cost is within the OCM since OCM's are included in the project estimate to cover any unforeseen expenses and unknown issues during construction.
13. Shop drawings shall be submitted by the Contractor to the PMC for approval before implementation specifically structural details installation and fabrication.
14. The Contractor shall notify the PMC during every material delivery for inspection. Relatively, a Material Inspection Report shall be submitted by the Contractor to the PMC.
15. Reinforcing Steel Bars shall bear company markings, with the attached mill certificate for yield strength verification.
16. The Contractor shall furnish copies of the results of the testing of materials (for concrete design mix and RSB) to the TPC and PMC for approval and proper documentation before the concrete pouring request.
17. A concrete design mix shall be submitted by the Contractor to the TPC and PMC for approval before the concrete pouring request.
18. The Contractor shall provide a rebar cutting list for TPC approval before fabrication/ installation.
19. An approved form closure requests with an affixed signature of the implementing unit (PMC) must be submitted by the Contractor at least a day before the closure of forms in preparation for concrete pouring.
20. An approved concrete pouring requests with an affixed signature of the implementing unit (PMC) must be submitted by the Contractor at least a day before concrete pouring.
21. Proper plumbness of Column Reinforcement assemblies and Column forms shall be observed before closure of forms and concrete pouring
22. All lumber shall conform with the specifications required by the IU.
23. All Electrical works shall be done under the supervision of a Professional Electrical Engineer, Registered Electrical Engineer, or Registered Master Electrician.
24. All Plumbing works shall be done under the supervision of a Registered Master Plumber.

25. The Contractor shall verify the design and specifications of any furniture, fixtures, and the likes, as well as the equipment and appliances before procurement.
26. Removed/recovered materials that can be utilized should be turned over to IU.
27. If the Contractor does not have an employed certified installer, he shall submit to the Agency thru PMC an agreement with the supplier and its certified installer which will deliver and/or perform special services, equipment, and other appurtenances for special items.
28. If in case the Contractor requests additional/ extra copies of plans and/or plans for building permit application, they shall pay a printing fee per sheet of A3 sized paper scheduled as follows; 10.00php for black and white and 20.00php for colored. All transactions shall be paid through the cashiering services.
29. The Contractor is required to update figures and data of actual accomplishment of the project every 15th and 30th of the month. This information together with other supporting documents (i.e. equipment and workforce, utilization chart, weather chart, PERT/CPM, etc.) shall be made available and posted at the field office.

Prepared by:

Finishing and Other Civil Works


Engr. KAREN JOI P. BEO
Administrative Assistant VI


Engr. HOWARD JOWEN T. MAGCALAYO
Engineer I


Ar. MAE LIZZA D. BUBLO
Architect I

Structural Works


Engr. MARLO G. PANTI
Engineer I


Engr. SAMUEL JEZRA MENDOZA
Engineer I


Engr. CLARK RICHARD UCHI
Engineer II

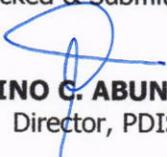
Plumbing & Sanitary Works


Engr. NORMAN Z. MATIENZO
Engineer I

Electrical & Auxiliary Works


Engr. MARVIN RAY R. VARGAS
Engineer I

Checked & Submitted by:


BERNARDINO C. ABUNDO JR., Ph.D.
Director, PDISS