EXISTING

PANELBOARD SCHEDULE MDP

LOCATION: MECH/ ELEC 121 — FED FROM:

800 A MLO — 120/240 Wye — 3 PH 4 W — MOUNT: SURFACE — PANEL ASSEMBLY RATED (KAIC):

CKT	BRKR	POLE	LOAD	A		B		C		LOAD	POLE	BRKR	CKT
1	225 A	2	P/BD P2	14.7	8.1					P/BD L1	2	225 A	2
3						14.7	10.3						4
5	70 A	2	P/BD L2					3.3	4.4	P/BD P1	3	225 A	6
7				2.3	3.4								8
9	60 A	2	SSI-01 ELEC HT #2			5.8	5.9						10
11								5.8	5.8	SSI-02 ELEC HT #2	2	60 A	12
13	--	--	SPACE ONLY	0.0	5.8								14
				34 kVA		37 kVA		19 kVA					
				286 A		306 A		160 A					

PROVIDE NEW SHUNT TRIP CIRCUIT BREAKERS FOR CIRCUITS (9,11) AND (12,14)

Load Classification	Connected Load	Demand Factor	Estimated Demand
INTERIOR LIGHTING	2936 VA	100.00%	2936 VA
EXTERIOR LIGHTING	0 VA	0.00%	0 VA
RECEPTACLES	12600 VA	89.68%	11300 VA
AC / HEAT PUMP	2688 VA	100.00%	2688 VA
ELECTRIC HEAT	46000 VA	100.00%	46000 VA
KITCHEN	0 VA	0.00%	0 VA
MISCELLANEOUS	17270 VA	100.00%	17270 VA

Panel Totals

Total Conn. Load: 91.2 kVA
Total Est. Demand: 90.1 kVA
Total Conn. Current: 219 A
Total Est. Demand... 217 A

SIX MAIN PANELBOARD. NO MAINS AVAILABLE

EXISTING

PANELBOARD SCHEDULE L1

LOCATION: MECH/ ELEC 121 — FED FROM: MDP

225 A MLO — 120/240 Single — 1 PH 3 W — MOUNT: SURFACE — PANEL ASSEMBLY RATED (KAIC):

CKT	BRKR	POLE	LOAD	A		C		LOAD	POLE	BRKR	CKT
1	20 A	1	INTERIOR LIGHTING TRAINING 115	0.7	0.4			LTG RM 101, 102, 103, 104, 106 &...	1	20 A	2
3	20 A	1	LIGHTING RM 121 & 122			0.2	0.3	LIGHTING EVIDENCE RM 120	1	20 A	4
5	20 A	1	LIGHTING RM 117, 118, 119 & 123	0.3	0.6			LIGHTING VEHICLE BAY 116	1	20 A	6
7	20 A	1	EXIT SIGNS			0.0	0.9	LIGHTING VEHICLE BAY 116	1	20 A	8
9	20 A	1	WASHING MACHINE 114	0.2	0.2			REFRIGERATOR 120	1	20 A	10
11	20 A	1	REC 101, 111 & 115			1.6	1.6	REC RM 104, 108, 115, 120 & 122	1	20 A	12
13	20 A	1	REC PROPERTY & EVIDENCE 120	0.4	0.2			GF EWC CORRIDOR 101	1	20 A	14
15	20 A	1	RECEPTACLE MECH/ELEC 121			0.2	1.8	REC RM 101, 103, 117, 118, 119, 12...	1	20 A	16
17	20 A	1	REC EXTERIOR, 109, 112 & 121	0.9	0.7			RECEPTACLES VEHICLE BAYS 116	1	20 A	18
19	20 A	2	WATER HEATER UTILITY RM 114			3.0	0.7	RECEPTACLES VEHICLE BAYS 116	1	20 A	20
21				3.0	0.5			CP-1 CONDENSATE PUMP	1	15 A	22
23	20 A	1	SPARE			0.0	0.0	SPARE	1	20 A	24
25	20 A	1	SPARE	0.0	0.1			DRYER UTILITY RM 114	2	20 A	26
27	20 A	2	DSS-1A & DSS-1B ROOF			0.0	0.1				28
29				0.0	0.0			F-03 BAG & TAG 117	1	20 A	30
				8 kVA		10 kVA					
				68 A		86 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand
INTERIOR LIGHTING	2626 VA	100.00%	2626 VA
EXTERIOR LIGHTING	0 VA	0.00%	0 VA
RECEPTACLES	8460 VA	100.00%	8460 VA
AC / HEAT PUMP	0 VA	0.00%	0 VA
ELECTRIC HEAT	0 VA	0.00%	0 VA
KITCHEN	0 VA	0.00%	0 VA
MISCELLANEOUS	6620 VA	100.00%	6620 VA

Panel Totals

Total Conn. Load: 18.4 kVA
Total Est. Demand: 18.6 kVA
Total Conn. Current: 77 A
Total Est. Demand... 78 A

EXISTING

PANELBOARD SCHEDULE P1

LOCATION: VEHICLE BAYS 116 — FED FROM: MDP

225 A MLO — 120/240 Wye — 3 PH 4 W — MOUNT: SURFACE — PANEL ASSEMBLY RATED (KAIC):

CKT	BRKR	POLE	LOAD	A		B		C		LOAD	POLE	BRKR	CKT
1	20 A	3	F-01	1.1	1.1					F-02	3	20 A	2
3						1.1	1.1						4
5								1.1	1.1				6
7	20 A	2	EX UH	0.0	0.0					EX UH	2	20 A	8
9						0.0	0.0						10
11	20 A	1	OVERHEAD DOOR MOTOR					0.5	0.5	OVERHEAD DOOR MOTOR	1	20 A	12
13	20 A	1	OVERHEAD DOOR MOTOR	0.5	0.5					OVERHEAD DOOR MOTOR	1	20 A	14
15	--	--	HIGH LEG			0.0	0.0			HIGH LEG	--	--	16
17	20 A	1	CORD REEL VEHICLE BAY 116					0.7	0.7	CORD REEL VEHICLE BAY 116	1	20 A	18
19	20 A	3	ERV-01	1.2	0.0					SPACE ONLY	--	--	20
21						1.2	0.0			SPACE ONLY	--	--	22
23								1.2	0.0	SPACE ONLY	--	--	24
25	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	26
27	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	28
29	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	30
31	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	32
33	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	34
35	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	36
37	--	--	SPACE ONLY	0.0	0.0					SPACE ONLY	--	--	38
39	--	--	SPACE ONLY			0.0	0.0			SPACE ONLY	--	--	40
41	--	--	SPACE ONLY					0.0	0.0	SPACE ONLY	--	--	42
				4 kVA		3 kVA		6 kVA					
				37 A		29 A		49 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand
INTERIOR LIGHTING	0 VA	0.00%	0 VA
EXTERIOR LIGHTING	0 VA	0.00%	0 VA
RECEPTACLES	1440 VA	100.00%	1440 VA
AC / HEAT PUMP	0 VA	0.00%	0 VA
ELECTRIC HEAT	0 VA	0.00%	0 VA
KITCHEN	0 VA	0.00%	0 VA
MISCELLANEOUS	8650 VA	100.00%	8650 VA

Panel Totals

Total Conn. Load: 13.7 kVA
Total Est. Demand: 13.7 kVA
Total Conn. Current: 33 A
Total Est. Demand... 33 A

EXISTING

PANELBOARD SCHEDULE L2

LOCATION: MECH/ ELEC 121 — FED FROM: MDP

100 A MLO — 120/240 Single — 1 PH 3 W — MOUNT: SURFACE — PANEL ASSEMBLY RATED (KAIC):

CKT	BRKR	POLE	LOAD	A		C		LOAD	POLE	BRKR	CKT
1	20 A	1	LIGHTING RM 108, 109, 111 & 112	0.9	0.7			CORD REEL VEHICLE BAY 116	1	20 A	2
3	20 A	1	LTG & REC IT/DATA 105			0.6	0.7	CORD REEL VEHICLE BAY 116	1	20 A	4
5	20 A	1	OVERHEAD DOOR MOTOR	0.5	0.5			OVERHEAD DOOR MOTOR	1	20 A	6
7	20 A	1	OVERHEAD DOOR MOTOR			0.5	0.5	OVERHEAD DOOR MOTOR	1	20 A	8
9	20 A	1	REC RM 117 & 118	0.7	0.0			SPARE	1	20 A	10
11	20 A	1	SPARE			0.0	0.0	SPARE	1	20 A	12
				3 kVA		2 kVA					
				28 A		19 A					

Load Classification	Connected Load	Demand Factor	Estimated Demand
INTERIOR LIGHTING	310 VA	100.00%	310 VA
EXTERIOR LIGHTING	0 VA	0.00%	0 VA
RECEPTACLES	2700 VA	100.00%	2700 VA
AC / HEAT PUMP	0 VA	0.00%	0 VA
ELECTRIC HEAT	0 VA	0.00%	0 VA
KITCHEN	0 VA	0.00%	0 VA
MISCELLANEOUS	2000 VA	100.00%	2000 VA

Panel Totals

Total Conn. Load: 5.7 kVA
Total Est. Demand: 5.8 kVA
Total Conn. Current: 24 A
Total Est. Demand... 24 A

EXISTING

PANELBOARD SCHEDULE P2

LOCATION: MECH/ ELEC 121 — FED FROM: MDP

225 A MLO — 120/240 Single — 1 PH 3 W — MOUNT: SURFACE — PANEL ASSEMBLY RATED (KAIC):

CKT	BRKR	POLE	LOAD	A		C		LOAD	POLE	BRKR	CKT
1	20 A	1	BATTERY CHARGER FOR GENSET	0.0	1.2			SSO-02	2	60 A	2
3	60 A	2	SSO-01			1.2	1.2				4
5				1.2	0.7			SSI-01 AHU	2	15 A	6
7	60 A	2	SSI-01 ELEC HT #1			5.8	0.7				8
9				5.8	0.0			SPACE ONLY	--	--	10
11	15 A	2	SS1-02 AHU			0.7	0.0	SPACE ONLY	--	--	12
13				0.7	5.8			SSI-02 ELEC HT #1	2	60 A	14
15	--	--	SPACE ONLY			0.0	5.8				16
17	--	--	SPACE ONLY	0.0	0.0			SPACE ONLY	--	--	18
19	--	--	SPACE ONLY			0.0	0.0	SPACE ONLY	--	--	20
				15 kVA		15 kVA					
				126 A		126 A					

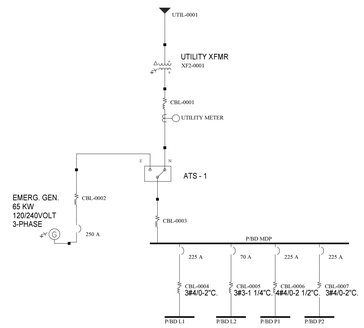
Load Classification	Connected Load	Demand Factor	Estimated Demand
INTERIOR LIGHTING	0 VA	0.00%	0 VA
EXTERIOR LIGHTING	0 VA	0.00%	0 VA
RECEPTACLES	0 VA	0.00%	0 VA
AC / HEAT PUMP	2688 VA	100.00%	2688 VA
ELECTRIC HEAT	23000 VA	100.00%	23000 VA
KITCHEN	0 VA	0.00%	0 VA
MISCELLANEOUS	0 VA	0.00%	0 VA

Panel Totals

Total Conn. Load: 30.3 kVA
Total Est. Demand: 30.3 kVA
Total Conn. Current: 126 A
Total Est. Demand... 126 A

GENERATOR LOAD SHEDDING

THE FOUR NEW ELECTRIC HEATERS ON SSI-01 AND 02 ARE CONNECTED TO SHUNT TRIP CIRCUIT BREAKERS.
PROVIDE AUXILIARY CONTACTS AND RELAYS IN THE EXISTING AUTOMATIC TRANSFER SWITCH THAT WILL SHUNT THE CIRCUIT BREAKERS TO OFF WHEN THE AUTOMATIC TRANSFER SWITCH IS PLACED IN THE EMERGENCY POSITION.



EXISTING ONE-LINE DIAGRAM

ALL INFORMATION ON THIS DIAGRAM IS FROM THE EXISTING 1984 DRAWINGS.

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10-15-2015
PROFESSIONAL ENGINEER

MDP L1 P1
L2 P2

EVIDENCE STORAGE BUILDING

SMITHFIELD, VIRGINIA

PROJECT NO: 550322	DATE: OCTOBER 15, 2015
REVISIONS	
DATE	DESCRIPTION

PANELBOARD SCHEDULES

E5.1

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