LOAD SCHEDULE

PANEL: MAIN DISTRIBUTION PANEL (MDP)
MOUNTING: FLUSH
ENCLOSURE: NEMA-1 GAUGE 16

LOCATION: POWER ROOM
MAIN: 75AT/100AF, 2P, 22KAIC, BOLT-ON
SYSTEM: 230V, SINGLE PHASE, 60Hz WITH GROUNDING BUS BAR

CKT. NO.	LOAD DISCRIPTION	A	V	VA	WIRE SIZE THHN/THWN	CONDUIT PVC MMØ	CB RATING AT	AF	P	KAIC	LOCATION
1	DISTRIBUTION PANEL (DP)	69.74	230	16040	2-22MM² + 1-8.0MM² (G)	25	75	100	2	22	POWER RM.
2	MAIN EMERGENCY PANEL (MEP)	167.28	230	38475	2-60MM² + 1-30MM² (G)	50	160	250	2	36	RADAR TRANSMITTER RM.
TOTAL		237.02	230	54515	2-80MM² + 1-38MM² (G)	50	175	250	2	50	

FEEDER SIZE COMPUTATION:
IT = (237.02A X 65% D.F.) + 25%(12) = 137.82A
PROVIDE: 2-80MM² + 1-38MM² THHN/THWN WIRE @ 50MMØ PVC PIPE

CIRCUIT BREAKER COMPUTATION:
IT = (237.02A X 65% D.F.) - (12A) + 250%(12A) = 172.06A
PROVIDE: 1-175AT, 250AF, 2P, 1PHASE, 50KAIC, BOLT ON

TRANSFORMER RATING COMPUTATION:
KVA = (E X I)/1000
= (230V X 154.06A)/1000
KVA = 35.43KVA

PROVIDE:
37.5KVA, 13.2KV/230V, SINGLE PHASE, 60Hz
POLE MOUNTED DISTRIBUTION TRANSFORMER

PANEL: MAIN EMERGENCY PANEL (MEP)
MOUNTING: FLUSH
ENCLOSURE: NEMA-1 GAUGE 16

LOCATION: POWER ROOM
MAIN: 160AT/250AF, 2P, 22KAIC, BOLT-ON
SYSTEM: 230V, SINGLE PHASE, 60Hz WITH GROUNDING BUS BAR

CKT. NO.	LOAD DISCRIPTION	A	V	VA	WIRE SIZE THHN/THWN	CONDUIT PVC MMØ	CB RATING AT	AF	P	KAIC	LOCATION
1	EMERGENCY PANEL (EP)	80.33	230	18475	2-30MM² + 1-14MM² (G)	32	100	100	2	22	POWER RM.
2	20KVA UPS FOR RADAR EMERGENCY PANEL BOARD (REP)	86.96	230	20000	2-22MM² + 1-8.0MM² (G)	40	100	100	2	22	RADAR TRANSMITTER RM.
TOTAL		167.28	230	38475	2-60MM² + 1-30MM² (G)	50	160	250	2	32	

FEEDER SIZE COMPUTATION:
IT = (167.28A X 80% D.F.) + 25%(12) = 137.82A
PROVIDE: 2-60MM² + 1-30MM² THHN/THWN WIRE @ 50MMØ PVC PIPE

CIRCUIT BREAKER COMPUTATION:
IT = (167.28A X 80% D.F.) - (12A) + 250%(12A) = 151.82A
PROVIDE: 1-160AT, 250AF, 2P, 1PHASE, 22KAIC, BOLT ON

GENERATOR SET COMPUTATION:
KW = KVA X P.F. (80%)
= 38.475KVA X 80%
KW = 30.78KVA

PROVIDE:
30KW, 230V, SINGLE PHASE, 80% P.F. 60Hz
PAD MOUNTED DIESEL ENGINE GEN. SET

PANEL: DISTRIBUTION PANEL (DP)
MOUNTING: FLUSH
ENCLOSURE: NEMA-1 GAUGE 16

LOCATION: POWER ROOM
MAIN: 75AT/100AF, 2P, 22KAIC, BOLT-ON
SYSTEM: 230V, SINGLE PHASE, 60Hz WITH GROUNDING BUS BAR

CKT. NO.	LOAD DISCRIPTION	A	V	VA	WIRE SIZE THHN/THWN	CONDUIT PVC MMØ	CB RATING AT	AF	P	KAIC	LOCATION
1	LIGHTING OUTLET (CKT. NO.3 OF EXISTING PDB))	0.78	230	180	2-3.5MM² + 1-2.0MM² (G)	15	20	50	2	10	STOCK RM., POL PRODUCTS, PANTRY, CR, QUARTERS
2	CONVENIENCE OUTLET (5-180W)	6.52	230	1500	2-3.5MM² + 1-2.0MM² (G)	15	20	50	2	10	STOCK RM., PANTRY, QUARTERS, RADIO COMM. RM.
3	CONVENIENCE OUTLET (CKT. NO.6 OF EXISTING PDB)	5.48	230	1260	2-3.5MM² + 1-2.0MM² (G)	15	20	50	2	10	RADAR TOWER LOBBY (GF TO 4TH FLOOR)
4	ACU (CKT. NO.9 OF EXISTING PDB)	10.00	230	2300	2-5.5MM² + 1-3.5MM² (G)	15	30	50	2	10	OLD RADAR BUILDING
5	ACU (CKT. NO.10 OF EXISTING PDB)	10.00	230	2300	2-5.5MM² + 1-3.5MM² (G)	15	30	50	2	10	OLD RADAR BUILDING
6	ACU (CKT. NO.11 OF EXISTING PDB)	10.00	230	2300	2-5.5MM² + 1-3.5MM² (G)	15	30	50	2	10	OLD RADAR BUILDING
7	ACU (CKT. NO.12 OF EXISTING PDB)	10.00	230	2300	2-5.5MM² + 1-3.5MM² (G)	15	30	50	2	10	RADAR/WORK STATION RM.
8	EXHAUST FAN (CKT. NO.14 OF EXISTING PDB)	3.91	230	900	2-3.5MM² + 1-2.0MM² (G)	15	20	50	2	10	POWER ROOM
9	SPARE	6.52	230	1500	2-3.5MM² + 1-2.0MM² (G)	15	20	50	2	10	
10	SPARE	6.52	230	1500	2-3.5MM² + 1-2.0MM² (G)	15	20	50	2	10	
TOTAL		69.74	230	16040	2-22MM² + 1-8.0MM² (G)	25	75	100	2	22	

FEEDER SIZE COMPUTATION:
IT = (69.74A X 65% D.F.) + 25%(10) = 47.83A
PROVIDE: 2-22MM² + 1-8.0MM² THHN/THWN WIRE @ 25MMØ PVC PIPE

CIRCUIT BREAKER COMPUTATION:
IT = (69.74A X 65% D.F.) - (10A) + 250%(10A) = 60.33A
PROVIDE: 1-75AT, 100AF, 2P, 1PHASE, 22KAIC, BOLT ON

PANEL: EMERGENCY PANEL (EP)
MOUNTING: FLUSH
ENCLOSURE: NEMA-1 GAUGE 16

LOCATION: POWER ROOM
MAIN: 100AT/100AF, 2P, 22KAIC, BOLT-ON
SYSTEM: 230V, SINGLE PHASE, 60Hz WITH GROUNDING BUS BAR

CKT. NO.	LOAD DISCRIPTION	A	V	VA	WIRE SIZE THHN/THWN	CONDUIT PVC MMØ	CB RATING AT	AF	P	KAIC	LOCATION
1	LIGHTING OUTLET (5-36W, 1-18W LED PANEL)	1.33	230	306	2-3.5MM² + 1-2.0MM² (G)	15	20	50	2	10	MAIN STAIR
2	LIGHTING OUTLET (17-36W, 4-18W LED PANEL, 5-13W LED BULB)	3.26	230	749	2-3.5MM² + 1-2.0MM² (G)	15	20	50	2	10	HALLWAY, LOBBY (GF-5F), WIRE CHASE
3	LIGHTING OUTLET (4-50W LED FLOODLIGHT)	0.87	230	200	2-3.5MM² + 1-2.0MM² (G)	15	20	50	2	10	ROOF DECK
4	LIGHTING OUTLET (CKT. NO.1 & CKT. NO.4 OF EXISTING PDB)	2.00	230	460	2-3.5MM² + 1-2.0MM² (G)	15	20	50	2	10	PASSAGE WAY & POWER ROOM (OLD RADAR BLDG.)
5	LIGHTING OUTLET (CKT. NO.2 OF EXISTING PDB)	1.30	230	300	2-3.5MM² + 1-2.0MM² (G)	15	20	50	2	10	RADIO RM., RADAR STN. RM., WAITING AREA, OBSERVATION AREA
6	CONVENIENCE OUTLET (5-180W)	7.04	230	1620	2-3.5MM² + 1-2.0MM² (G)	15	20	50	2	10	5TH FLOOR
7	CONVENIENCE OUTLET (CKT. NO.5 OF EXISTING PDB)	5.48	230	1260	2-3.5MM² + 1-2.0MM² (G)	15	20	50	2	10	RADIO RM., RADAR STN. RM., WAITING AREA, OLD RADAR BLDG.
8	CONVENIENCE OUTLET (CKT. NO.7 OF EXISTING PDB)	5.48	230	1260	2-3.5MM² + 1-2.0MM² (G)	15	20	50	2	10	POWER ROOM, POL PRODUCTS RM., OBSERVATION AREA
9	1.5HP AC/U (CKT. NO.8 OF EXISTING PDB)	10.00	230	2300	2-3.5MM² + 1-2.0MM² (G)	15	30	50	2	10	RADIO COMM. RM.
10	2HP A/U (WINDOW TYPE)	12.00	230	2760	2-5.5MM² + 1-3.5MM² (G)	15	30	50	2	10	5TH FLOOR
11	2HP A/U (WINDOW TYPE)		230		2-5.5MM² + 1-3.5MM² (G)	15	30	50	2	10	5TH FLOOR
12	2HP A/U (WINDOW TYPE)	12.00	230	2760	2-5.5MM² + 1-3.5MM² (G)	15	30	50	2	10	5TH FLOOR
13	2HP A/U (WINDOW TYPE)		230		2-5.5MM² + 1-3.5MM² (G)	15	30	50	2	10	5TH FLOOR
14	FIRE ALARM CONTROL PANEL	6.52	230	1500	2-3.5MM² + 1-2.0MM² (G)	15	20	50	2	10	POWER RM.
15	SPARE	6.52	230	1500	2-3.5MM² + 1-2.0MM² (G)	15	20	50	2	10	
16	SPARE	6.52	230	1500		15	20	50	2	10	
TOTAL		80.33	230	18475	2-30MM² + 1-14MM²	32	100	100	2	22	

FEEDER SIZE COMPUTATION:
IT = (80.33A X 80% D.F.) + 25%(12) = 67.26A
PROVIDE: 2-30MM² + 1-14MM² THHN/THWN WIRE @ 32MMØ PVC PIPE

CIRCUIT BREAKER COMPUTATION:
IT = (80.33A X 80% D.F.) - (12A) + 250%(12A) = 82.26A
PROVIDE: 1-100AT, 100AF, 2P, 1PHASE, 22KAIC, BOLT ON

NOTE: CKT. NO. 10 & 11 ARE IN MANUAL TRANSFER SWITCH (MTS)
CKT. NO. 12 & 13 ARE IN MANUAL TRANSFER SWITCH (MTS)

OWNER	ARCHITECT/ENGINEER	ENGINEER	PROJECT TITLE	SHEET CONTENT	DRAWN BY	REVISION	SHEET NO.
VICENTE B. MALANO, Ph.D. ADMINISTRATOR	LICENSE NO. / VALID UNTIL PTR NO. / DATE ISSUED	LICENSE NO. / VALID UNTIL PTR NO. / DATE ISSUED	**REHABILITATION/REPAIR OF BASCO AND TOWER BUILDING** LOCATION: BRGY. TUKON, BASCO, BATANES	LOAD SCHEDULE	ANGJ CHECKED BY: DSO DATE	DATE:	E-4