

ELECTRICAL

CONFORM WITH THE RULES AND REGULATIONS OF THE NATIONAL AND LOCAL AUTHORITIES CONCERNED.

IN ADDITION TO THE ENFORCEMENT OF THE ELECTRICAL LAWS AND ORDINANCES WITH THE RULES AND REGULATIONS OF THE UTILITY COMPANY CONCERNED.

- SERVICE TO THE BUILDING AND DISTRIBUTION SHALL BE 230 V SINGLE PHASE, 2W+1, 50HZ.
- SERVICE ENTRANCE CONDUCTIONS SHALL BE IN RIGID STEEL CONDUIT.
- BRANCH CONDUIT WORK SHALL BE IN PVC (POLYVINYL CHLORIDE), AND SMALLEST SIZE SHALL BE 1" TRADE SIZE.

- SMALLEST SIZE OF WIRE SHALL BE 15MM<sup>2</sup> FOR LIGHTING AND FOR CONVENIENCE OUTLET, AND SHALL BE INSTALLED AT 60CM.

- LIGHT SWITCHES SHALL BE MOUNTED AT 15A, 2400.

- SHOULDER BUTTES SHALL BE GALVA #16 STEEL, PRESSED:

- A. CEILING LIGHTING: 2" DEEP JUNCTION BOX (J.B.) FOR 1 TO 4 CONDUIT ENTRIES
- B. WALL SWITCHES: 2" DEEP UTILITY BOX (U.B.) FOR 1-4 CONDUIT TO 3-GANG SWITCH ON ONE STRAP
- C. CONVENIENCE OUTLET: 2" DEEP UTILITY BOX FOR 1 OR 2 CONDUIT ENTRIES

- SWITCHES: 1.4 METERS ABOVE FLOOR

- CONVENIENCE OUTLET: 0.30 METERS ABOVE FLOOR OR AS INDICATED

- PANELBOARDS: 1.50 METERS ABOVE FLOOR

- ALL ELECTRICAL MATERIALS, DEVICES, EQUIPMENT AND ACCESSORIES TO BE INSTALLED SHALL BE NEW AND APPROVED TYPE FOR THE LOCATION AND PURPOSES.

- DATA PRESENTED ON THE PLAN ARE ASSUMED AS PRELIMINARY SURVEY THAT PLANNING CAN BE DEPENDANT. BUT ALL INFORMATION IS CORRECT OR ACCURATE AND CANNOT BE GUARANTEED. FIELD VERIFICATION OF ALL DIMENSIONS IS REQUIRED ON ACTUAL CONSTRUCTION OF WORK. THIS IS FOR GUIDANCE, BUT LEVEL SHALL BE GOVERNED BY FIELD CONDITIONS.

LEGEND

5	THREE POLE DOUBLE THROW SWITCH IN THREE GANG-PLATE COVER, 15AMPS, 220 V
5a	THREE-WAY SWITCH 15AMPS, 220V IN ONE GANG-PLATE COVER
5b	THREE-WAY SWITCH 15AMPS, 220V IN ONE GANG-PLATE COVER
①	CIRCUIT NUMBER INDICATE CIRCUIT NUMBER
○	UNLATCHED
○	LATCHED
○	LIGHTING PANEL
○	CONDUIT CONVENIENCE OUTLET 200V, 10AMPS, GROUNDING TYPE
○	2 x 40 / 12" x 48 RECESSED DIFFUSER LIGHTING

DESCRIPTION, NEARBY EXTENSION														
PROTECTION (GAT) 100AF / 3P														
VOLTAGE 400V / 3Ø BOLT ON														
CKT. NO.	CIRCUIT BREAKER RATING	POLE	TRIP	FRAME	WIRE / CABLE SIZE	GROUND WIRE	CONDUIT	LOAD DESCRIPTION	VA LOAD	AMPERE LOAD				
										AB	BC	CA	3 Ø	
1	20A	1	20	50	2-3.5mm <sup>2</sup>	1-3.5mm <sup>2</sup>	20mmØ PVC	L.O. (15)	1000	6.5				
2	20A	1	20	50	2-3.5mm <sup>2</sup>	1-3.5mm <sup>2</sup>	20mmØ PVC	L.O. (16)	1000	6.5				
3	20A	1	20	50	2-3.5mm <sup>2</sup>	1-3.5mm <sup>2</sup>	20mmØ PVC	L.O. (18)	1800			7.8		
4	20A	1	20	50	2-3.5mm <sup>2</sup>	1-3.5mm <sup>2</sup>	20mmØ PVC	L.O. (23)	2300			10		
5	20A	1	20	50	2-3.5mm <sup>2</sup>	1-3.5mm <sup>2</sup>	20mmØ PVC	C.O. (9)	1800			7.8		
6	20A	1	20	50	2-3.5mm <sup>2</sup>	1-3.5mm <sup>2</sup>	20mmØ PVC	C.O. (9)	1800			7.8		
7	20A	1	20	50	2-3.5mm <sup>2</sup>	1-3.5mm <sup>2</sup>	20mmØ PVC	A/C 1HP			8			
8	20A	1	20	50	2-3.5mm <sup>2</sup>	1-3.5mm <sup>2</sup>	20mmØ PVC	A/C 2HP			12			
9	20A	1	20	50				spare						
10	20A	1	20	50				spare						
11	30A	3	30	50	3-5.5mm <sup>2</sup>	1-5.5mm <sup>2</sup>	20mmØ PVC	3 TONNER					6.1	
12	30A	3	30	50	3-5.5mm <sup>2</sup>	1-5.5mm <sup>2</sup>	20mmØ PVC	3 TONNER					6.1	
13	30A	3	30	50	3-5.5mm <sup>2</sup>	1-5.5mm <sup>2</sup>	20mmØ PVC	5 TONNER					6.7	
14	30A	3	30	50	3-5.5mm <sup>2</sup>	1-5.5mm <sup>2</sup>	20mmØ PVC	5 TONNER					6.7	

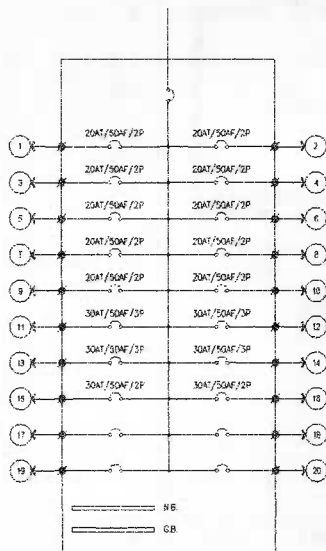
LOAD COMPUTATION:

$$I = (33 + 31.8) + 25K (9.7)$$

$$= 64.8 + 2.425 = 67 \text{ AMP}$$

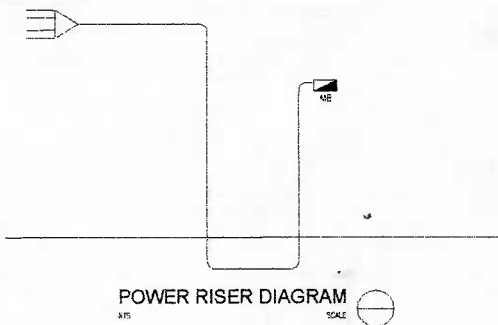
$$= 67 (1.2) = 80.78$$

USE: 100AF / 100AF / 3P  
 4-30mm<sup>2</sup> THHN  
 1- 6 mm<sup>2</sup> TRM  
 Ø 40mmØ PVC



2 PANEL BOARD DIAGRAM  
SCALE NTS

3Ø/400V TO 100A METER CENTER



POWER RISER DIAGRAM  
SCALE NTS

PROPOSED REPAIR OF OHS AND PMA OFFICE  
 PHILIPPINE PUBLIC SAFETY COLLEGE  
 DEPARTMENT OF ELECTRICAL ENGINEERING  
 UNIVERSITY OF CALLOSASAN - MARICOR CAMPUS  
 MARICOR, CAVITE

**ELECTRICAL**

CONFORM WITH THE RULES AND REGULATIONS OF THE NATIONAL AND LOCAL AUTHORITIES CONCERNED.

DESIGNED IN THE ENFORCEMENT OF THE ELECTRICAL LAWS AND ORDINANCES AND WITH THE RULES AND REGULATIONS OF THE UTILITY COMPANY CONCERNED.

- SERVICE TO THE BUILDING AND DISTRIBUTION SHALL BE 230 V, SINGLE PHASE, 2P+1E, 60Hz.
- SERVICE ENTRANCE CONDUCTOR SHALL BE IN RIGID STEEL CONDUIT.
- BRANCH CONDUIT WIRING SHALL BE IN PVC (POLYVINYL CHLORIDE), AND SMALLEST SIZE SHALL BE 1" TRADE SIZE.

4. SMALLEST SIZE OF WIRE SHALL BE 35mm<sup>2</sup> FOR LIGHTING AND FOR CONVENIENCE OUTLET, AND SHALL BE INSTALLED AT 900V.

5. LIGHT SWITCHES SHALL BE MATED AT USA 240V.

6. OUTLET BOXES SHALL BE GAUGE #16 STEEL PRESSED.

A. CEILING LIGHTING 2" DEEP ANCHOR BOX D.T. FOR 1 TO 4 CONDUIT ENTRIES

B. WALL SWITCHES 2" DEEP UTILITY BOX D.T. FOR A-GANG TO 3-GANG SWITCH ON ONE STRAP

C. CONVENIENCE OUTLET 2" DEEP UTILITY BOX FOR 1 OR 2 CONDUIT ENTRIES

7. MOUNTING HEIGHT SHALL BE AS FOLLOWS :

A. SWITCHES 1.4 METERS ABOVE FLOOR

R. CONVENIENCE OUTLET 0.30 METERS ABOVE FLOOR OR AS INDICATED

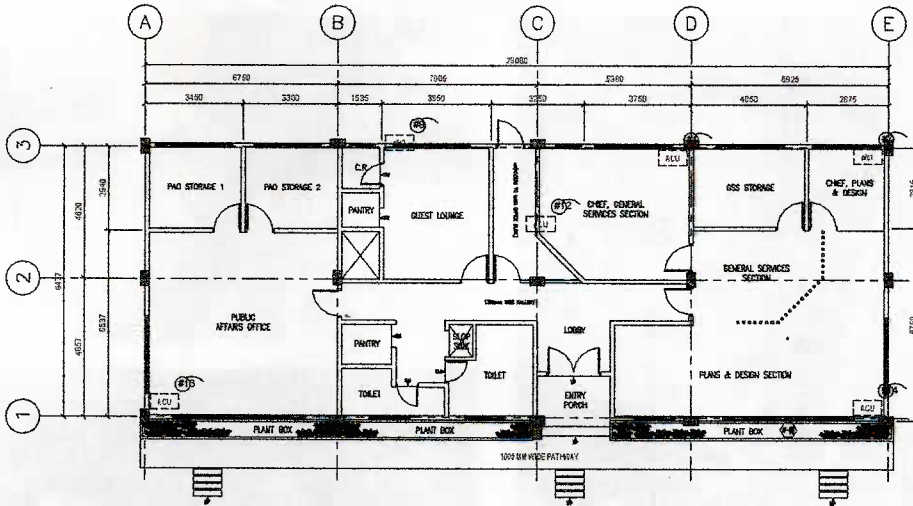
C. PANELBOARDS 1.50 METERS ABOVE FLOOR

8. ALL ELECTRICAL MATERIALS, GOODS, EQUIPMENT AND ACCESSORIES TO BE INSTALLED SHALL BE NEW AND APPROVED TYPE FOR THE LOCATION AND PURPOSES.

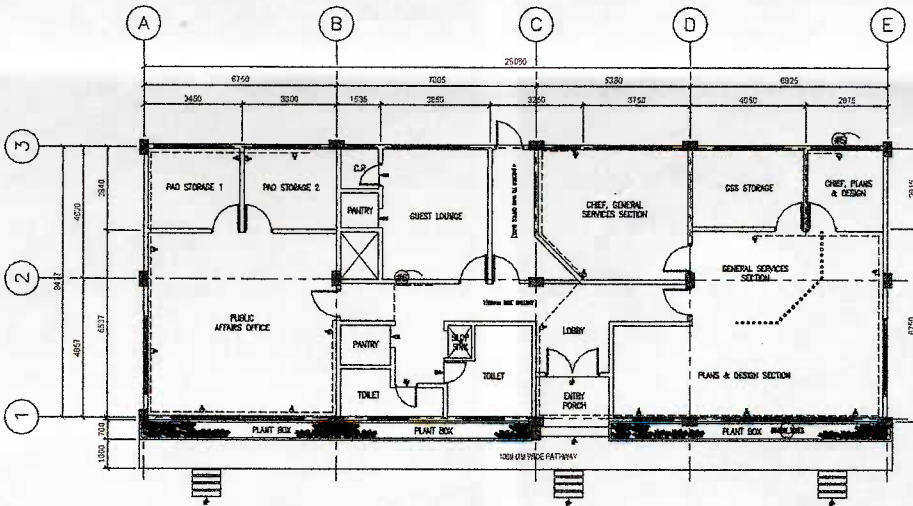
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**LEGEND**

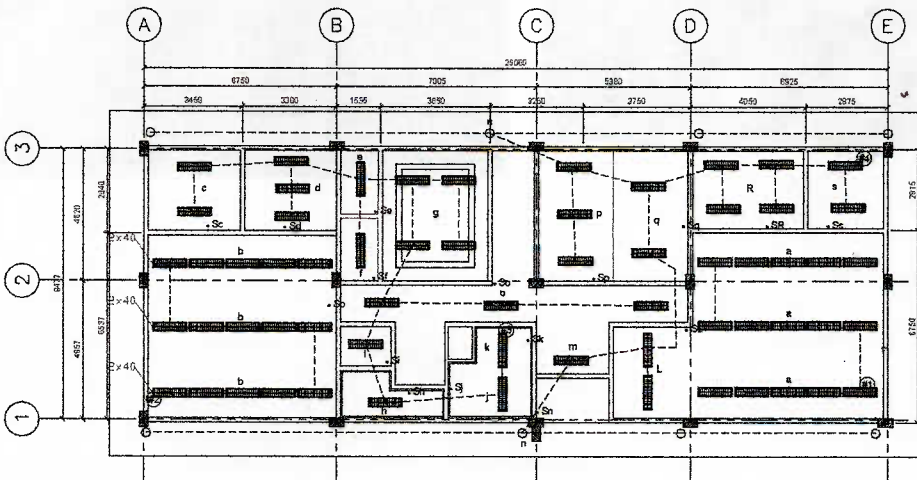
• S <sub>100</sub>	THREE POLE, SINGLE THROW SWITCH IN THREE GANG-PLATE COVER, 15AMPS, 220 V
* S <sub>100</sub>	TWO-WAY SWITCH 15AMPS, 220V IN ONE GANG PLATE COVER
* S <sub>100</sub>	THREE-WAY SWITCH 15AMPS, 220V IN ONE GANG-PLATE COVER
○	CIRCUIT NUMBER INDICATE CIRCUIT NUMBER
→	SERVICE ENTRANCE
□	LIGHTING PANEL
□	DUPLEX CONVENIENCE OUTLET 250W, 15AMPS, GROUNDING TYPE
□	2 x 40 / 12" x 48 RECESSED DIFFUSER LUMINAIRE



**1 GROUND FLOOR ACU LAYOUT**  
E-02 SCALE 1:100m



**2 GROUND FLOOR POWER LAYOUT**  
E-02 SCALE 1:100m



**3 GROUND FLOOR LIGHTING LAYOUT**  
E-02 SCALE 1:100m

PHILIPPINE PUBLIC SAFETY COLLEGE  
 PROJECT ENGINEER: [Name]  
 ELECTRICAL ENGINEER: [Name]  
 ARCHITECT: [Name]  
 CIVIL ENGINEER: [Name]  
 MECHANICAL ENGINEER: [Name]  
 SANITARY ENGINEER: [Name]  
 STRUCTURAL ENGINEER: [Name]  
 ELECTRICAL ENGINEER: [Name]  
 CIVIL ENGINEER: [Name]  
 MECHANICAL ENGINEER: [Name]  
 SANITARY ENGINEER: [Name]  
 STRUCTURAL ENGINEER: [Name]