

PANEL BOARD 3 Tissue Culture : FEEDER BREAKER 3-POLE, 80AT, 100AF; FEEDER CONDUCTOR 3 - 22.0mm ² THHN & 8.0mm ² THHN in 40mmØ PVC													
CIRCUIT NUMBER	LOAD DESCRIPTION	VA LOAD	AB	CA	BC	CIRCUIT BREAKER			CONDUCTOR		CONDUIT		
						POLE	AF	AT	SIZE	TYPE	DIAMETER	TYPE	
1	Equipment GFCI Outlet	2,750	11.96			2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
2	Equipment GFCI Outlet	2,750		11.96		2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
3	Equipment GFCI Outlet	2,750			11.96	2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
4	Equipment GFCI Outlet	2,750	11.96			2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
5	Equipment GFCI Outlet	2,750		11.96		2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
6	Equipment GFCI Outlet	2,750			11.96	2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
7	Equipment GFCI Outlet	2,750	11.96			2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
8	Equipment GFCI Outlet	2,750		11.96		2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
9	5 sets of 180VA Convenience Outlet	900			3.91	2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
10	Spare	1,500	6.52			2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
11	Spare	1,500		6.52		2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
12	Spare	1,500			6.52	2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
TOTAL		27,400	42.39	42.39	34.35								

FEEDER CONDUCTOR:

IFL = $\sqrt{3}$ (42.39)
= 73.42 AMP

USE: 3 - 22.0mm² THHN & 8.0mm² THHN in 40mmØ PVC

FEEDER PROTECTION:

USE: 3P 80AT, 240V, 100AF, 60Hz MCB

PANEL BOARD 4 Laboratory 1 : FEEDER BREAKER 3-POLE, 80AT, 100AF; FEEDER CONDUCTOR 3 - 22.0mm ² THHN & 8.0mm ² THHN in 40mmØ PVC													
CIRCUIT NUMBER	LOAD DESCRIPTION	VA LOAD	AB	CA	BC	CIRCUIT BREAKER			CONDUCTOR		CONDUIT		
						POLE	AF	AT	SIZE	TYPE	DIAMETER	TYPE	
1	Equipment GFCI Outlet	2,750	11.96			2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
2	Equipment GFCI Outlet	2,750		11.96		2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
3	Equipment GFCI Outlet	2,750			11.96	2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
4	Equipment GFCI Outlet	2,750	11.96			2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
5	Equipment GFCI Outlet	2,750		11.96		2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
6	Equipment GFCI Outlet	2,750			11.96	2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
7	Equipment GFCI Outlet	2,750	11.96			2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
8	Equipment GFCI Outlet	2,750		11.96		2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
9	5 sets of 180VA Convenience Outlet	900			3.91	2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
10	Spare	1,500	6.52			2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
11	Spare	1,500		6.52		2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
12	Spare	1,500			6.52	2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
TOTAL		27,400	42.39	42.39	34.35								

FEEDER CONDUCTOR:

IFL = $\sqrt{3}$ (42.39)
= 73.42 AMP

USE: 3 - 22.0mm² THHN & 8.0mm² THHN in 40mmØ PVC

FEEDER PROTECTION:

USE: 3P 80AT, 240V, 100AF, 60Hz MCB

PANEL BOARD 5 Analytical Laboratory : FEEDER BREAKER 3-POLE, 80AT, 100AF; FEEDER CONDUCTOR 3 - 22.0mm ² THHN & 8.0mm ² THHN in 40mmØ PVC													
CIRCUIT NUMBER	LOAD DESCRIPTION	VA LOAD	AB	CA	BC	CIRCUIT BREAKER			CONDUCTOR		CONDUIT		
						POLE	AF	AT	SIZE	TYPE	DIAMETER	TYPE	
1	Equipment GFCI Outlet	2,750	11.96			2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
2	Equipment GFCI Outlet	2,750		11.96		2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
3	Equipment GFCI Outlet	2,750			11.96	2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
4	Equipment GFCI Outlet	2,750	11.96			2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
5	Equipment GFCI Outlet	2,750		11.96		2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
6	Equipment GFCI Outlet	2,750			11.96	2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
7	7 sets of 180VA Convenience Outlet	1,260	5.48			2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
8	Spare	1,500		6.52		2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
9	Spare	1,500			6.52	2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
10	Spare	1,500	6.52			2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
11	Spare	1,500		6.52		2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
12	Spare	1,500			6.52	2	100	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
TOTAL		25,260	35.91	36.96	36.96								

FEEDER CONDUCTOR:

IFL = $\sqrt{3}$ (36.96)
= 64.01 AMP

USE: 3 - 22.0mm² THHN & 8.0mm² THHN in 40mmØ PVC

FEEDER PROTECTION:

USE: 3P 80AT, 240V, 100AF, 60Hz MCB

PANEL BOARD 6 ACU : FEEDER BREAKER 3-POLE, 125AT, 250AF; FEEDER CONDUCTOR 3 - 38.0mm ² THHN & 14.0mm ² THHN in 50mmØ PVC													
CIRCUIT NUMBER	LOAD DESCRIPTION	VA LOAD	AB	CA	BC	CIRCUIT BREAKER			CONDUCTOR		CONDUIT		
						POLE	AF	AT	SIZE	TYPE	DIAMETER	TYPE	
1	1 set of 1HP Mounted Air-Conditioning Unit	746	3.24			2	250	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
2	1 set of 3HP Mounted Air-Conditioning Unit	2,238		9.73		2	250	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
3	1 set of 2HP Ceiling Cassette 4-Way Air-Conditioning Unit	1,492			6.49	2	250	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
4	1 set of 2HP Ceiling Cassette 4-Way Air-Conditioning Unit	1,492	6.49			2	250	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
5	1 set of 2HP Ceiling Cassette 4-Way Air-Conditioning Unit	1,492		6.49		2	250	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
6	1 set of 2HP Ceiling Cassette 4-Way Air-Conditioning Unit	1,492			6.49	2	250	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
7	1 set of 3HP Mounted Air-Conditioning Unit	2,238	9.73			2	250	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
8	1 set of 2HP Mounted Air-Conditioning Unit	1,492		6.49		2	250	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
9	1 set of 3HP Mounted Air-Conditioning Unit	2,238			9.73	2	250	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
10	1 set of 4HP Ceiling Cassette 4-Way Air-Conditioning Unit	2,984	12.97			2	250	30	2 - 5.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
11	1 set of 2HP Ceiling Cassette 4-Way Air-Conditioning Unit	1,492		6.49		2	250	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
12	1 set of 3HP Ceiling Cassette 4-Way Air-Conditioning Unit	2,238			9.73	2	250	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
13	1 set of 4HP Ceiling Cassette 4-Way Air-Conditioning Unit	2,984	12.97			2	250	30	2 - 5.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
14	1 set of 2HP Ceiling Cassette 4-Way Air-Conditioning Unit	1,492		6.49		2	250	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
15	Spare	1,500			6.52	2	250	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
16	Space with Busbar												
17	Spare	1,500		6.52		2	250	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
18	Spare	1,500			6.52	2	250	20	2 - 3.5mm ² & 1 - 3.5mm ²	THHN	20mm	PVC PIPE	
TOTAL		30,237	45.41	42.20	45.48								

FEEDER CONDUCTOR:


IFL = $\sqrt{3}$ (45.48 + 12.97 @ 25%)
= 106.85 AMP

USE: 3 - 38.0mm² THHN & 14.0mm² THHN in 50mmØ PVC

FEEDER PROTECTION:

USE: 3P 125AT, 240V, 250AF, 60Hz MCB

1 SCHEDULE OF LOADS

	FROM THE OFFICE: PHYSICAL PLANNING AND DEVELOPMENT OFFICE <small>2/F 202 ADMINISTRATION BLDG. MARIANO MARCOS STATE UNIVERSITY CITY OF BATAK, 2906 ILOCOS NORTE TELEFAX: +63 (77)792-3191</small>	DRAWN BY: <u>BJAYA A. DAYANG</u> <small>DRAFTSMAN I</small>	SIGNED & SEALED BY: <small>PROFESSIONAL ELECTRICAL ENGINEER</small> <hr/> <small>PRC NO.:</small> <small>PTR.:</small> <small>PLACE ISSUED:</small> <small>DATE:</small> <small>TIN:</small>	PROJECT TITLE: CONSTRUCTION OF RDE BUILDING PHASE III	CONFORME: <u>BJORN S. SANTOS</u> <small>DIRECTOR, RESEARCH</small>	APPROVED BY: <u>ROMEO R. DULDULO</u> <small>DIRECTOR, PPOD</small>	APPROVED BY: <u>SHIRLEY C. AGRUPIS</u> <small>UNIVERSITY PRESIDENT</small>	SHEET CONTENTS: SCHEDULE OF LOADS <small>Drawings and specifications and other contract documents duly signed, stamped or sealed, as instruments of service, are the intellectual property and documents of the architect. Whether the object for which they are made is executed or not, it shall be unlawful for any person to duplicate or to make copies of said documents for use in the repetition of and for other project or building, whether executed party or in whole, without the written consent of architect or author of said document. Art. IV-sec. 338A(2)(6)</small>	SHEET NO: <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <div style="text-align: center;"> <p>E-11</p> <p>11 14</p> </div> </div>
	LOCATION: MMSU CRL-CITY OF BATAK, ILOCOS NORTE								