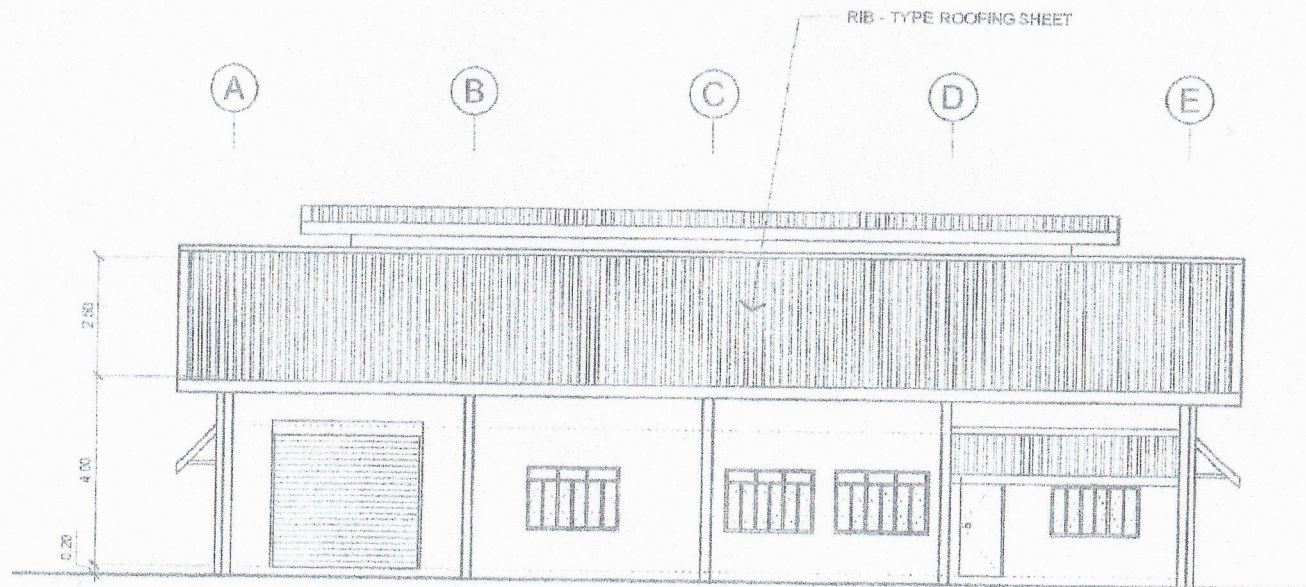


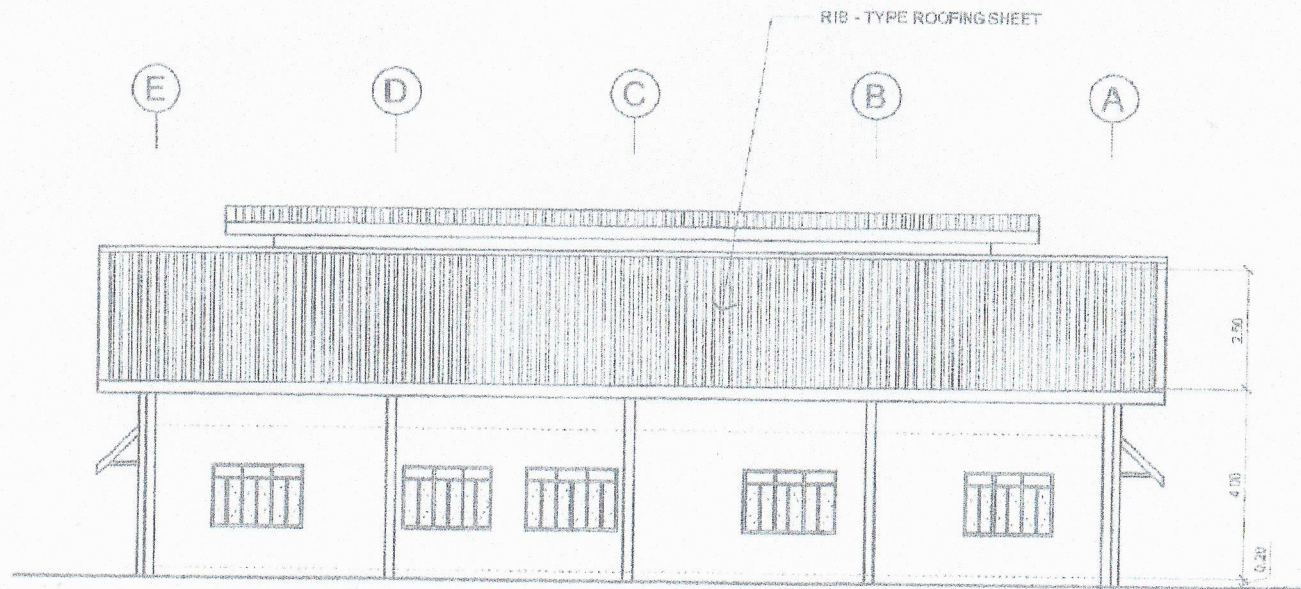


FRONT ELEVATION

SCALE

1 : 150 MTS.

PREPARED BY <i>E. N. RODRIGUEZ JR.</i>		ENDORSED BY <i>R. B. CUBILLA</i>		REC. APPROVAL <i>L. L. CERO</i>	APPROVED BY <i>D. ROBLES</i>	PROJECT TITLE/LOCATION UPGRADING OF NORDEC COFFEE PRODUCT DEVT. FACILITY CVSU, MAIN CAMPUS	IMPLEMENTING AGENCY CAVITE STATE UNIVERSITY	SHT NO. 2
PROUSE G. M. CASTILLO DIR. NORDEC		DIR. PLANNING OFFICE R. B. CUBILLA	VPRPD L. L. CERO CVSU	VPASS H. O. GARCIA CVSU	PRES D. ROBLES CVSU			

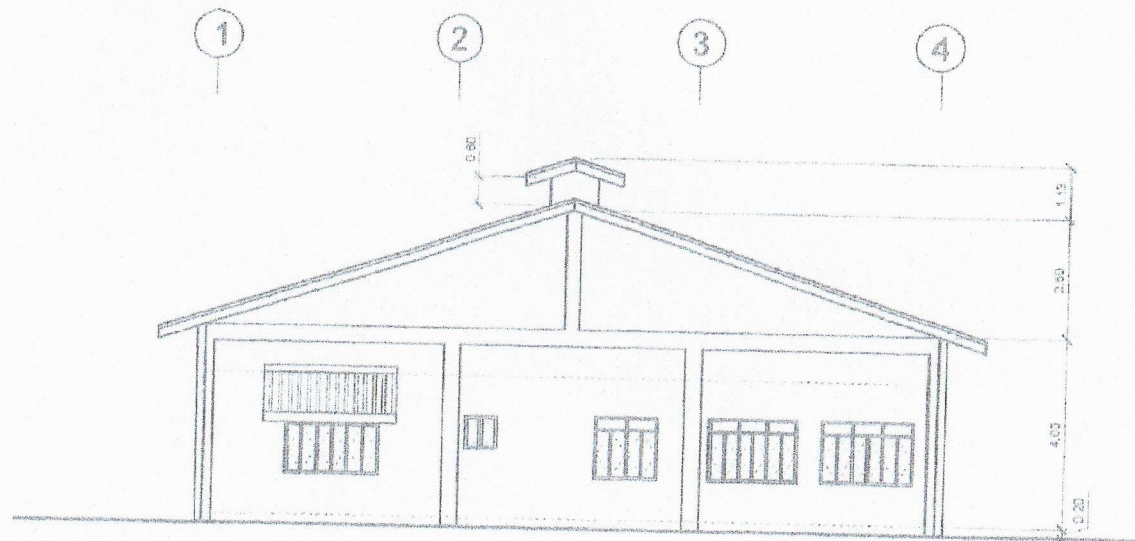


REAR ELEVATION

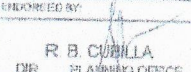
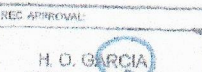
SCALE

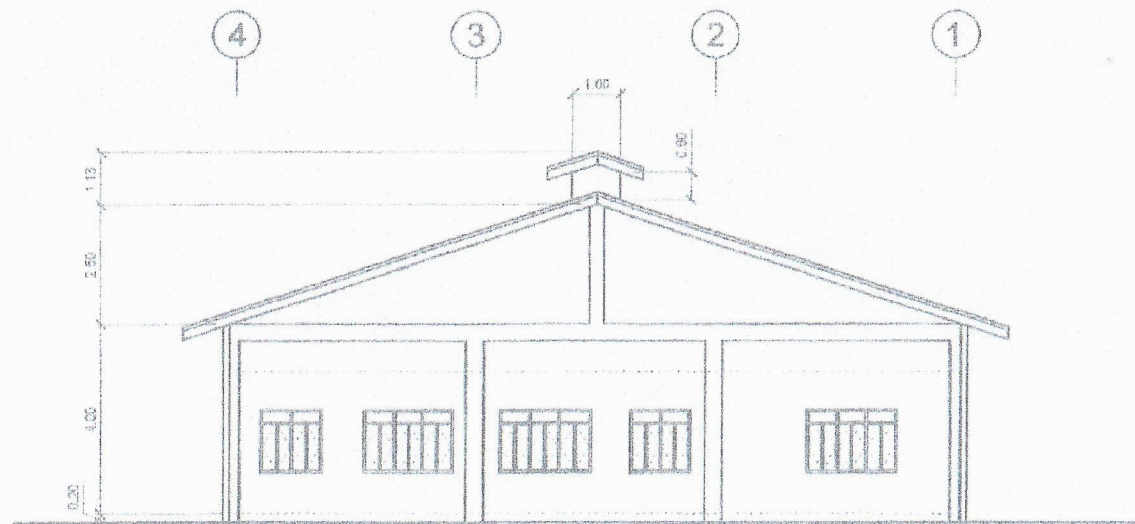
1 : 150 MTS.

PREPARED BY: E. N. RODERO JR.		ENDORSED BY:		REC. APPROVAL:	APPROVED BY:	PROJECT TITLE/LOCATION:	IMPLEMENTING AGENCY:	BY/NO:
G. M. CASTILLO DIR NERDEC	R. B. CUBILLA DIR PLANNING OFFICE	L. L. CERO VPPPD CVSU	H. O. GARCIA VP/ASS CVSU	H. D. ROBLES PRES CVSU	UPGRADING OF NORDEC COFFEE PRODUCT DEVT. FACILITY CVSU, MAIN CAMPUS	CAVITE STATE UNIVERSITY	3	



RIGHT SIDE ELEVATION
SCALE 1 : 150 MTS.

PREPARED BY  E. N. RODEROS JR.	ENDORSED BY  R. B. CUYILLA DIR. PLANNING OFFICE	 L. L. CERO VPPPD CVSU	REC. APPROVAL  H. O. GARCIA VPASS CVSU	APPROVED BY  H. D. RODEROS PRES CVSU	PROJECT TITLE & LOCATION UPGRADING OF NCRDEC COFFEE PRODUCT DEVT. FACILITY CVSU, BAY CAVITUS	IMPLEMENTING AGENCY CAVITE STATE UNIVERSITY	SHEET NO. 4
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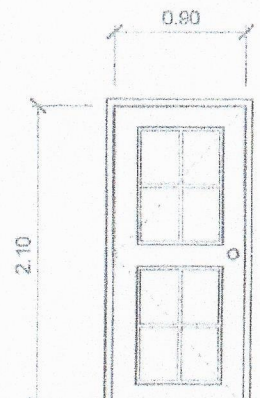
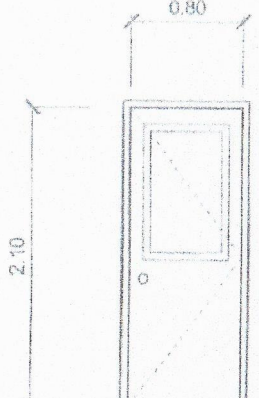
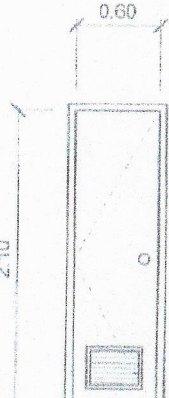
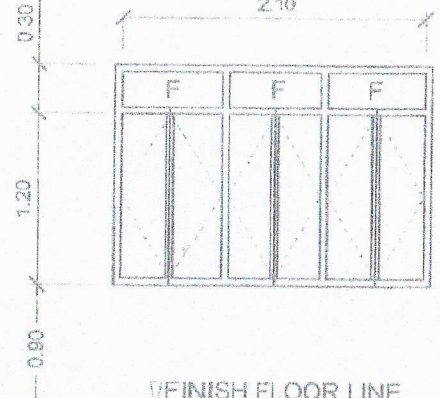
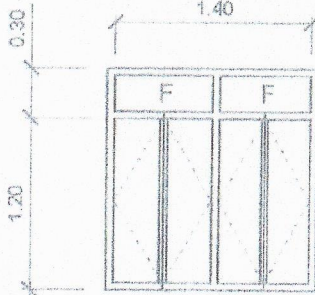
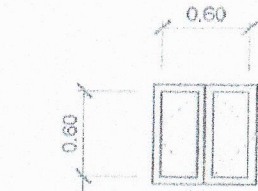


LEFT SIDE ELEVATION

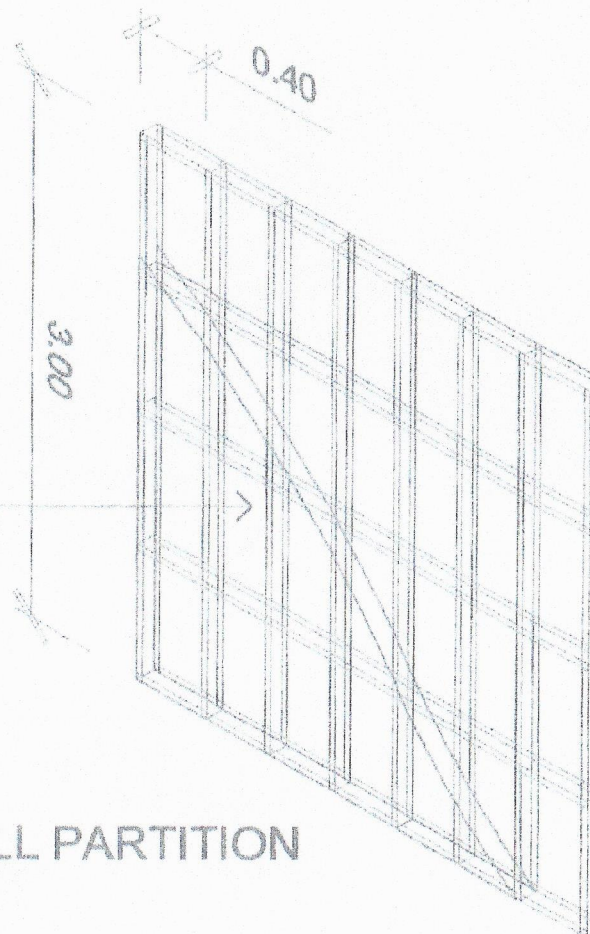
SCALE

1 : 150 MTS.

PREPARED BY E. N. RODRIGOS JR.	ENDORSED BY R. B. CUBILLA	REC. APPROVAL L. L. CERO	ENDORSED BY H. O. GARCIA	PROJECT TITLE/LOCATION UPGRADING OF NORDEC COFFEE PRODUCT DEVT. FACILITY	IMPLEMENTING AGENCY CAVITE STATE UNIVERSITY	SHEET NO. 5
DIR. NORDEC	DIR. PLANNING OFFICE	VPRPD CVSU	VPASS CVSU	PRES. CVSU	CVSU, MAIN CAMPUS	

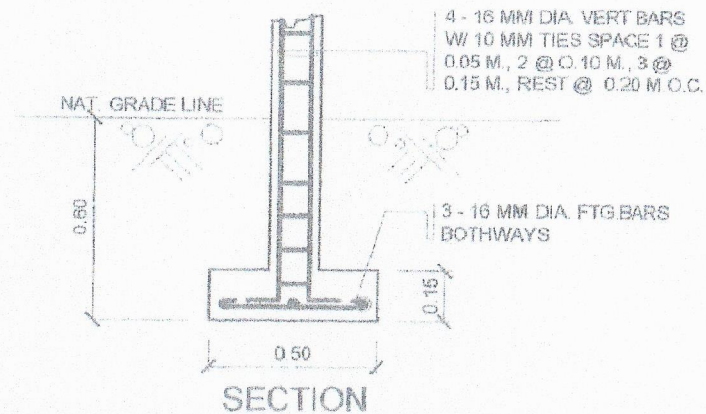
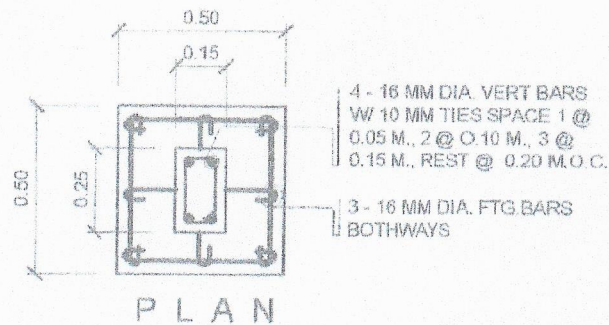
 0.90m. X 2.10m. PANEL DOOR 1 SET D 1	 0.80 X 2.10 FLUSH DOOR W/ $\frac{1}{4}$" THK. CLEAR GLASS VIEW WINDOW, W/ COMPLETE ACCESSORIES 11 SETS D 2	 0.60 X 2.10 FLUSH DOOR W/ COMPLETE ACCESSORIES 1 SET D 3	 ALUMINUM CASEMENT WINDOWS W/ $\frac{1}{4}$" THK. COLORED GLASS & 10MM SQ. BAR GRILLS & COMPLETE ECESSORIES 15 SETS W 1							
FINISH FLOOR LINE										
 ALUMINUM CASEMENT WINDOWS W/ $\frac{1}{4}$" THK. COLORED GLASS & 10MM SQ. BAR GRILLS & COMPLETE ECESSORIES 2 SETS W 2										
 ALUMINUM CASEMENT WINDOWS W/ $\frac{1}{4}$" THK. COLORED GLASS & 10MM SQ. BAR GRILLS & COMPLETE ECESSORIES 1 SET W 3										
FINISH FLOOR LINE										
<table border="1"> <tr> <td>PREPARED BY E. N. RODEROS JR.</td> <td>ENDORSED BY R. B. CUBILA DIR. PLANNING OFFICE</td> <td>REC. APPROVAL L. CERO VPPPD CYSU</td> <td>APPROVED H. O. ROBLES PRES CYSU</td> <td>PROJECT TITLE/LOCATION UPGRADING OF NORDEC COFFEE PRODUCT DEVT. FACILITY CYSU, MAIN CAMPUS</td> <td>IMPLEMENTING AGENCY CAVITE STATE UNIVERSITY</td> <td>SHEET NO. 5</td> </tr> </table>				PREPARED BY E. N. RODEROS JR.	ENDORSED BY R. B. CUBILA DIR. PLANNING OFFICE	REC. APPROVAL L. CERO VPPPD CYSU	APPROVED H. O. ROBLES PRES CYSU	PROJECT TITLE/LOCATION UPGRADING OF NORDEC COFFEE PRODUCT DEVT. FACILITY CYSU, MAIN CAMPUS	IMPLEMENTING AGENCY CAVITE STATE UNIVERSITY	SHEET NO. 5
PREPARED BY E. N. RODEROS JR.	ENDORSED BY R. B. CUBILA DIR. PLANNING OFFICE	REC. APPROVAL L. CERO VPPPD CYSU	APPROVED H. O. ROBLES PRES CYSU	PROJECT TITLE/LOCATION UPGRADING OF NORDEC COFFEE PRODUCT DEVT. FACILITY CYSU, MAIN CAMPUS	IMPLEMENTING AGENCY CAVITE STATE UNIVERSITY	SHEET NO. 5				

¼" THK. MAR. PLYWOOD PARTITION
 (3.85 M. HIGH X ~~5.66 M. LONG~~) ON
 2" X 4" LIGHT METAL FRAMES
 STUDS @ 0.40 M. O. C.



DETAIL OF WALL PARTITION

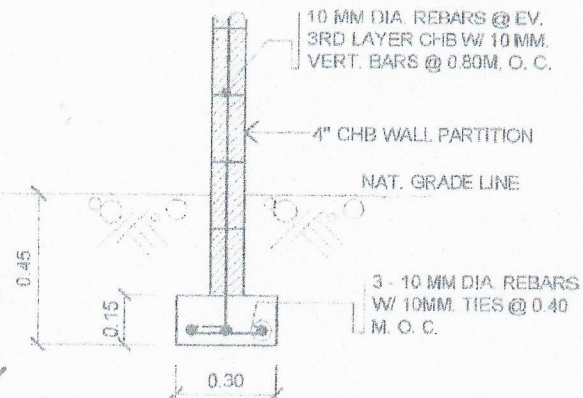
PREPARED BY E. N. RODEROS JR.		ENDORSED BY R. B. CUBILLA DIR. PLANNING OFFICE		REV. APPROVAL H. O. GARCIA VPASS	APPROVED BY H. D. ROBLE PRES	PROJECT TITLE/LOCATION UPGRADING OF NCREDCO COFFEE PRODUCT DEVT. FACILITY CVSU, MAIN CAMPUS	IMPLEMENTING AGENCY CAVITE STATE UNIVERSITY	SHEET NO. 8
END USER G. M. CASTILLO DIR. NCREDCO			L. L. CERO VPPPD CVSU					



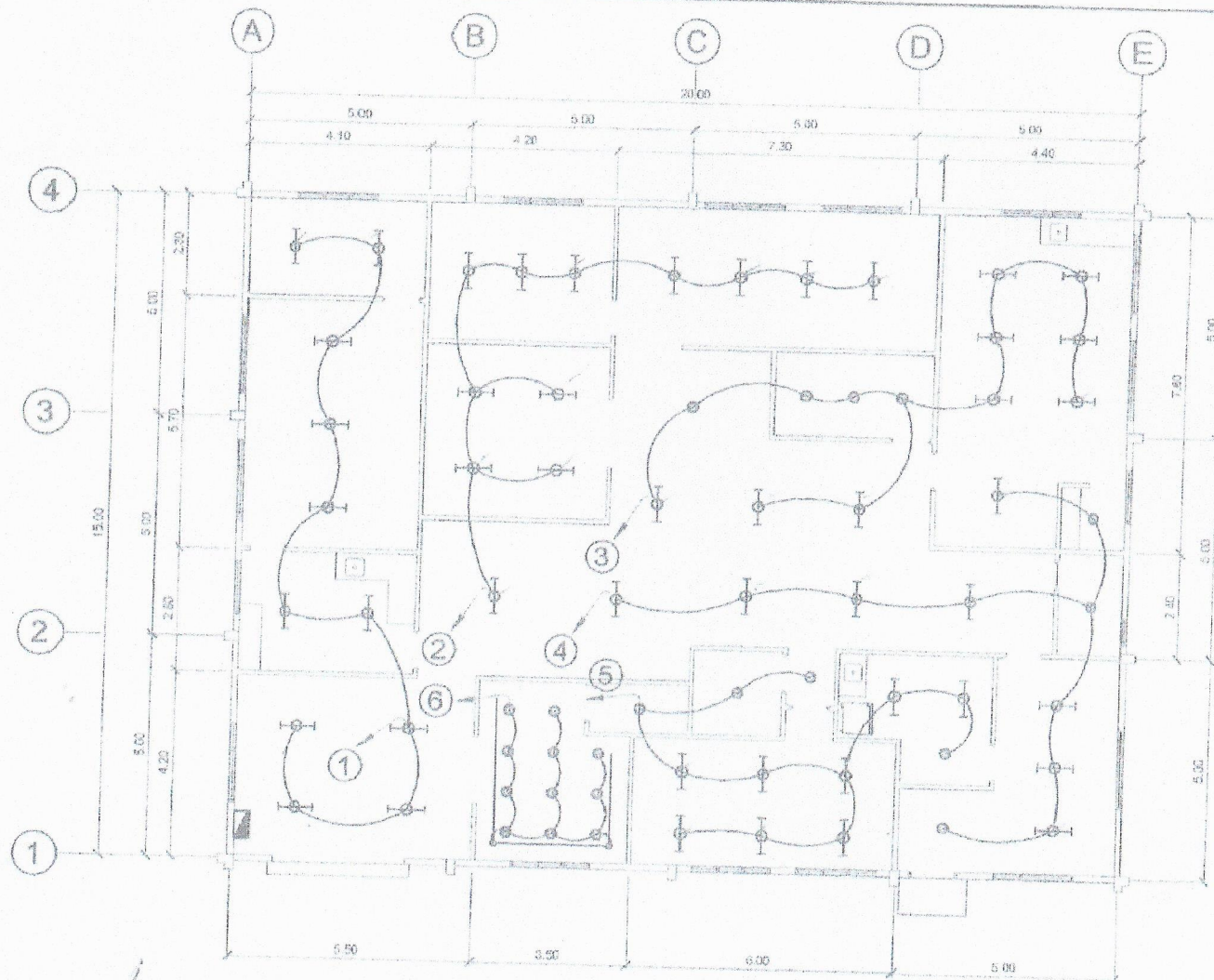
DETAIL OF STIFFENER

SCALE

1 : 20 MTS.



PREPARED BY E. N. RODRIGUES JR.	DESIGNED BY R. B. CUBILLA	REV. L. L. CERO	REC. APPROVAL H. O. GARCIA	APPROVED BY H. D. ROBLES	PROJECT TITLE/LOCATION UPGRADING OF NORDEC COFFEE PRODUCT DEVT. FACILITY CVSU, NAR CAMPUS	IMPLEMENTING AGENCY CAVITE STATE UNIVERSITY	SIT. NO. 9
DIR. NORDEC	DIR. PLANNING OFFICE	VPRD CVSU	VPASS CVSU	VRES CVSU			

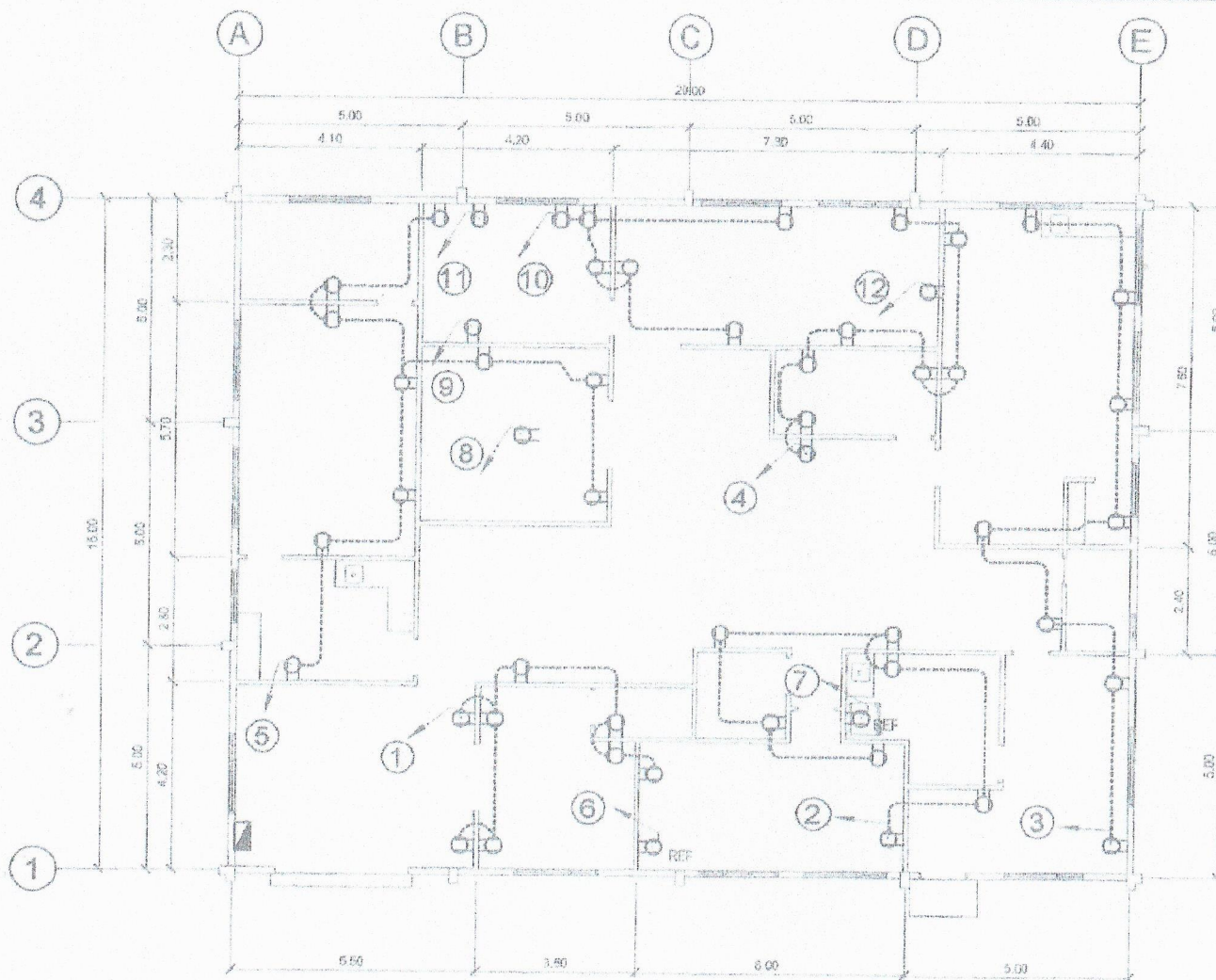


LIGHTING LAYOUT

SCALE

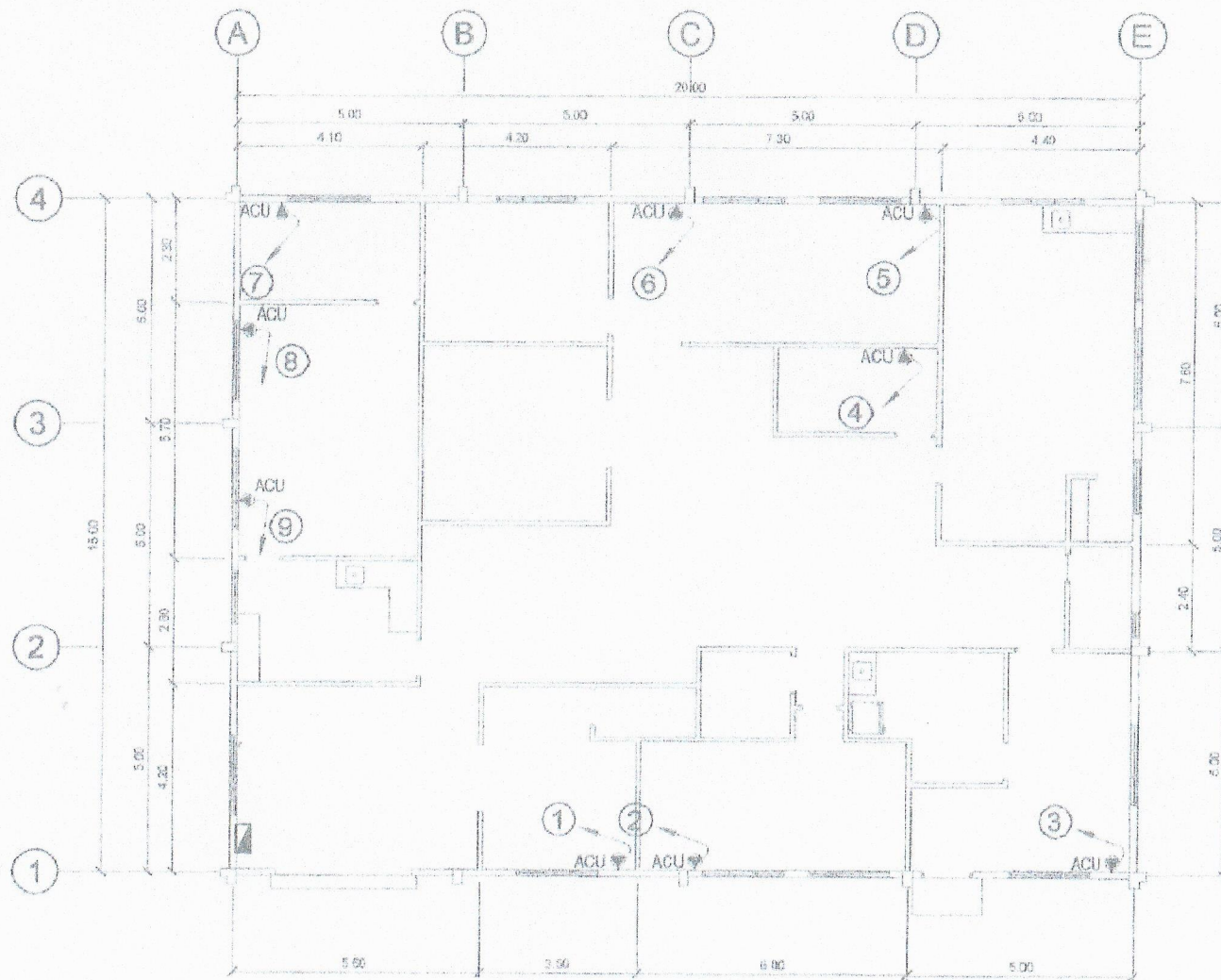
1: 150 MTS.

PREPARED BY E. N. RODEROS JR. DIR. NORDEC	PROFESSIONAL DESIGNER R. P. PERA DIR. PLANNING OFFICE	SEC. APPROVAL L. L. CERO VPPPD CYSU	APPROVED H. O. GARCIA VPASS CYSU	APPROVED H. D. ROBLES PRES. CYSU	PROJECT TITLE/LOCATION UPGRADING OF NORDEC COFFEE PRODUCT DEVT. FACILITY CYSU, MAIN CAMPUS	SPONSORING AGENCY CAVITE STATE UNIVERSITY	SHEET NO. 10
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CONVENIENCE OUTLET LAYOUT
SCALE 1:150 MTS.

PREPARED BY <i>[Signature]</i> E. N. RODEROS JR.	PROFESSIONAL ELECTRICAL ENGINEER <i>[Signature]</i> R. P. PEÑA					PROJECT TITLE/LOCATION UPGRADING OF NORDEC COFFEE PRODUCT DEVT. FACILITY CVSU, MAIN CAMPUS	REPRESENTING AGENCY CAVITE STATE UNIVERSITY	SHEET NO. 11
APPROVED BY <i>[Signature]</i> G. M. CASTILLO DIR. NORDEC	ENDORSED BY <i>[Signature]</i> R. B. CUBILLA DIR. PLANNING OFFICE	<i>[Signature]</i> L. L. CERO VFPD CVSU	<i>[Signature]</i> H. O. GARCIA VPASS CVSU	<i>[Signature]</i> D. ROBLES PRES CVSU				



PREPARED BY E. N. RODRIGOS JR. DIR. NCRDEC	PROFESSIONAL ENGINEER R. P. PENA						
ENDORSED BY G. M. CASTILLO DIR. NCRDEC	ENDORSED BY R. B. CUBILLA DIR. PLANNING OFFICE	REV L. L. CERO VPPPD C/SU	REC. APPROVAL H. O. GARCIA VPASS C/SU	APPROVED BY H. D. ROBLES PRES. C/SU	PROJECT TITLE/LOCATION UPGRADING OF NCRDEC COFFEE PRODUCT DEVT. FACILITY C/SU MAIN CAMPUS	IMPLEMENTING AGENCY CAVITE STATE UNIVERSITY	SHEET NO. 12

SCHEDULE OF LOADS

PANEL : LP Panel
PHASE : 3
VOLTS : 230

CABLE: 3 - 5.5 SQ. MM THHN + G 5.5 SQ MM THHN
CONDUIT: RSC, 25 MM DIA.

MAIN: 50 AT, 100AF, 3P, 230V, 10 KAIC, CB
ENCLOSURE : NEMA 1
MOUNTING: SURFACE

CKT NO	Number of Outlets	CIRCUIT DESCRIPTION	LOAD IN					Circuit Protection		Size of Conductor		Size Of Conduit in MM ϕ	Color Code
			VOLT-AMP	VOLT	AMPERES			Circuit Breaker Rating	SQ. MM THHN	+ SQ. MM THHN(G)			
					AB	BC	CA						
1	11	Lighting Outlet	1100	230	4.78			20AT, 2P,230V, 10 KAIC	2 - 3.5	+	G 2.0	RSC,15	1BLK,1R,G
2	12	Lighting Outlet	1200	230	5.22			20AT, 2P,230V, 10 KAIC	2 - 3.5	+	G 2.0	RSC,15	1BLK,1R,G
3	12	Lighting Outlet	1200	230		5.22		20AT, 2P,230V, 10 KAIC	2 - 3.5	+	G 2.0	RSC,15	1R,1BLU,G
4	12	Lighting Outlet	1200	230		5.22		20AT, 2P,230V, 10 KAIC	2 - 3.5	+	G 2.0	RSC,15	1R,1BLU,G
5	13	Lighting Outlet	1300	230			5.65	20AT, 2P,230V, 10 KAIC	2 - 3.5	+	G 2.0	RSC,15	1BLU,1BLK,G
6	14	Lighting Outlet	1400	230			6.09	20AT, 2P,230V, 10 KAIC	2 - 3.5	+	G 2.0	RSC,15	1BLU,1BLK,G
7		SPARE											
8		SPARE											
		TOTAL	4700	230	10.00	10.43	11.74	50AT, 3P,230V, 10 KAIC	3 - 5.5	+	G 5.5	RSC,25	1BLK,1R,1BLU,G

MAIN FEEDER and CURRENT PROTECTION COMPUTATION:

I_{FL} 20.33 Amperes

use: 3 - 5.5 SQMM THHN + 1 - 5.5 SQMM THHN IN 25 MM DIA. RSC

I_{CB} 20.33 Amperes

use: 50AT, 100AF, 3P, 230V, 10KAIC, CB

This Electrical Design is good only for the above connected loads.
Any additional electrical load connection in the future is not allowed,
Except redesign of electrical load system will be done.

PREPARED BY: E. N. RODEROS JR.	PROFESSIONAL ELECT. ENGR. R. B. CUBILLA	REC. APPROVAL L. C. CERO		APPROVED BY: D. ROBLES	PROJECT TITLE/LOCATION: UPGRADING OF NCRDEC COFFEE PRODUCT DEVT. FACILITY CVSU, MAIN CAMPUS	IMPLEMENTING AGENCY CAVITE STATE UNIVERSITY	SHEET NO. 13
ENDORSED BY: G. M. CASTILLO DIR. NCRDEC	ENDORSED BY: R. B. CUBILLA DIR. PLANNING OFFICE	ENDORSED BY: L. C. CERO VTRPD. CVSU	ENDORSED BY: H. O. GARCIA VPASS. CVSU	ENDORSED BY: D. ROBLES PRES. CVSU			

SCHEDULE OF LOADS

PANEL : PP Panel
 PHASE: 3
 VOLTS: 230

CABLE: 3 - 8.0 SQ. MM THHN + G 5.5 SQ MM THHN
 CONDUIT: RSC, 25 MM DIA.

MAIN: 70 AT, 100AF, 3P, 230V, 10 kAIC, CB
 ENCLOSURE : NEMA 1
 MOUNTING: SURFACE

CKT NO.	Number of Outlets	CIRCUIT DESCRIPTION	LOAD IN			Circuit Protection		Size of Conductor		Size Of Conduit in MMø	Color Code
			VOLT-AMP	VOLT	AMPERES						
					AB	BC	CA	Circuit Breaker Rating	SO. MM THHN + SO. MM THHN(C)		
1	8	Convenience Outlet	1440	230	6.26			20AT, 2P, 230V, 10 KAIC	2 - 3.5 + G 2.0	RSC, 15	1BLK, 1R, G
2	7	Convenience Outlet	1260	230	5.48			20AT, 2P, 230V, 10 KAIC	2 - 3.5 + G 2.0	RSC, 15	1BLK, 1R, G
3	8	Convenience Outlet	1440	230		6.26		20AT, 2P, 230V, 10 KAIC	2 - 3.5 + G 2.0	RSC, 15	1R, 1BLU, G
4	8	Convenience Outlet	1440	230		6.26		20AT, 2P, 230V, 10 KAIC	2 - 3.5 + G 2.0	RSC, 15	1R, 1BLU, G
5	9	Convenience Outlet	1620	230			7.04	20AT, 2P, 230V, 10 KAIC	2 - 3.5 + G 2.0	RSC, 15	1BLU, 1BLK, G
6	1	REF	1000	230			4.35	20AT, 2P, 230V, 10 KAIC	2 - 3.5 + G 2.0	RSC, 15	1BLU, 1BLK, G
7	1	REF	1000	230	4.35			20AT, 2P, 230V, 10 KAIC	2 - 3.5 + G 2.0	RSC, 15	1BLK, 1R, G
8	1	Spray Dryer	1000	230	4.35			20AT, 2P, 230V, 10 KAIC	2 - 3.5 + G 2.0	RSC, 15	1BLK, 1R, G
9	1	Grinder	2000	230		8.70		20AT, 2P, 230V, 10 KAIC	2 - 3.5 + G 2.0	RSC, 15	1R, 1BLU, G
10	1	Bravura Roaster	2000	230		8.70		20AT, 2P, 230V, 10 KAIC	2 - 3.5 + G 2.0	RSC, 15	1R, 1BLU, G
11	1	Laboratory Roaster	2000	230			8.70	20AT, 2P, 230V, 10 KAIC	2 - 3.5 + G 2.0	RSC, 15	1BLU, 1BLK, G
12	1	Tea Bag Packager	2000	230			8.70	20AT, 2P, 230V, 10 KAIC	2 - 3.5 + G 2.0	RSC, 15	1BLU, 1BLK, G
13		SPARE	1000	230	4.35						
14		SPARE	1000	230	4.35						
		TOTAL	20200	230	29.13	29.91	28.78	70AT, 3P, 230V, 10 KAIC	3 - 8.0 + G 5.5	RSC, 25	1BLK, 1R, 1BLU, G

MAIN FEEDER and CURRENT PROTECTION COMPUTATION:

$I_{FE} = \frac{1440 + 1260 + 1440 + 1440 + 1620 + 1000 + 1000 + 1000 + 2000 + 2000 + 2000 + 2000}{230} = 48.96 \text{ Amperes}$

use: 3 - 8.0 SQMM THHN + 1 - 5.5 SQMM THHN IN 25 MM DIA. RSC

$I_{CB} = \frac{1440 + 1260 + 1440 + 1440 + 1620 + 1000 + 1000 + 1000 + 2000 + 2000 + 2000 + 2000}{230} = 62.68 \text{ Amperes}$

use: 70AT, 100AF, 3P, 230V, 10kAIC, CB

This Electrical Design is good only for the above connected loads.
 Any additional electrical load connection in the future is not allowed,
 Except redesign of electrical load system will be done.

PREPARED BY: E. N. RODERO JR.	PROFESSIONAL ELECTRICIAN: R. P. PIENA	ENDORSED BY: R. B. CUBILLA	REC. APPROVAL: L. L. CERO	APPROVED BY: H. O. GARCIA	PROJECT FILE/LOCATION: UPGRADING OF NCROEC COFFEE PRODUCT DEVT. FACILITY	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	2017 001
DIR. NCROEC	DIR. PLANNING OFFICE	VPSPD CAVSU	VPASS CAVSU	PRES CAVSU	CAVSU MAIN CAMPUS		14

SCHEDULE OF LOADS

PANEL : ACP Panel
 PHASE: 3
 VOLTS: 230

CABLE: 3 - 14 SQ. MM THHN + G 5.5 SQ MM THHN
 CONDUIT: RSC, 25 MM DIA.

MAIN: 90 AT, 100AF, 3P, 230V, 10 KAIC, CB
 ENCLOSURE: NEMA 1
 MOUNTING: SURFACE

CKT NO.	Number of Outlets	CIRCUIT DESCRIPTION	LOAD IN					Circuit Protection	Size of Conductor		Size Of Conduit In MM #	Color Code
			VOLT-AMP	VOLT	AMPERES				Circuit Breaker Rating	SQ. MM THHN		
					AB	BC	CA					
1	1	Split Type ACU 1.5TR	2200	230	10.00			30AT, 2P,230V, 10 KAIC	2 - 5.5	+ G 2.0	RSC,15	1BLK,1R,G
2	1	Split Type ACU 1.5TR	2200	230	10.00			30AT, 2P,230V, 10 KAIC	2 - 5.5	+ G 2.0	RSC,15	1BLK,1R,G
3	1	Split Type ACU 1.5TR	2200	230		10.00		30AT, 2P,230V, 10 KAIC	2 - 5.5	+ G 2.0	RSC,15	1R,1BLU,G
4	1	Split Type ACU 1.5TR	2200	230		10.00		30AT, 2P,230V, 10 KAIC	2 - 5.5	+ G 2.0	RSC,15	1R,1BLU,G
5	1	Split Type ACU 1.5TR	2200	230			10.00	30AT, 2P,230V, 10 KAIC	2 - 5.5	+ G 2.0	RSC,15	1BLU,1BLK,G
6	1	Split Type ACU 1.5TR	2200	230			10.00	30AT, 2P,230V, 10 KAIC	2 - 5.5	+ G 2.0	RSC,15	1BLU,1BLK,G
7	1	Split Type ACU 1.5TR	2200	230	10.00			30AT, 2P,230V, 10 KAIC	2 - 5.5	+ G 2.0	RSC,15	1BLK,1R,G
8	1	Split Type ACU 1.5TR	2200	230		10.00		30AT, 2P,230V, 10 KAIC	2 - 5.5	+ G 2.0	RSC,15	1R,1BLU,G
9	1	Split Type ACU 1.5TR	2200	230			10.00	30AT, 2P,230V, 10 KAIC	2 - 5.5	+ G 2.0	RSC,15	1BLU,1BLK,G
10		SPARE										
		TOTAL	19800	230	30.00	30.00	30,00	90AT, 3P,230V, 10 KAIC	3 - 14	+ G 5.5	RSC,25	1BLK,1R,1BLU,G

MAIN FEEDER and CURRENT PROTECTION COMPUTATION:

$$I_{FL} = \frac{19800}{230} = 86.1 \text{ Amperes}$$

use: 3 - 14 SQMM THHN + 1 - 5.5 SQMM THHN IN 25 MM DIA. RSC

$$I_{CB} = \frac{19800}{230} = 86.1 \text{ Amperes}$$

use: 90AT, 100AF, 3P, 230V, 10KAIC, CB

This Electrical Design is good only for the above connected loads.
 Any additional electrical load connection in the future is not allowed,
 Except redesign of electrical load system will be done.

PREPARED BY: E. N. RODEROSUR	PROFESSIONAL ELECTR. ENGR. R. P. PERA								
END USER: G. M. CASTILLO DIR. HORDEC	ENDORSED BY: R. B. CUBILLA DIR. PLANNING OFFICE	RSC APPROVAL: L. C. CERO VPPPD CVSU	APPROVED BY: H. O. GARCIA VPASS	PROJECT TITLE/LOCATION: UPGRADING OF NCRDEC COFFEE PRODUCT DEVT. FACILITY CVDJ, MARI CALIBRE	ISSUING AGENCY: CAVITE STATE UNIVERSITY	IS			

SCHEDULE OF LOADS

PANEL : MDP Panel			CABLE: 3 - 30.0 SQ. MM THHN + G 8.0 SQ MM THHN					MAIN: 150 AT, 225AF, 3P, 230V, 15 KAIC,CB					
PHASE: 3			CONDUIT: RSC, 25 MM DIA.					ENCLOSURE : NEMA 1					
VOLTS: 230								MOUNTING: SURFACE					
CKT NO.	PANEL CODE	PANEL DESCRIPTION	LOAD IN					Circuit Protection	Size of Conductor		Size Of Conduit in MMø	Color Code	
			VOLT-AMP	VOLT	AMPERES				Circuit Breaker Rating	SQ. MM THHN			+ SQ. MM THHN(G)
					AB	BC	CA						
1	LP	Lighting Panel	4700	230	10.00	10.43	11.74	50AT, 3P,230V, 10 KAC	3 - 5.5	+	G 5.5	RSC,25	1BLK,1R,1BLU,G
2	AC	Air Conditioning Panel	19800	230	30.00	30.00	30.00	90AT, 3P,230V, 10 KAIC	3 - 14	+	G 5.5	RSC,25	1BLK,1R,1BLU,G
3	PP	Power Panel	20200	230	29.13	29.91	28.78	70AT, 3P,230V, 10 KAIC	3 - 8.0	+	G 5.5	RSC,25	1BLK,1R,1BLU,G
4		SPARE											
		TOTAL	44700	230	69.13	70.35	70.52	150AT, 3P,230V, 15 KAIC	3 - 30.0	+	G 8.0	RSC, 40	1BLK,1R,1BLU,G

MAIN FEEDER and CURRENT PROTECTION COMPUTATION

$$I_{\mu} = \frac{44700}{230} = 122.14 \text{ Amperes}$$

use: 3 - 30 SQMM THHN + 1 - 8.0 SQMM THHN IN 40 MM DIA. RSC

$$I_{cb} = \frac{44700}{230} = 122.14 \text{ Amperes}$$

use: 150AT, 225AF, 3P, 230V, 15KAIC, CB

This Electrical Design is good only for the above connected loads.
Any additional electrical load connection in the future is not allowed,
Except redesign of electrical load system will be done.

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ENDORSED BY:		PROJECT TITLE, LOCATION	
R. B. CUBILLA DIR. PLANNING OFFICE		UPGRADING OF NCRCDEC COFFEE PRODUCT DEVT. FACILITY	
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