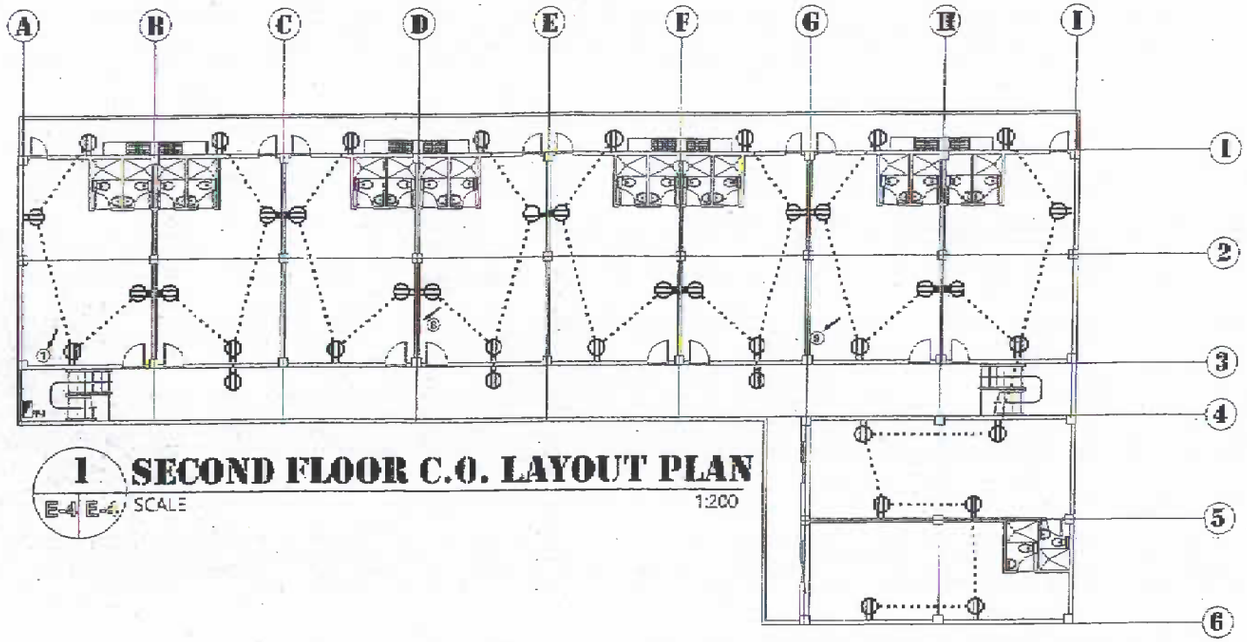


1 SECOND FLOOR C.O. LAYOUT PLAN

E-4 E-4 SCALE 1:200

RELEASED BY: ROMBLON STATE UNIVERSITY OFFICE OF AUXILIARY, PLANT SERVICES AND POLLUTION CONTROL UNIT	ELECTRICAL ENGINEER: ROLANDO N. CRUZ PROF. ELECTRICAL ENGINEER #27652 ADDRESS: 210 AURELIO BLDG. PTR No.: Date: Place: TIN	CHECKED BY: JASON F. RUFON APPROVED BY: ARNULFO E. DE LUNA RSU President	PROJECT TITLE: Construction of Student Dormitory for the College of Agriculture, Fishery & Forestry LOCATION: ROMBLON STATE UNIVERSITY - San Andres, Romblon	SHEET CONTENT: AS SHOWN	PREPARED BY: CAD OPERATOR: Kenneth M. Rotani JOB NO.: DATE: DEC. 2018	E-4

PP-A SCHEDULE OF LOADS

CIRCUIT NUMBER	LIGHT OUTLET	CONV. OUTLET	LOAD DESCRIPTION	POWER (VA)	VOLTAGE (VOLTS)	WIRE SIZE	CONDUIT SIZE	PROTECTION AT	PROTECTION AF	AMPERES
1	10		10 L.O. @ 32VA EACH	320	230V	2.0mm² THW	15mmø	15	100	1.39AMPS
2	10		10 L.O. @ 32VA EACH	320	230V	2.0mm² THW	15mmø	15	100	1.39AMPS
3	10		10 L.O. @ 32VA EACH	320	230V	2.0mm² THW	15mmø	15	100	1.39AMPS
4	10		10 L.O. @ 32VA EACH	320	230V	2.0mm² THW	15mmø	15	100	1.39AMPS
5	9		9 L.O. @ 32VA EACH	288	230V	2.0mm THW	15mmø	15	100	1.25AMPS
6	6		6 L.O. @ 32VA EACH	192	230V	2.0mm THW	15mmø	15	100	0.83AMPS
7		13	13 C.O. @ 180VA EACH	2340	230V	3.5mm² THW	15mmø	20	100	10.17AMPS
8		13	13 C.O. @ 180VA EACH	2340	230V	3.5mm² THW	15mmø	20	100	10.17AMPS
9		14	14 C.O. @ 180VA EACH	2520	230V	3.5mm THW	15mmø	20	100	10.95AMPS
10			SPARE	180	230V	3.5mm THW	15mmø	30	100	0.78AMPS
TOTAL				9140						39.71

PP-A SCHEDULE OF LOADS

CIRCUIT NUMBER	LIGHT OUTLET	CONV. OUTLET	LOAD DESCRIPTION	POWER (VA)	VOLTAGE (VOLTS)	WIRE SIZE	CONDUIT SIZE	PROTECTION AT	PROTECTION AF	AMPERES
1	10		10 L.O. @ 32VA EACH	320	230V	2.0mm² THW	15mmø	15	100	1.39AMPS
2	10		10 L.O. @ 32VA EACH	320	230V	2.0mm² THW	15mmø	15	100	1.39AMPS
3	10		10 L.O. @ 32VA EACH	320	230V	2.0mm² THW	15mmø	15	100	1.39AMPS
4	10		10 L.O. @ 32VA EACH	320	230V	2.0mm² THW	15mmø	15	100	1.39AMPS
5	9		9 L.O. @ 32VA EACH	288	230V	2.0mm THW	15mmø	15	100	1.25AMPS
6	8		8 L.O. @ 32VA EACH	256	230V	2.0mm THW	15mmø	15	100	1.11AMPS
7		13	13 C.O. @ 180VA EACH	2340	230V	3.5mm² THW	15mmø	20	100	10.17AMPS
8		13	13 C.O. @ 180VA EACH	2340	230V	3.5mm² THW	15mmø	20	100	10.17AMPS
9		14	14 C.O. @ 180VA EACH	2520	230V	3.5mm THW	15mmø	20	100	10.95AMPS
10			SPARE	180	230V	3.5mm THW	15mmø	30	100	0.78AMPS
TOTAL				9204						39.99

TOTAL COMPUTATION OF LOADS

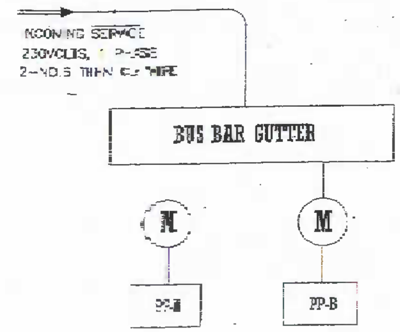
MAXIMUM POWER DEMAND = TOTAL COMPUTED LOAD X DEMAND FACTOR @ 80% B.F.

= (9140 + 9204) 0.80

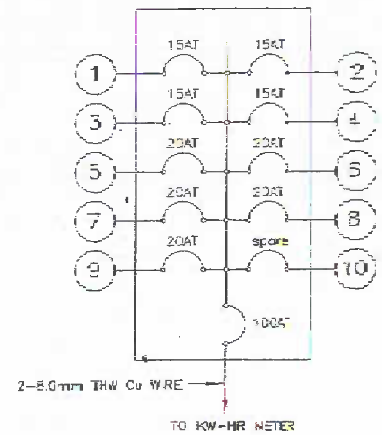
MAX. POWER DEMAND = 14675.2VA

$$I_T = \frac{14575.2}{230} = 63.80 \text{ AMPS}$$

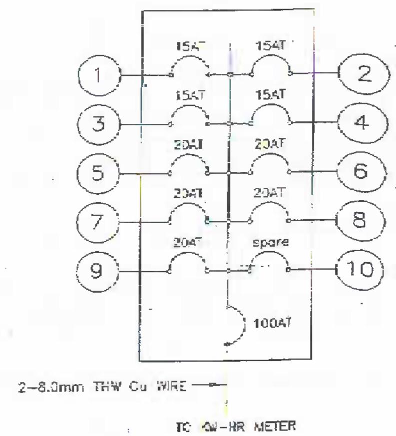
NOTE : 30 KVA



1 LINE DIAGRAM
E-5 E-5 SCALE NTS.



2 PP-A CIRCUIT BREAKER DIA.
E-5 E-5 SCALE 1:100



3 PP-B CIRCUIT BREAKER DIA.
E-5 E-5 SCALE 1:100

PREPARED BY:	ELECTRICAL ENGINEER:	CHECKED BY:	PROJECT TITLE:	SHEET CONTENT:	PREPARED BY:
ROMBLON STATE UNIVERSITY OFFICE OF AUXILIARY, PLANT SERVICES AND POLLUTION CONTROL UNIT	ROLANDO W. CRUZ PROF. ELECTRICAL ENGINEER #2852 ADDRESS 210 AURELIO BLDG. PRC REG. AVE./9TH ... PTR # 9023241-3-15/NLCA PTR No.: Date: Place TIN:	JASONE RUFON APPROVED BY: ARNULFO F. DE LUNA	Construction of Student Dormitory for the College of Agriculture, Fishery & Forestry LOCATION: ROMBLON STATE UNIVERSITY-San Andres, Romblon	AS SHOWN	CAD OPERATOR: Nenwel M. Fotoni JOB NO.: DATE: DEC. 2018

E-5

ELECTRICAL NOTES :

1. ALL ELECTRICAL WORKS SHALL BE DONE IN ACCORDANCE W/ THE PROVISION OF THE LATEST EDITION OF THE PHIL. ELECTRICAL CODE (PEC). THE RULES AND REGULATIONS OF LOCAL AND NATIONAL AUTHORITIES CONCERNED WITH ENFORCEMENT OF RULES AND REGULATIONS OF LOCAL UTILITY COMPANY.
2. THE SERVICE VOLTAGE TO THE BUILDING SHALL BE THREE (3) PHASE, FOUR (4)WIRE 230 VOLTS, 40 HERTZ SYSTEM.
3. THE INSTALLATION SHALL BE DONE AS FOLLOWS

A. RIGID STEEL CONDUIT (RSC) - POWER SERVICE ENTRANCE FEEDERS

B. POLYVENYL CHLORIDE (PVC) - LIGHTING POWER BRANCH CIRCUITS AND AUXILIARY LAYOUT.

4. ALL WIRES TO BE USED SHALL BE COPPER AND THERMOPLASTIC HEAT INSULATED TYPE "THIN" UNLESS NOTED OTHERWISE SPECIFIED.
5. ALL MATERIALS TO BE USED SHALL BE BRAND NEW AND OF THE APPROVED TYPE FOR THE LOCATION AND PURPOSED INTENDED.
6. THE MINIMUM SIZE OF WIRE AND CONDUIT TO BE USED SHALL BE 1.4mm THIN AND 2.0mmØ RESPECTIVELY.
7. WHENEVER NECESSARY PULL BOX SHALL BE PRODUCED EVEN NOT INDICATED BY THE PLAN.
8. BRANCH CIRCUIT HOMERUNS SHALL NOT BE COMBINED BY THE SAME RACEWAY AND RACEWAY FOR AUXILIARY LINES SHALL NOT CONTAIN POWER LINES.
9. MOUNTING HEIGHTS SHALL BE AS FOLLOWS

a. 0.30m ABOVE FLOOR FINISH	-	CONV. OUTLET & AUX. OUTLET
b. 1.40m ABOVE FLOOR FINISH	-	LIGHT CONTROL SWITCH
c. 1.70m ABOVE FLOOR FINISH @ CENTER	-	PANEL BOARDS
d. ALL OTHER HEIGHTS	-	VERIFY TO THE ARCHITECT/ENGINEER

10. ALL SERVICE ENTRANCE EQUIPMENTS SUCH AS PANELBOARD SHALL BE PROPERLY GROUNDED IN ACCORDANCE WITH THE PROVISION OF THE PHILIPPINE ELECTRICAL CODE.
11. ALL ELECTRICAL WORKS AND INSTALLATIONS HEREIN SHALL BE DONE UNDER THE DIRECT SUPERVISION OF A DULY REGISTERED ELECTRICAL ENGINEER OR MASTER ELECTRICIAN.

LEGEND:

Symbol	Description
	CEILING LIGHT
	FLUORESCENT LAMP
C.O.	DUPLEX CONVENIENCE OUTLET
WF	WEATHER PROOF C.O.
WP	WATER PUMP
	RISER
	CIRCUIT BREAKER
S1	SINGLE SWITCH IN ONE GANG
S2	DOUBLE SWITCH IN ONE GANG
S3	TRIPLE SWITCH IN ONE GANG
PP-A	LIGHTING AND POWER PANEL
1	CIRCUIT HOMERUN
	SERVICE ENTRANCE
M	KILOWATTHOUR METER
	RACEWAY EMBEDDED TO CEILING
	RACEWAY EMBEDDED TO FLOOR
	SWITCH RACEWAY
	CIRCULAR LIGHT

PREPARED BY:	ELECTRICAL ENGINEER:	CHECKED BY:	PROJECT TITLE:	SHEET CONTENT:	PREPARED BY:	
ROMBLON STATE UNIVERSITY OFFICE OF AUXILIARY, PLANT SERVICES AND POLLUTION CONTROL UNIT	ROLANDO N. CRUZ PROF. ELECTRICAL ENGINEER -7352 PRC REG. NO. PTR No.: Date: Place: TIN:	JASON B. RUFON APPROVED BY: ARNULFO F. DE LUNA	Construction of Student Dormitory for the College of Agriculture, Fishery & Forestry LOCATION: ROMBLON STATE UNIVERSITY - San Andres, Romblon	AS SHOWN	CAD OPERATOR: Neowel M. Rotoni JOB NO.: DATE: DEC. 2018	E-5