



# MARIANO MARCOS STATE UNIVERSITY

## Bids and Awards Committee

### INVITATION TO MAKE AN OFFER: Negotiated Procurement

2022-012-1

**THE PROJECT:** Refurbishment of SIRMATA Office, Student Center  
**Project Location:** MMSU Student Center, City of Batac, I.N.  
**Number of Working Days:** 30 calendar days  
**ABC: P481,021.44**

1. The Mariano Marcos State University (MMSU), with offices at Quiling Sur, City of Batac, Ilocos Norte, invites the public to make an offer to furnish all labor, materials, tools and equipment necessary and proper for the implementation of the above Project as per approved designs, plans and drawings.
2. This process is in accordance with Section 53 of R.A. 9184, the Government Procurement reform Act and Section 53.9 of the Implementing Rules and Regulations where interested and qualified contractors are to submit proposals.
4. The offer must be in writing submitted at the address below not later than 5 days together with the following documents:
  - a) The amount of the offer in writing duly signed by the person making the offer, indicated in numbers and figures.
  - b) The particulars of the offer as to labor, materials, tools, equipment and other work details.
  - c) Documents in support of the legal, technical and financial capability of the person making the offer, which documents shall be confirmed and verified (3 copies).
5. It is understood that any offer may be accepted or rejected, or the process invalidated, at any time prior to contract award, without liability to anyone.
6. Documents for this procurement may be secured from the MMSU BAC Secretariat at the address below or downloaded from the MMSU website or from the Philippine Government Electronic Procurement System (PhilGEPs) website.
7. For questions and inquiries, please write or email the University President, thru the BAC Chair, at the address indicated below.

**Mariano Marcos State University**  
Quiling Sur, City of Batac  
[www.mmsu.edu.ph](http://www.mmsu.edu.ph)

June 14, 2022.

**NATHANIEL R. ALBUYOG**  
BAC Chair

Received: \_\_\_\_\_

Received: \_\_\_\_\_

## PROJECT INFORMATION DOCUMENT

**Project Title** : Refurbishment of SIRMATA Office, Student Center  
**Project Location** : MMSU Student Center, City of Batac, Ilocos Norte

### GENERAL INSTRUCTIONS

The project calls for the furnishing of all materials, labor, tools and equipment needed for the refurbishment of SIRMATA Office. The said project shall be done in strict conformity with the designs, plans, drawings and other details, as well as the specifications, this Project Information Document and other related contract documents prepared and approved for this project. It is highly recommended that the contractor conduct site inspection for them to have an idea on the existing condition of the site.

It also calls for the employment of manpower with the appropriate skills and expertise to undertake the specific items of work and to enable the contractor to produce and deliver to the satisfaction of the owner the needed services and output required of this undertaking. The contractor shall provide competent project in charge (architect, civil engineer, electrical engineer and mechanical engineer) and shall have adequate and readily available construction equipment to be utilized during the construction activities.

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The contractor shall ensure that the construction activities must not interfere, obstruct and disturb any on-going operation of the building and other facilities; hence, the contractor shall isolate the working area from the other portions of the building. In addition, the contractor shall be required to provide its own water and power supply system needed in the proper execution of the various works for the duration of the contract.

**I. COUNTER TOP WORKS** - This scope of works includes fabrication and installation of preparation counter with cabinet with materials as indicated in the approved plans of the project. The Contractor shall strictly conforms to the plans and specifications of the project. Contractor shall submit samples of each materials included in the specifications for the approval of the end-user.

### **II. ELECTRICAL WORKS**

- a. Works shall be done by a duly accredited electrician (NC II) under the direct supervision of a licensed electrical practitioner, PEE/REE/RME.
- b. The contractor shall provide 1 (one) licensed electrical practitioner PEE/REE/RME on the job site as a resident project supervisor for the electrical works. *No installation shall be done without the presence of the project supervisor.*
- c. Before starting any works, the Contractor must provide its metering equipment (KWHr Meter) for the power consumption throughout the project construction. The power consumption shall be paid by the contractor to the university after all works are furnished. The provision shall be limited to equipment for drilling and cutting only but not including welding machines. Welding works shall be done outside the project site premises or other power supply shall be used by the contractor, whichever is more convenient
- d. Sample of each fixture, wires, wiring devices, circuit breaker panels shall be submitted for approval by the technical committee or inspection committee of the University prior to their installation. *No installation shall be made without the approval of materials by the technical committee of the University.*

## PROJECT INFORMATION DOCUMENT

**Project Title : Refurbishment of SIRMATA Office, Student Center**

**Project Location : MMSU Student Center, City of Batac, Ilocos Norte**

- e. Pipes for the additional convenience outlets must be embedded and finished in a workmanship manner and the affected part to be painted with the same as the existing.
- f. Airconditioning units must be tapped to the existing circuit breakers provided for indicated in the Electrical Plans.
- g. All wires shall be copper 99%, plastic insulated for 600V type THHN, lead free, stranded, except for the feeder lines, transformer wirings, ecb wirings, THW must be used or approved brand by the technical committee of the University. **ONLY ONE (1) BRAND OF WIRE SHALL BE USED.**
- h. Conduit/cable tray shall be supported for permanent connection following the latest PEC and/or refer the approved plans.
- i. No termination of wires shall be done inside the conduits.
- j. Color coding of wires shall be observed following the latest PEC: Line A (red), Line B (yellow), Line C (blue), and Ground (green).
- k. All switches and convenience outlets shall be the wide series type and shall be rated in 15 amperes respectively. Convenience outlet shall be in 3 wire grounding type.
- l. The mounting heights of wiring devices shall be as follows:
  - Convenience outlets – 0.30 m above finished floor line or as required
  - A/C outlet, outlets for motors – not less than 0.40 m above fn. Floor line or as required
- m. Grounding system - All exposed non-current-carrying metallic parts of electrical equipment, metallic raceway system, grounding conductor and neutral conductor or wiring system shall be grounded. The ground connection shall be made at the main service equipment and shall be made to the driven rods on the exterior of the building.
- n. Existing electrical system shall remain functional and normal operation until the new electrical system is ready to be energized.
- o. All wirings shall be tested for circuit continuity and shall be tested to assure that the wiring system is free of short-circuit, accidental grounding or other defects prior to normal system operation.
- p. Tests shall be performed after all wiring is completed and connected ready for the attachment of the fixtures and equipment and again after fixture and equipment are connected ready for use. Tests shall be made with an instrument capable of measuring accurately the resistance involved and having a voltage rating of 500 volts. Reading shall be taken after the voltage has been applied continuously for one minute. The insulation resistance between the conductors and between each conductor and ground shall be measured.
- q. Tests shall be done for each item of control equipment will function not less than five times. All tests shall be performed in the presence of the university inspection or technical committee. All test results shall be submitted in three copies.

## **PROJECT INFORMATION DOCUMENT**

**Project Title : Refurbishment of SIRMATA Office, Student Center**  
**Project Location : MMSU Student Center, City of Batac, Ilocos Norte**

- r. Energize the system. After the contractor has assured himself that the wiring systems are free of faults, the contractor shall energize the system from their normal power source and confirm that the system is operational as required by the contract documents, prior to final inspection.
- s. In case that a conflict arises in specification and quality of materials, installation procedure and in the plans and drawings as well as in the contract documents before and during the implementation stage, the same should be referred to the end-used, and PPDO for proper resolution of the said conflict.

### **III. MECHANICAL WORKS**

This include the supply and installation of Split Type Air Conditioning Unit and its appurtenances such as drain lines, refrigerant piping and supports.

#### **A. Quality and Features of Air-conditioning Unit**

1. The Air-conditioning Unit or ACU shall be a Split Type Vapor Compression Unit
2. The cooling capacity is specified in the Technical Specification Sheet
3. The ACU shall be fast cooling type with energy saving features
4. The ACU shall be equipped with Auto Cleaning and Allergy Filter
5. The ACU shall be low noise level
6. The ACU shall be constructed with a durable material with a 10 years warranty

#### **B. Quality and Features of Air-conditioning Unit**

7. Mechanical Works shall be done by a duly licensed air-conditioning specialist, supplier and technicians.
8. Installation of the Split Type ACU shall be in accordance with the mechanical plan provide by MMSU PPDO.
9. The Fan Coil Unit (FCU) or Indoor Unit shall be installed where there is no obstruction of air flow of at least 300mm at both sides.
10. The Air-Cooled Condensing Unit (ACCU) or Outdoor Unit shall be at least 500mm above the ground.
11. The ACCU shall be properly ventilated and installed with a clearance of at least 300mm from the wall.
12. The refrigerant piping shall be copper material, properly installed with 1" thick insulation and a white film vapor barrier.
13. Provide pipe sleeves for all piping penetrating wall. The penetrating wall shall be sealed with fire retardant material after installation of refrigerant piping

**PROJECT INFORMATION DOCUMENT**

**Project Title : Refurbishment of SIRMATA Office, Student Center**  
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14. Condensate drain line shall be 3/4" Polyvinyl Chloride (PVC) pipe shall be directly routed toward outside the building for proper disposal of condensate and to avoid flooding inside the building.

**IV. MODULAR PARTITION AND FURNITURE**

This include the supply and installation modular partition and furniture. The Contractor shall strictly conforms to the plans and specifications of the project. Contractor shall submit samples of each materials included in the specifications for the approval of the end-user.

**Supplementary Provisions**

All other items or scope of works not mentioned in this document but show/or indicated in the plans, drawings and specifications, except where it is specifically mentioned as "to be provided by others" the contractor shall likewise furnish all materials, labor and equipment necessary to complete the work.

In case of conflicts that will arise among the specifications and quality of materials, installation procedure and in the plans and drawings as well as in the other contract documents before and during the implementation stage, the same should be referred to the end-user and PPDO Project-in-Charge in proper resolution of the said conflicts.

After all the works have been completed, the surrounding immediate areas affected in the prosecution of the project shall be cleaned and cleared of all excess materials and debris, temporary structures, facilities and utilities used during the construction period.

A. Time is a very important factor in the implementation of this project and as such, all works indicated in the plans, specifications and in this document shall be fully completed within **30 calendar days** from receipt of the Notice to Proceed.

B. Before final acceptance by the end-user, the Contractor shall post a warranty security in accordance with the following schedule as prescribe in Section 62.2.3.3 of RA 9184

Form of Warranty Security	Amount of Warranty Security (Equal to percentage of the Total Contract Price)
a) Cash or Letter of Credit issued by a Universal or Commercial Bank: Provided, however, that the LC shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.	Five percent (5%)
b) Bank guarantee confirmed by a Universal or Commercial Bank.	Ten percent (10%)
c) Surety bond callable upon demand issue by GSIS or a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.	Thirty percent (30%)

## PROJECT INFORMATION DOCUMENT

**Project Title : Refurbishment of SIRMATA Office, Student Center**  
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to cover warranty against structural defects to cover the following periods as follows in accordance with Section 62.2.3.2

- C. Permanent Structures (15 years)
- D. Semi-Permanent Structures (5 years)
- E. Other Structures (2 years)

C. The Approved Budget for the Project to be bid is **Four Hundred Eighty One Thousand Twenty One and 44/100 Only (Php. 481,021.44)**

Prepared by:

**JEREMIAH ROGER P. CALUYA**  
Civil Engineer

**LEMUEL JOSHUA P. BAGAYAS**  
Registered Electrical Engineer

**DENNIS CLYDE G. ACANTILADO**  
Mechanical Engineer

Checked by:

  
**AIDA V. CABANG**  
Chief, Physical Planning Section

Noted by:

  
**ROMEO B. ROSDILAO**  
Director, PPDO

Republic of the Philippines  
MARIANO MARCOS STATE UNIVERSITY  
PHYSICAL PLANNING AND DEVELOPMENT OFFICE  
City of Batac, 2906, Ilocos Norte

**Refurbishment of SIRMATA Office, Student Center**  
(MMSU Batac Campus, City of Batac, Ilocos Norte)

From: PPOD  
4-23  
15790

BILL OF QUANTITIES			
Item No.	Description	Quantity	Unit
<b>PART A</b>			
	<b>COUNTER TOP WORKS</b>	1.00	lot
	20mm Thick Granite Slab	0.96	sq.m.
	Granite Adhesive	1.00	set
	¾" Laminated Plywood	2.00	pcs
	1"x2"x10' Good Lumber	4.00	pcs
	2"x3"x8' Good Lumber	2.00	pcs
	Concealed Hinges	8.00	pcs
	Aluminum Cabinet Door Handle	4.00	pcs
	1" Finishing Nail	0.50	kgs
	1 1/2" Finishing Nail	0.50	kgs
	Wood Glue	1.00	liter
	Clear Wood Preservative with Paint Brush	1.00	liter
<b>PART B</b>			
	<b>ELECTRICAL WORKS</b>	1.00	lot
	Adapter with Locknut/Straight Connector 20mmØ, PVC	10.00	pcs.
	Pipe, Thick wall, 20mmØ, PVC, 2.2mm thick	6.00	pcs.
	Conductors, Lead Free, 3.5 mm <sup>2</sup> THHN	28.00	meters
	Conductors, Lead Free, 2.0 mm <sup>2</sup> THHN	14.00	meters
	Utility Box, 2"x4"	5.00	pcs.
	Duplex Convenience Outlet with Cover Plate, Grounding Type, Wide Series	5.00	sets
<b>PART C</b>			
	<b>MECHANICAL</b>	1.00	lot
	<b>Airconditioning Works</b>		
	Split Type Wall Mounted Air Converter - Super Inverter Cooling Capacity = 19,738 Btu/hr / 20,820 kJ/hr or higher, complete with all accessories and mounting (see plan details), including ¾" PVC pipe with pvc elbow for condensate drain line, caulking sealant for wall penetration (Supply, Installation, and Delivery) with ff. features: Air Filter PM 1.0, Plasmaguard, Plasmater, NANOeX	2.00	sets
<b>PART D</b>			
	<b>MODULAR PARTITION AND FURNITURE</b>	1.00	lot
	<b>STAFF/HEAD PANEL PARTITION</b>		
	Laminate with stripes "frosted" glass panel partition 6cm thick; powder coated metal trims and strips in beige color Dimension: 90Wx180H cm 70Wx180H cm 70Wx150H cm 70Wx150H cm	7.00 1.00 8.00 3.00	sets sets sets sets
	Door with complete accessories 100W x 180H cm	1.00	sets
	<b>STAFF/HEAD PANEL PARTITION</b>		
	2D Post 180H Powder Coated Metal Post Beige Color	1.00	sets
	End Post 180H Powder Coated Metal Post Beige Color	3.00	sets
	M/d Post 180H Powder Coated Metal Post Beige Color	6.00	sets
	2D Post 150H Powder Coated Metal Post Beige Color	3.00	sets
	End Post 150H Powder Coated Metal Post Beige Color	8.00	sets
	M/d Post 150H Powder Coated Metal Post Beige Color	4.00	sets
	Worktop Table - Woodgrain laminated top 25mm thick with flat edging; with powder coated metal bracket Dimension: 140Wx60D cm (main table) 90Wx45D cm (side table)	3.00 3.00	sets sets
	Mobile Pedestal with 3 drawers in powder coated metal body gauge 20; beige color	3.00	sets
	Midback chair with armrest and gaslift height adjustment with tilt mechanism; black starbase; fabric or leatherette upholstery	3.00	sets

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MARIANO MARCOS STATE UNIVERSITY  
PHYSICAL PLANNING AND DEVELOPMENT OFFICE  
City of Batang, 2906, Ilocos Norte

**Refurbishment of SIRMATA Office, Student Center**  
MMSU Batang Campus, City of Batang, Ilocos Norte

SPECIFICATIONS	
Building Part / Material	Specifications
<b>ARCHITECTURAL</b>	
Preparation Counter	(show sample of material for approval by the end-user)
Counter Top	20mm thick granite slab
Cabinet	¾" Laminated Plywood
<b>ELECTRICAL</b>	
Pipes, Conduits, and Fittings	It must meet the standard thickness and diameter
Conductors, Lead Free	It must be UL listed brands, lead free, and at least 99% made from copper wire
<b>MECHANICAL</b>	
Air conditioning	Split Type Wall Mounted Air Converter – Super Inverter Cooling Capacity = 19,738 Btu/hr / 20,820 kJ/hr or higher, complete with all accessories and mounting (see plan details), including ¾" PVC pipe with pvc elbow for condensate drain line, caulking sealant for wall penetration (Supply, Installation, and Delivery) with ff. features: Air Filter PM 1.0, Plasmaguard, Plasmater, NANOeX
<b>MODULAR PARTITION AND FURNITURE</b>	
Staff/Head Panel Partition	Laminate with stripes "frosted" glass panel partition 6cm thick; powder coated metal trims and strips in beige color Dimension: 90Wx180H cm 70Wx180H cm 70Wx150H cm 70Wx150H cm Door with complete accessories 100W x 180H cm
Partition Panel Accessories	2D Post 180H Powder Coated Metal Post Beige Color End Post 180H Powder Coated Metal Post Beige Color Mid Post 180H Powder Coated Metal Post Beige Color 2D Post 150H Powder Coated Metal Post Beige Color End Post 150H Powder Coated Metal Post Beige Color Mid Post 150H Powder Coated Metal Post Beige Color
Furniture	Worktop Table – Woodgrain laminated top 25mm thick with flat edging; with powder coated metal bracket Dimension: 140Wx60D cm (main table) 90Wx45D cm (side table) Mobile Pedestal with 3 drawers in powder coated metal body gauge 20; beige color Midback chair with armrest and gaslift height adjustment with tilt mechanism; black starbase; fabric or leatherette upholstery



Republic of the Philippines  
**MARIANO MARCOS STATE UNIVERSITY**  
 City of Batang, 2906, Ilocos Norte

**DETAILED ESTIMATES**

Item No.: 1	Quantity:	1.00
Description: Counter Top Works	Unit:	lot

MATERIALS COST	Quantity	Unit	Unit Price	Sub-Total
<b>PREPARATION COUNTER</b>				
20mm Thick Granite Slab		sq.m.		-
Granite Adhesive		set		-
3/4" Laminated Plywood		pcs		-
1"x2"x10' Good Lumber		pcs		-
2"x3"x8' Good Lumber		pcs		-
Concealed Hinges		pcs		-
Aluminum Cabinet Door Handle		pcs		-
1" Finishing nail		kgs		-
1 1/2" Finishing Nail		kgs		-
Wood Glue		liter		-
Clear Wood Preservative with Paint Brush		liter		-
<b>Total Materials Cost</b>			<b>Sub-Total</b>	-
			<b>Unit Cost</b>	-
<b>EQUIPMENT COST</b>				
Minor Tools				
<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Sub-Total</b>
<b>Total Equipment Cost</b>			<b>Sub-Total</b>	-
			<b>Unit Cost</b>	-
<b>LABOR COST</b>				
Construction Foreman		days		
Skilled Laborer		days		
Unskilled Laborer		days		
<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Sub-Total</b>
<b>Total Labor Cost</b>			<b>Sub-Total</b>	-
			<b>Unit Cost</b>	-

DIRECT COST: -  
 DIRECT UNIT COST: -  
 Plus Indirect Cost:  
 OCM -  
 CP -  
 VAT -  
 INDIRECT COST: -  
 INDIRECT UNIT COST: -  
**Total Direct and Indirect Cost: -**

Republic of the Philippines  
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 City of Batac, 2906, Ilocos Norte

**DETAILED ESTIMATES**

Item No.: <b>II</b>	Quantity:	<b>1.00</b>
Description: <b>Electrical Works</b>	Unit:	<b>lot</b>

MATERIALS COST	Quantity	Unit	Unit Price	Sub-Total
Adapter with Locknut / Straight Connector 20mmØ, PVC		pcs.		-
Pipe, Thick Wall 20mmØ, PVC, 2.2mm thk		pcs.		-
Conductors, Lead Free, 3.5mm2 THHN		meters		-
Conductors, Lead Free, 2.0mm2 THHN		meters		-
Utility Box, 2'X 4'		pcs.		-
Duplex Convenience Outlet with Cover Plate, Grounding Type, Wide Series		sets		-
Total Materials Cost			Sub-Total	-
			Unit Cost	-
Description	Quantity	Unit	Unit Price	Sub-Total
Minor Tools				
Total Equipment Cost			Sub-Total	-
			Unit Cost	-
Description	Quantity	Unit	Unit Price	Sub-Total
PEE / REE / RME Accredited Electrician		days		-
Electrical Helper		days		-
		days		-
Total Labor Cost			Sub-Total	-
			Unit Cost	-

DIRECT COST: -  
 DIRECT UNIT COST: -  
 Plus Indirect Cost:  
     OCM -  
     CP -  
     VAT -  
 INDIRECT COST: -  
 INDIRECT UNIT COST: -

Total Direct and Indirect Cost: -

Republic of the Philippines  
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**DETAILED ESTIMATES**

Item No.:	III	Quantity:	1.00
Description:	Mechanical Works	Unit:	lot

MATERIALS COST	Quantity	Unit	Unit Price	Sub-Total
Spit Type Wall Mounted Air Converter - Super Inverter Cooling Capacity = 19,738 Btu/hr/ 20,820 KJ/hr or higher, complete with all accessories and mounting (see plan details), including 3/4" PVC pipe with pvc elbow for condensate drain line, caulking sealant for wall penetration (Supply, Installation and Delivery) with ff. features: Air Filter PM 1.0 Plasmaquad Plasmater NANOeX		set		-
Total Materials Cost			Sub-Total Unit Cost	-
Description	Quantity	Unit	Unit Price	Sub-Total
Total Equipment Cost			Sub-Total Unit Cost	-
Description	Quantity	Unit	Unit Price	Sub-Total
Total Labor Cost			Sub-Total Unit Cost	-

DIRECT COST: -  
 DIRECT UNIT COST: -

Plus Indirect Cost:  
 OCM  
 CP  
 VAT  
 INDIRECT COST: -  
 INDIRECT UNIT COST: -

Total Direct and Indirect Cost: -

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**DETAILED ESTIMATES**

ITEM NUMBER	IV	QUANTITY	UNIT	UNIT PRICE	Total Price
<b>DESCRIPTION</b>	<b>Modular Partition and Furnitures</b>				<b>1.00</b>
					<b>lot</b>
<b>STAFF/HEAD PANEL PARTITION</b>					
Laminate with stripes "frosted" glass panel partition 6 cm thk; powder coated metal trims and strips in beige color					
Dimension:	90W x 180H cm		set		-
	70W x 180H cm		set		-
	70W x 150H cm		set		-
	70W x 150H cm		set		-
Door with complete accessories 100W x 180H cm					
			set		-
<b>PARTITION PANEL ACCESSORIES</b>					
2D Post 180H Powder coated metal post beige color					
			set		-
End Post 180H Powder coated metal post beige color					
			set		-
Mid Post 180H Powder coated metal post beige color					
			set		-
2D Post 150H Powder coated metal post beige color					
			set		-
End Post 150H Powder coated metal post beige color					
			set		-
Mid Post 150H Powder coated metal post beige color					
			set		-
Worktop Table - woodgrain laminated top 25mm thick with flat edging; with powder coated metal bracket					
Dimension:	140W x 60D cm (main table)		set		-
	90W x 45D cm (side table)		set		-
Mobile Pedestal with 3 drawers in powder coated metal body gauge 20; beige color					
			set		-
Midback chair with armrest and gaslift height adjustment with tilt mechanism; black starbase; fabric or leatherette upholstery					
			set		-
Fabrication, Supply, and Delivery					
			lot		-
Total Materials Cost				Sub-Total: Unit Cost:	-
DESCRIPTION		QUANTITY	DAYS	RATE	Total Price
DESCRIPTION		QUANTITY	DAYS	RATE	Total Price
Sub-Total: Unit Cost:					-
Sub-Total: Unit Cost:					-
LABOR COST					-
LABOR COST					-
LABOR COST					-

DIRECT COST: -  
 UNIT COST: -

Plus Indirect Cost:

OCM  
 CP  
 VAT

INDIRECT COST: -  
 INDIRECT UNIT COST: -

Total Direct and Indirect Cost:

-

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PHYSICAL PLANNING AND DEVELOPMENT OFFICE  
 ROOM 202 FEM HALL, MARIANO MARCOS STATE UNIVERSITY  
 City of Balag, 2906 Ilocos Norte  
 Telephone: +63 (77) 792-3191

DAVE CARK E. PASCUA  
 DRAFTSMAN II

CHECKED AND REVIEWED BY:  
 AIDA V. CABANG  
 CHIEF, PHYSICAL PLANNING

REFURBISHMENT OF  
 SIRMATATA OFFICE,  
 STUDENT CENTER,

LOCATION: M999 STUDENT CENTER, CITY OF BALAG, I.N.

JAMICO CHRIS R. JUNGCO  
 SIMATATA OFFICE

RECOMMENDING APPROVAL:  
 ROMEO R. DULUAG  
 DIRECTOR, PPDD

APPROVED BY:  
 SHIRLEY O. PASUPIS  
 UNIVERSITY PRESIDENT

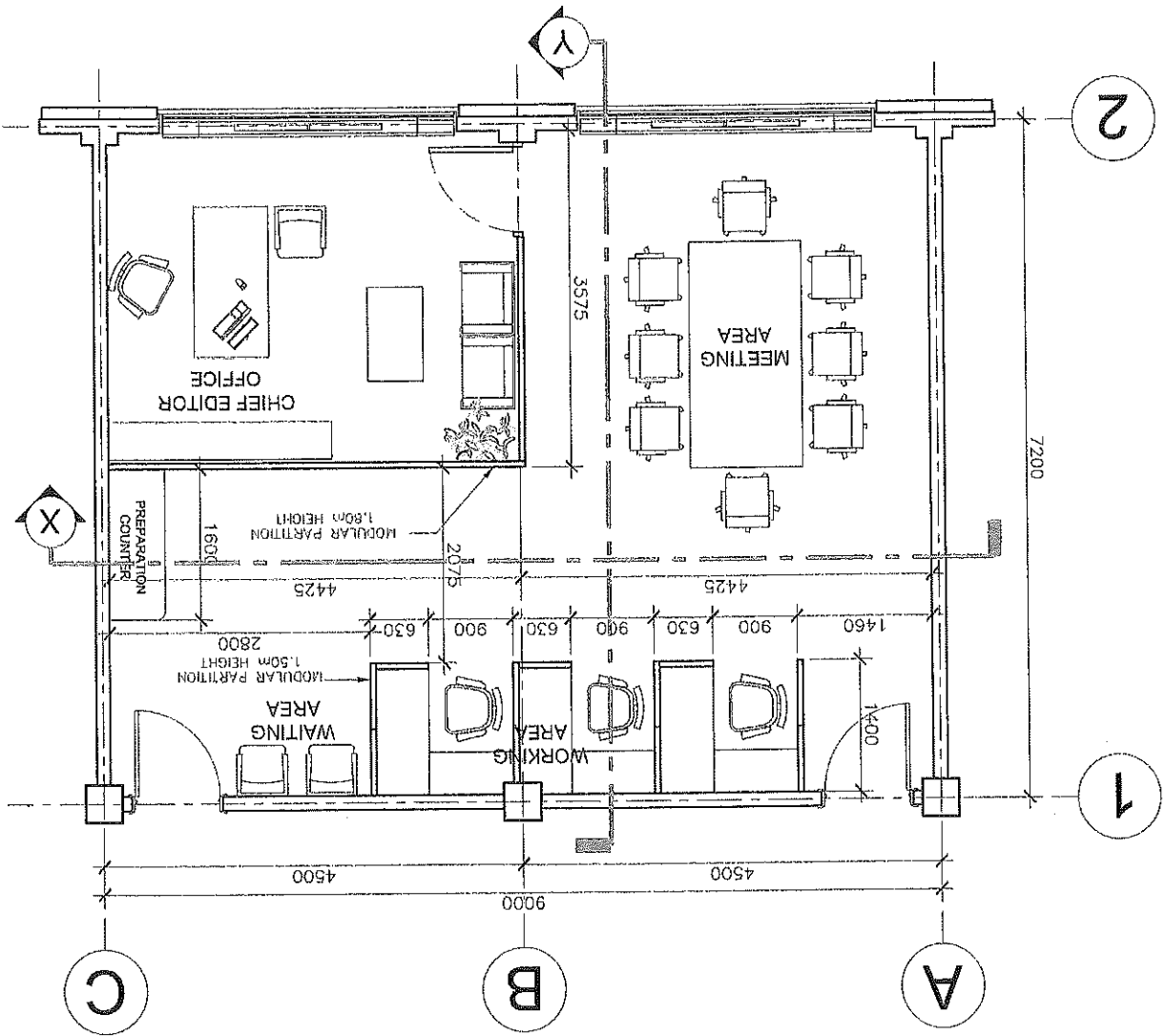
AS SHOWN

SHEET CONTENTS:

SHEET NO.:

A-1  
 1  
 6

FLOOR PLAN  
 SCALE 1:75 MTS





PHYSICAL PLANNING AND DEVELOPMENT OFFICE  
 ROOM 202 FEM HALL, MARIANO MARCOS STATE UNIVERSITY  
 City of Balaoc, 2806 Ilocos Norte  
 Telephone: +63 (77) 792-3191

DAVE CLARK E. PASCUA  
 CHARTSMAN II  
 CHECKED AND REVIEWED BY  
 AIDA V. CABANG  
 CHIEF, PHYSICAL PLANNING

REFURBISHMENT OF  
 SIRIMATA OFFICE,  
 STUDENT CENTER,  
 LOCATION: INSU STUDENT CENTER, CITY OF BALAO, I. N.

JAMCO CHRIS R. JINGCO  
 SIRIMATA EDITOR IN CHIEF  
 RECOMMENDING APPROVAL  
 ROMEO R. DUDUAYAO  
 DIRECTOR, 2806

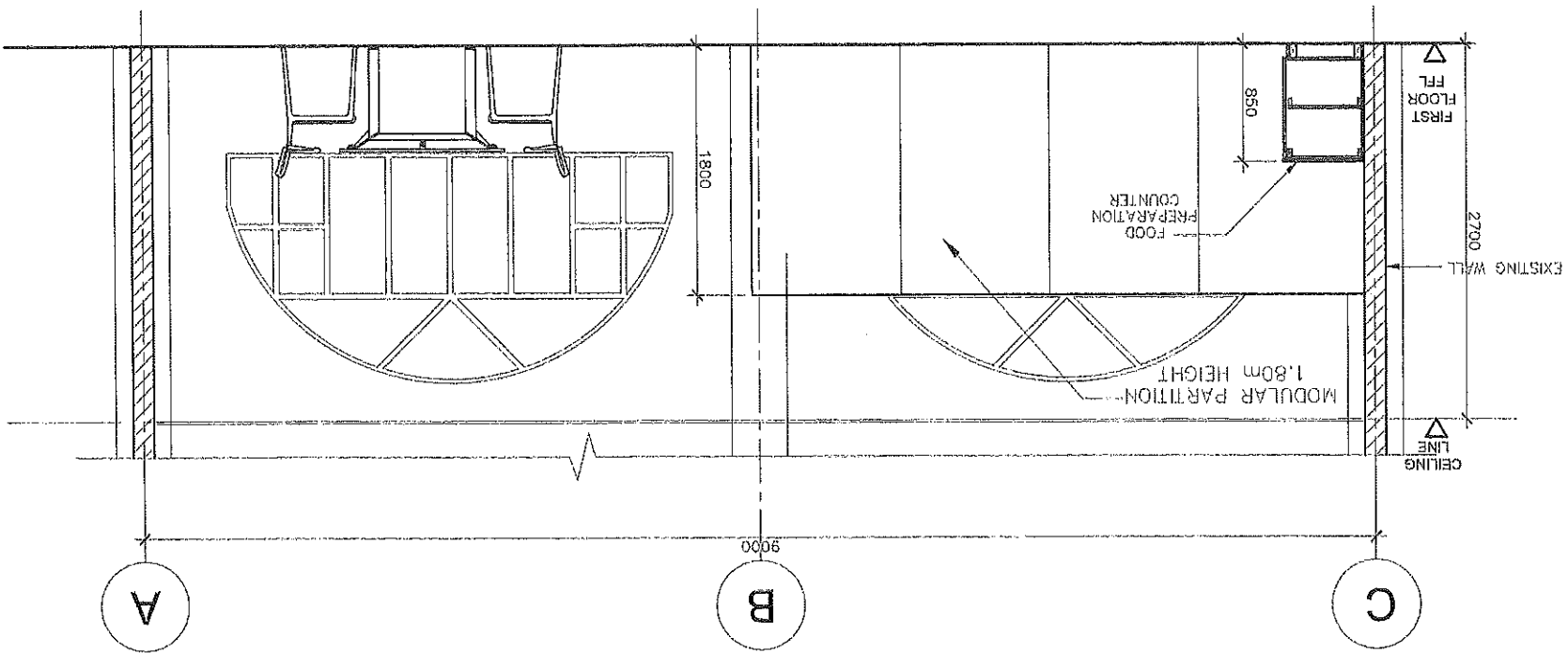
SHARLEY C. ANRUPIS  
 UNIVERSITY PRESIDENT

AS SHOWN
REVISION AND DATE:

A-2  
 2  
 6

FROM THE OFFICE: DRAWN AND PREPARED BY: PROJECT TITLE: CONFORMER: APPROVED BY: SHEET CONTENTS: SHEET NO.:

SECTION 'X'  
 SCALE 1:50 MTS





PHYSICAL PLANNING AND DEVELOPMENT OFFICE  
 ROOM 202 REM HALL, MARIANO MARCOS STATE UNIVERSITY  
 City of Batangas, 2906 (locos Norte)  
 Telephone: +63 (77) 792-3191

DRAWN AND PREPARED BY:  
 DAVE CLARK S. PASOYA  
 DRAFTER/AN/II  
 CHECKED AND REVIEWED BY:  
 AIDA V. CABRANG  
 CHIEF, PHYSICAL PLANNING

PROJECT TITLE:  
 REFRISHMENT OF  
 SIRMATA OFFICE,  
 STUDENT CENTER,  
 LOCATION: KANISU STUDENT CENTER, CITY OF BATANGAS, P.N.

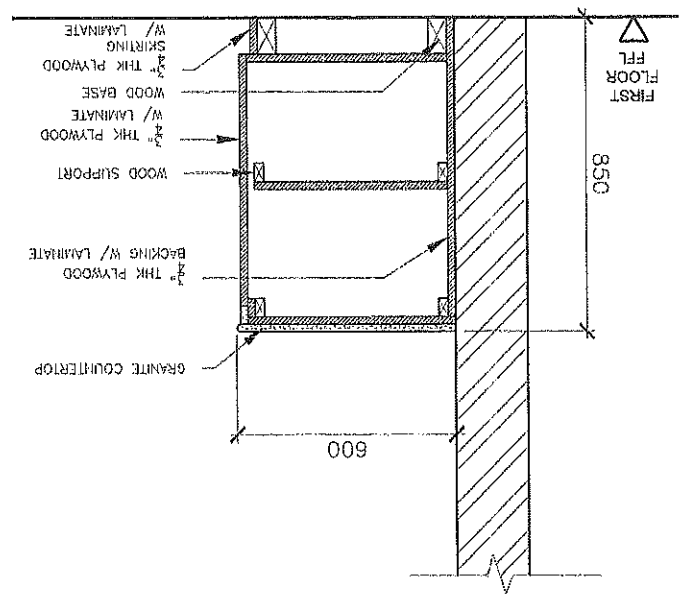
CONFORME:  
 JAMCO ENRIS B. PINCO  
 SIMPLIFIED APPROVAL  
 RECOMMENDING APPROVAL:  
 ROMEO R. DUTERA  
 DIRECTOR, PPDO

APPROVED BY:  
 SHARLEY C. ABRUPIS  
 UNIVERSITY PRESIDENT

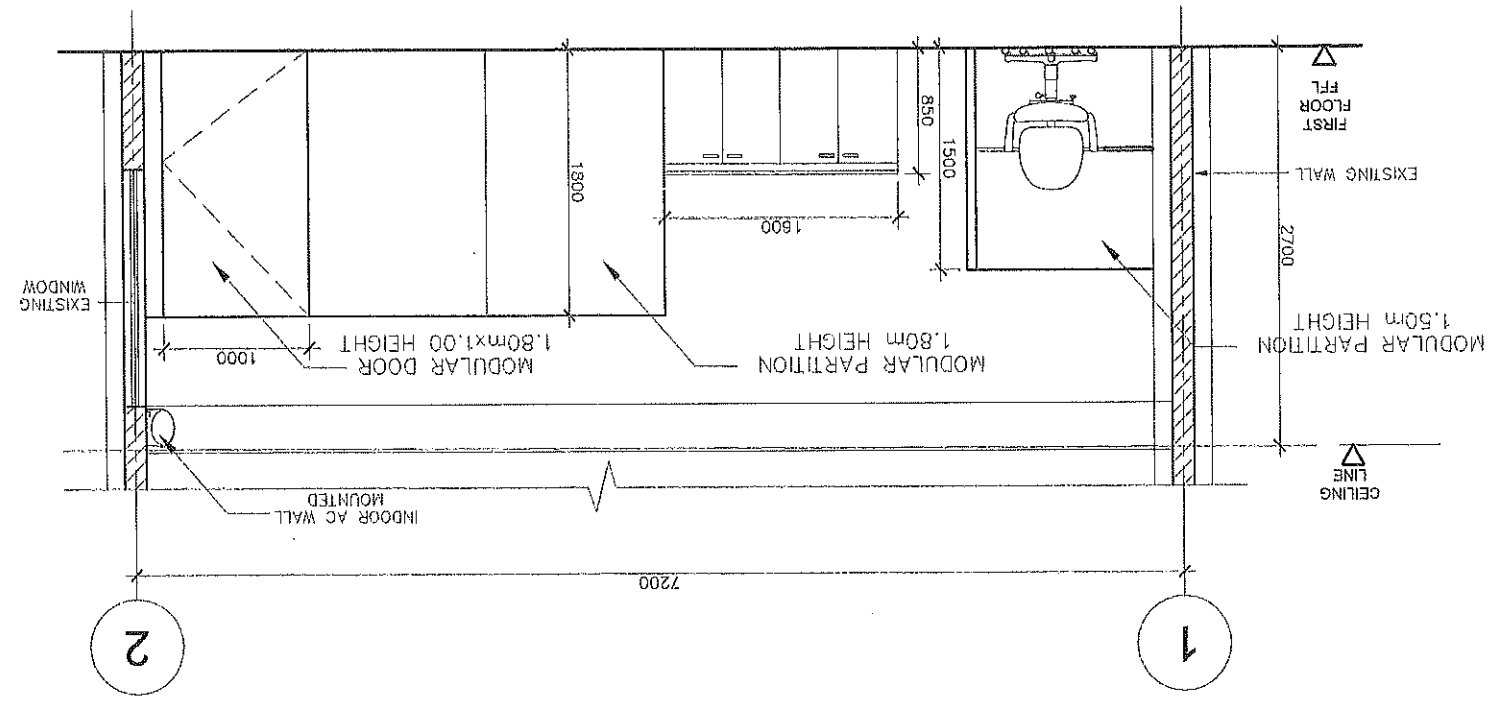
AS SHOWN
REVISION AND DATE:

SHEET NO. 3  
 A-3  
 8

SECTION OF COUNTER  
 WITH CABINET  
 SCALE 1:20 MTS



SECTION 'Y'  
 SCALE 1:50 MTS





PHYSICAL PLANNING AND DEVELOPMENT OFFICE  
 ROOM 202 FEM HALL, MARIANO MARCOS STATE UNIVERSITY  
 City of Balaoc, 2905 Ilocos Norte  
 Telbix: +63 (71) 702-3191

DRAWN BY: *DAVE CLARK E. PASCUA*  
 DRAFTSMAN II  
 PREPARED AND CHECKED BY: *LEMUEL ROSHON P. BAGAYAS*  
 ELECTRICAL ENGINEER

PROJECT TITLE:  
 REFURBISHMENT OF  
 SIRIMATA OFFICE,  
 STUDENT CENTER,

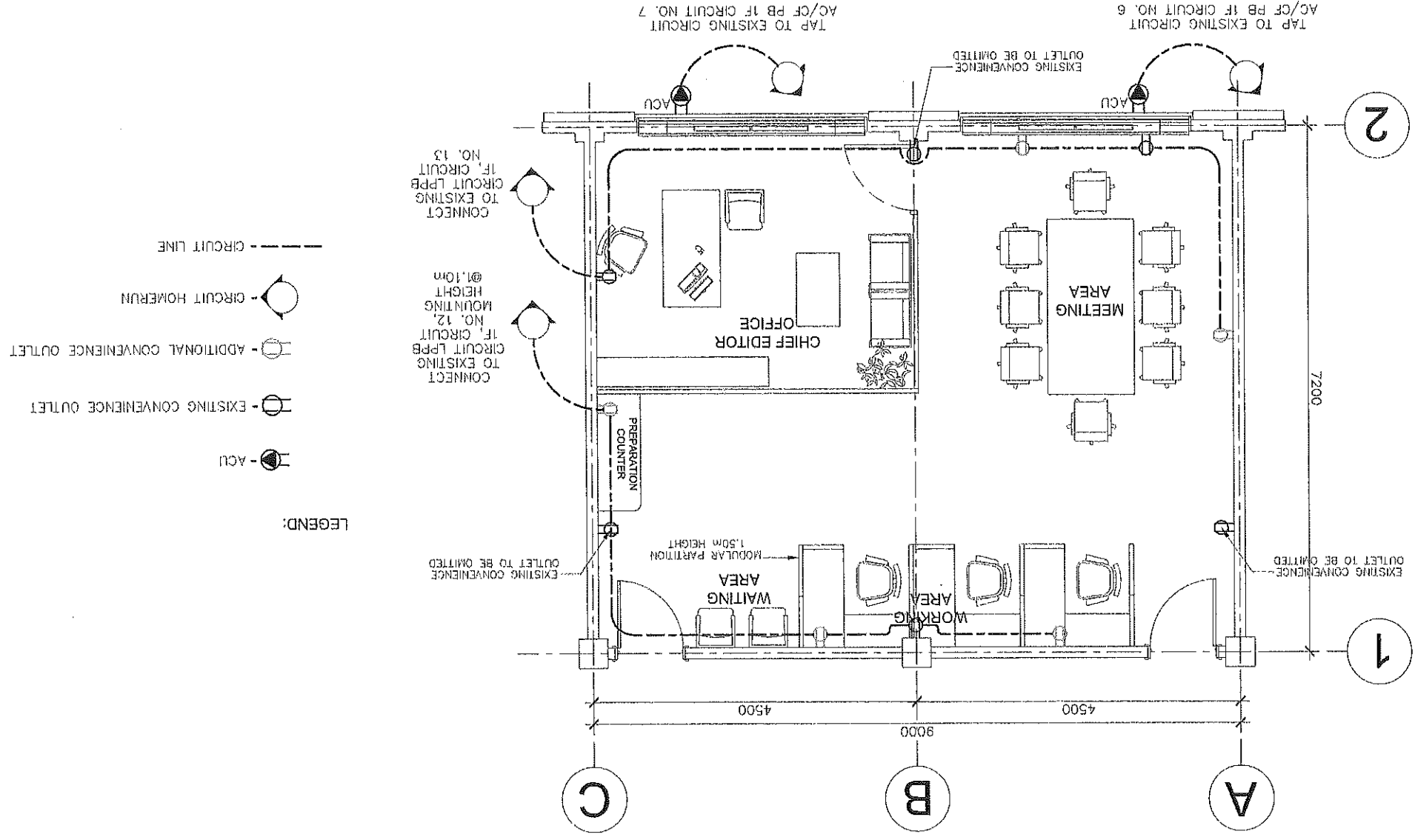
CONFORMS:  
 APPROVED BY: *JAMMO GARRIS R. JANSICO*  
 ARCHITECTURAL ENGINEER  
 RECOMMENDING APPROVAL:  
 DIRECTOR, PPD  
*ROMEO R. DUTDULAG*

APPROVED BY: *SHARLEY C. ABUJIPS*  
 UNIVERSITY PRESIDENT

SHEET CONTENTS:  
 AS SHOWN

E-1  
 1 6

SCALE 1:75  
 MTS  
**POWER LAYOUT PLAN**







PHYSICAL PLANNING AND DEVELOPMENT OFFICE

ROOM 202 FEM HALL, MARIANO MARCOS STATE UNIVERSITY  
City of Batangas, Batangas Province, Philippines  
Tel/Fax: +63 (77) 792-3191

DRAWN BY: *DAVE CLARK E. PASCUA*  
CHECKED BY: *DENNIS CLYDE G. ACANTILADO*

MECHANICAL ENGINEER/REGISTERED PLUMBER

PROJECT TITLE:  
REFURBISHMENT OF  
SIRMATA OFFICE,  
STUDENT CENTER,

LOCATION: VISU STUDENT CENTER, CITY OF BATANGAS, P.N.

CONFORMED BY: *JAMIDO CHRIS R. JINGCO*  
RECOMMENDING APPROVAL:

DIRECTOR, EPDD  
*ROMEO R. DUBUJAO*

APPROVED BY: *SHIMLEY G. TORRUPIS*  
UNIVERSITY PRESIDENT

AS SHOWN

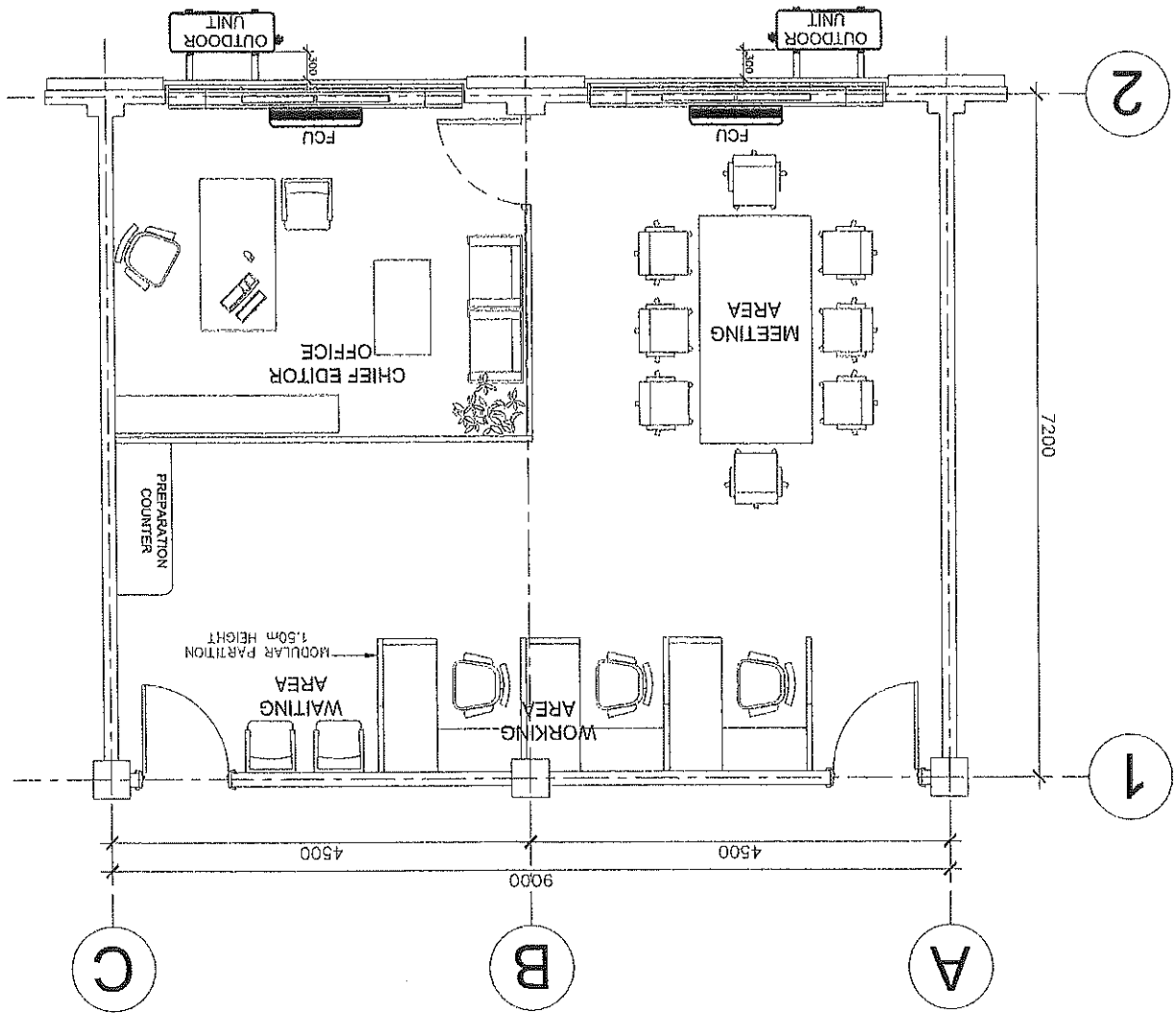
SHEET CONTENTS:

SHEET NO.:

M-1  
1  
6

# ACU LAYOUT PLAN

SCALE 1:75  
MTS





PHYSICAL PLANNING AND DEVELOPMENT OFFICE  
 ROOM 202 FEM HALL, MARIANO MARCOS STATE UNIVERSITY  
 City of Balag, 2905 Ilocos Norte  
 Telephone: +63 (77) 792-3191

FROM THE OFFICE: DRAWN BY: DAVE CLARK E. PASOYA  
 DRAFTSMAN II  
 PREPARED AND CHECKED BY: [Signature]  
 MECHANICAL ENGINEER/MASTER PLUMBER

PROJECT TITLE: REFURBISHMENT OF  
 SIRMATA OFFICE,  
 STUDENT CENTER,

CONFORME: [Signature]  
 APPROVED BY: [Signature]  
 DIRECTOR, PEDD  
 ROMEO R. DURDUVAO

APPROVED BY: [Signature]  
 UNIVERSITY PRESIDENT  
 SHARLEY C. ABONUPIS

AS SHOWN  
 REVISION AND DATE:

M-2  
 2 6

SHEET NO.

SHEET CONTENTS:

ITEM	DESCRIPTION	SPACE or ZONE	QTY	COOLING CAPACITY							
				KW	BTU/HR	KJ/HR	TR	HP	HP		
ACU1	SPLIT TYPE WALL MOUNTED - VARIABLE FREQUENCY DRIVE	SIRMATA	2	5.783	19,738	20,820	1.6	2.0	220	60	1

• USE TWO AIRCONDITIONING UNITS, DIVIDE TOTAL LOAD TO TWO (2)

C. TOTAL LOAD, Q<sub>T</sub>  
 Q<sub>T</sub> = 1.3 x (30,365.5 btu/h) = 39,475.2 btu/h  
 Q<sub>T</sub> = 11,566.2 W or 11.6 KW  
 COOLING LOAD PER AREA  
 = 64.8 m<sup>2</sup> / 11.6 KW  
 = 5.58 m<sup>2</sup> / KW x 3.516 KW/TON  
 = 19.6 m<sup>2</sup> / TOR

AIRCONDITIONING AND VENTILATION DESIGN.

ITEM	DESCRIPTION	SPACE or ZONE	QTY	COOLING CAPACITY						FULL LOAD AMP		
				KW	BTU/HR	KJ/HR	TR	HP	HP			
ACU1	SPLIT TYPE WALL MOUNTED - VARIABLE FREQUENCY DRIVE WITH FF FEATURES: AIR FILTER PM1.0 PLASMAQUAD PLASMASTER -NANOx	SIRMATA	2	5.783	19,738	20,820	1.6	2.0	220	60	1	9.3
												11.62

