

Panelboard: <b>MDP</b>		Location: <b>GF EE Room</b>		Mounting: <b>SURFACE</b>												
Voltage System: <b>230V, 3-PHASE, 3-WIRE + G, 60Hz</b>		Enclosure: <b>NEMA 1</b>														
PNL No.	PANELBOARD DESIGNATION	Qty. of C.O.	Qty. of L.O.	Qty. (Other Loads)	VOLT-AMPS	VOLTS	PHASE / LINE CURRENT				CIRCUIT BREAKER			No. OF WIRE & SIZE	CONDUIT (mmø)	
							ØAB	ØCA	ØBC	ØABC	AT	AF	P			CONDUCTOR (mm <sup>2</sup> )
1	DP-1	129	236	30	78314	230	62.94	67.47	63.18	84.82	250	250	3	3- 125mm <sup>2</sup> THHN + 1- 22mm <sup>2</sup> THHN G	80	
2	DP-2	127	229	47	93799	230	87.71	87.79	85.42	84.82	300	400	3	3- 200mm <sup>2</sup> THHN + 1- 22mm <sup>2</sup> THHN G	80	
3	DP-3	166	297	61	121514	230	102.17	101.97	96.55	131.43	450	600	3	2 x [3- 100mm <sup>2</sup> THHN + 1- 14mm <sup>2</sup> THHN G]	2 x 65	
4	ELEVATOR			1	7875	230				19.77	50	100	3	3- 5.5mm <sup>2</sup> THHN + 1- 5.5mm <sup>2</sup> THHN G	20	
5	Pump-2 x 7.5 HP			1	17528	230				44.00	80	100	3	3- 14mm <sup>2</sup> THHN + 1- 5.5mm <sup>2</sup> THHN G	32	
<b>FEEDER/ MAIN OCP</b>		<b>422</b>	<b>762</b>	<b>139</b>	<b>319030</b>	<b>230</b>	<b>252.82</b>	<b>257.23</b>	<b>245.15</b>	<b>364.83</b>	<b>800</b>	<b>800</b>	<b>3</b>	<b>3 x [3- 150mm<sup>2</sup> THHN + 1- 22mm<sup>2</sup> THHN G]</b>	<b>3 x 80</b>	
					I(total)wire = (539.95A - 184.29A + 1.732 x 257.23A) x 0.70 D.F. + 0.25 = 588.45 A											
					V R4 R7A =											
					I(total)ocp = (539.95A - 184.28A + 1.732 x 257.23A) x 0.70 D.F. + 0.75 = 630.86 A											
					x 84.82A =											
					KVA (total) = 1.732 x 588.45A x 230V/ 1000 = 234.42 KVA											
					USE: Standby AC Generator, 300KVA, 3-Phase, 230Vac, 60 Hz											

Panelboard: <b>DP-FP</b>		Location: <b>GF EE Room</b>		Mounting: <b>SURFACE</b>												
Voltage System: <b>230V, 3-PHASE, 3-WIRE + G, 60Hz</b>		Enclosure: <b>NEMA 1</b>														
PNL No.	PANELBOARD DESIGNATION	Qty. of C.O.	Qty. of L.O.	Qty. (Other Loads)	VOLT-AMPS	VOLTS	PHASE / LINE CURRENT				CIRCUIT BREAKER			No. OF WIRE & SIZE	CONDUIT (mmø)	
							ØAB	ØCA	ØBC	ØABC	AT	AF	P			CONDUCTOR (mm <sup>2</sup> )
1	FP-1			1	68750	230				172.58	1000	1000	3	3- 100mm <sup>2</sup> THHN + 14mm <sup>2</sup> THHN G	65	
2	JP-1	129	0	0	4669	230				11.70	20	100	3	3- 3.5mm <sup>2</sup> THHN + 3.5mm <sup>2</sup> THHN G	15	
3	SPACE															
<b>FEEDER/ MAIN OCP</b>		<b>129</b>	<b>0</b>	<b>1</b>	<b>73413</b>	<b>230</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>184.29</b>	<b>1200</b>	<b>1200</b>	<b>3</b>	<b>3- 125mm<sup>2</sup> THHN + 1- 22mm<sup>2</sup> THHN G</b>	<b>80</b>	
					I(total)wire = 179.31A + 0.25 x 172.58A = 227.43 A											
					I(total)ocp = 6 x 172.58A + 6.73A = 1047.20 A											

Panelboard: <b>DP-1</b>		Location: <b>GF EE Room</b>		Mounting: <b>SURFACE</b>												
Voltage System: <b>230V, 3-PHASE, 3-WIRE + G, 60Hz</b>		Enclosure: <b>NEMA 1</b>														
PNL No.	PANELBOARD DESIGNATION	Qty. of C.O.	Qty. of L.O.	Qty. (Other Loads)	VOLT-AMPS	VOLTS	PHASE / LINE CURRENT				CIRCUIT BREAKER			No. OF WIRE & SIZE	CONDUIT (mmø)	
							ØAB	ØCA	ØBC	ØABC	AT	AF	P			CONDUCTOR (mm <sup>2</sup> )
1	LP-1	0	236	8	7472	230	10.26	11.80	10.42	0.00	100	100	3	3- 30mm <sup>2</sup> THHN + 1- 8.0mm <sup>2</sup> THHN G	40	
2	PP-1	129	0	0	34710	230	49.35	52.17	49.39	0.00	125	250	3	3- 38mm <sup>2</sup> THHN + 1- 14mm <sup>2</sup> THHN G	50	
3	PPM-1	0	0	22	36132	230	3.33	3.49	3.37	84.82	125	250	3	3- 30mm <sup>2</sup> THHN + 1- 8.0mm <sup>2</sup> THHN G	40	
4	SPARE															
<b>FEEDER/ MAIN OCP</b>		<b>129</b>	<b>236</b>	<b>30</b>	<b>78314</b>	<b>230</b>	<b>62.94</b>	<b>67.47</b>	<b>63.18</b>	<b>84.82</b>	<b>250</b>	<b>250</b>	<b>3</b>	<b>3- 125mm<sup>2</sup> THHN + 1- 22mm<sup>2</sup> THHN G</b>	<b>80</b>	
					I(total)wire = 84.82A + 0.25 x 42.41A + 1.732 x 67.47A = 212.28 A											
					I(total)ocp = 84.82A + 0.75 x 42.41A + 1.732 x 67.47A = 233.48 A											

Panelboard: <b>LP-1</b>		Location: <b>GF EE Room</b>		Mounting: <b>SURFACE</b>												
Voltage System: <b>230V, 3-PHASE, 3-WIRE + G, 60Hz</b>		Enclosure: <b>NEMA 1</b>														
CKT. No.	LOAD DESCRIPTION	Qty. of C.O.	Qty. of L.O.	Qty. (Other Loads)	VOLT-AMPS	VOLTS	PHASE / LINE CURRENT				CIRCUIT BREAKER			No. OF WIRE & SIZE	CONDUIT (mmø)	
							ØAB	ØCA	ØBC	ØABC	AT	AF	P			CONDUCTOR (mm <sup>2</sup> )
1	L.O.			98	1419	230	6.17				20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
2	L.O. (Stairs)			17	337	230	1.46				20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
3	L.O.			36	1525	230		6.63			20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
4	L.O.			27	1190	230		5.17			20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
5	L.O.			38	1321	230			5.75		20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
6	L.O.			30	1076	230			4.68		20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
7	L.O.			50	604	230	2.63				20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
8	SPARE			0	0	230	0.00				20	100	2			
9	SPARE			0	0	230			0.00		20	100	2			
10	SPARE			0	0	230					20	100	2			
<b>FEEDER/ MAIN OCP</b>		<b>0</b>	<b>236</b>	<b>1</b>	<b>7472</b>	<b>230</b>	<b>10.26</b>	<b>11.80</b>	<b>10.42</b>	<b>0.00</b>	<b>100</b>	<b>100</b>	<b>3</b>	<b>3- 30mm<sup>2</sup> THHN + 1- 8.0mm<sup>2</sup> THHN G</b>	<b>40</b>	
					I(total) = 0.00A + 1.25 x 1.732 x 11.80A = 25.55 A											
					Load Computation:											
					General Lighting: 1436 sq.m x 24 VA/ sq.m = 34464 VA											
					I(total) = 34,464 VA/ (1.732 x 230 Vac) = 86.51 A											

**A**  
LOAD SCHEDULE - 1  
SCALE N T S

PANEL : <b>PP-1</b>		Location: <b>GF EE Room</b>		Mounting: <b>SURFACE</b>												
SYSTEM : <b>230V, 3-PHASE, 3-WIRE + G, 60Hz</b>		Enclosure: <b>NEMA 1</b>														
CKT. No.	LOAD DESCRIPTION	Qty. of C.O.	Qty. of L.O.	Qty. (Other Loads)	VOLT-AMPS	VOLTS	PHASE / LINE CURRENT				CIRCUIT BREAKER			No. OF WIRE & SIZE	CONDUIT (mmø)	
							ØAB	ØCA	ØBC	ØABC	AT	AF	P			CONDUCTOR (mm <sup>2</sup> )
1	C.O. (Open Air Lobby)	10			1800	230	7.83				20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
2	C.O. (Toilet)	1			1800	230	7.83				20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
3	C.O. - Elevator pump (1HP?)	1			2300	230		10.00			20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
4	C.O. (Dental, Physician, Dental)	11			2200	230		9.57			20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
5	C.O. (Nurse Station, Med. Records, Bed)	11			1980	230			6.61		20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
6	C.O. (Hand Dryer MT)	1			1800	230			7.83		20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
7	C.O. (Hallway, Receiving, Bundy)	10			1800	230	7.83				20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
8	C.O. (GSO Staff)	6			1200	230	5.22				20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
9	C.O. (Outside)	5			900	230		3.91			20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
10	C.O. (Gallery, Reception)	12			2400	230		10.43			20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
11	C.O. (CCTV Room)	4			2000	230			6.70		20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
12	C.O. (PTA, Cashiers)	9			1620	230			7.04		20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
13	C.O. (Hand Dryer FT)	1			1800	230	7.83				20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
14	C.O. (GSO Staff)	5			1000	230	4.35				20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
15	C.O. (Fire Exit)	1			500	230		2.17			20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
16	C.O. (Common Pantry)	1			1500	230		6.52			20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
17	C.O. (Registrar, Pump, EE, Records)	13			2340	230			10.17		20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
18	C.O. (Supply Storage, Property Office)	9			1620	230			7.04		20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
19	C.O. (Outside)	5			900	230	3.91				20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
20	C.O. (Refrigerator, Water dispenser)	2			1050	230	4.57				20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
21	C.O. (Registrar)	11			2200	230		9.57			20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15	
22	SPARE					230			0.00		20	100	2			
<b>FEEDER/ MAIN OCP</b>		<b>129</b>	<b>0</b>	<b>0</b>	<b>34710</b>	<b>230</b>	<b>49.35</b>	<b>52.17</b>	<b>49.39</b>	<b>0.00</b>	<b>125</b>	<b>250</b>	<b>3</b>	<b>3- 38mm<sup>2</sup> THHN + 1- 14mm<sup>2</sup> THHN G</b>	<b>50</b>	
					I(total) = 0.00A + 1.25 x 1.732 x 52.17A = 112.96 A											

PANEL : <b>PPM-1</b>		Location: <b>GF EE Room</b>		Mounting: <b>SURFACE</b>											
SYSTEM : <b>230V, 3-PHASE, 3-WIRE + G, 60Hz</b>		Enclosure: <b>NEMA 1</b>													
CKT. No.	LOAD DESCRIPTION	Qty. of C.O.	Qty. of L.O.	Qty. (Other Loads)	VOLT-AMPS	VOLTS	PHASE / LINE CURRENT				CIRCUIT BREAKER			No. OF WIRE & SIZE	CONDUIT (mmø)
							ØAB	ØCA	ØBC	ØABC	AT	AF	P		
1	ACCU-15TR			1	16894	230			42.41		70	100	3	3- 14mm <sup>2</sup> THHN + 1- 5.5mm <sup>2</sup> THHN G	32
2	ACCU-15TR			1	16894	230			42.41		70	100	3	3- 14mm <sup>2</sup> THHN + 1- 5.5mm <sup>2</sup> THHN G	32
3	FCU-1u@1TR, 1u@1.5TR (Ex Ckt. 8)			2	98	230	0.42				20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15
4	FCU-2u@2.5TR (Ex Ckt. 7)			2	362	230	1.58				20	100	2	2- 3.5mm <sup>2</sup> THHN + 1- 3.5mm <sup>2</sup> THHN G	15
5	TF-1- 1 u														