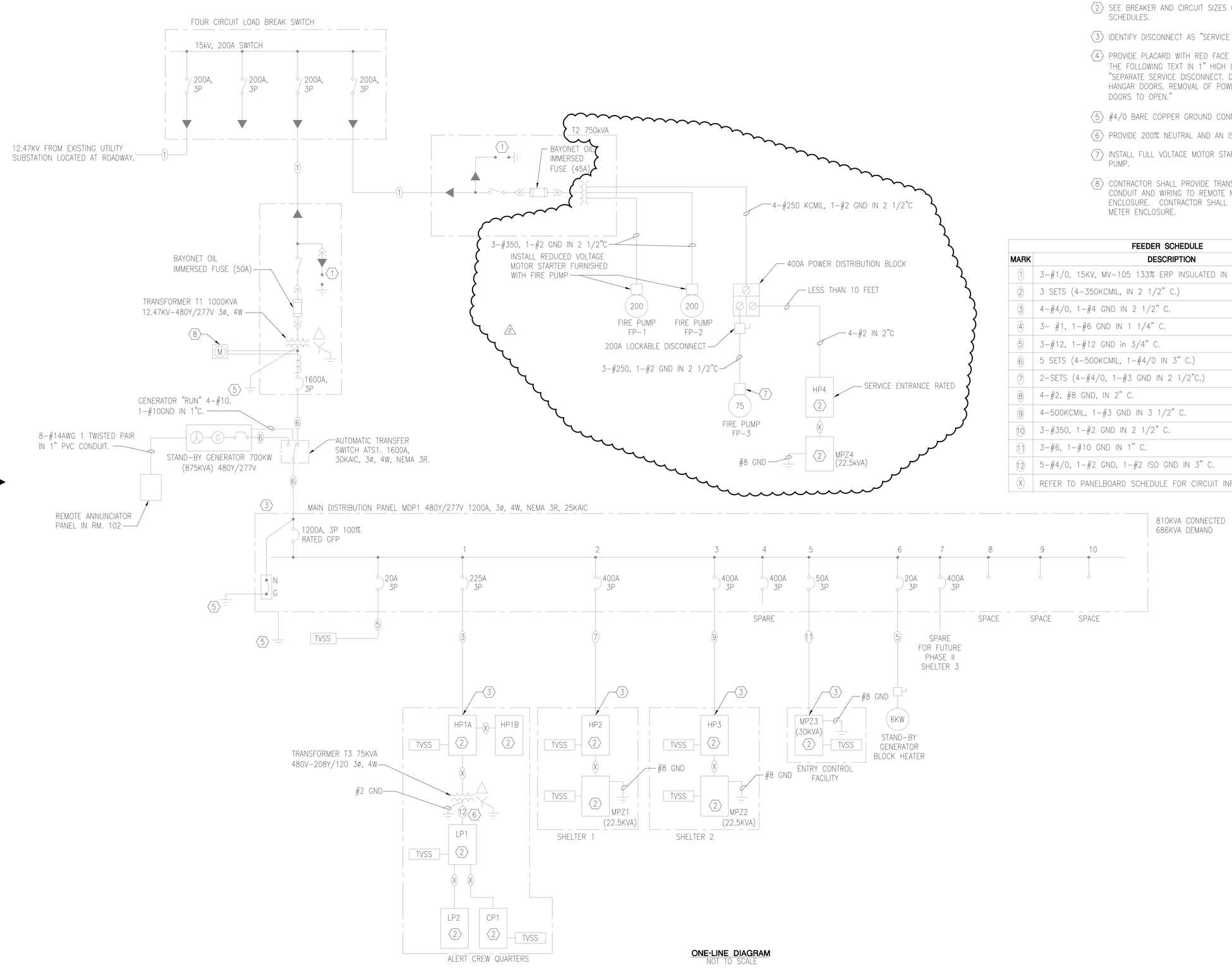

ONE-LINE DIAGRAM
NOT TO SCALE

KEYED NOTES:

1. INTERMEDIATE CLASS MOV SURGE ARRESTOR RATED 15KV.
2. SEE BREAKER AND CIRCUIT SIZES ON PANELBOARD SCHEDULES.
3. IDENTIFY DISCONNECT AS "SERVICE DISCONNECT".
4. PROVIDE PLACARD WITH RED FACE AND WHITE CORE WITH THE FOLLOWING TEXT IN 1" HIGH LETTERING: "SEPARATE SERVICE DISCONNECT. DISCONNECT SERVES HANGAR DOORS. REMOVAL OF POWER WILL NOT ALLOW DOORS TO OPEN."
5. #4/0 BARE COPPER GROUND CONNECTION TO GROUND RING.
6. PROVIDE 200% NEUTRAL AND AN ISOLATION GROUND.
7. INSTALL FULL VOLTAGE MOTOR STARTER FURNISHED WITH FIRE PUMP.
8. CONTRACTOR SHALL PROVIDE TRANSFORMER CT'S AND PT'S, CONDUIT AND WIRING TO REMOTE METER, AND NEMA 3R ENCLOSURE. CONTRACTOR SHALL PROVIDE STRIP HEATER IN METER ENCLOSURE.

FEEDER SCHEDULE

MARK	DESCRIPTION
1	3-#1/0, 15KV, MV-105 133% ERP INSULATED IN 3"C.
2	3 SETS (4-350KCMIL, IN 2 1/2" C.)
3	4-#4/0, 1-#4 GND IN 2 1/2" C.
4	3- #1, 1-#6 GND IN 1 1/4" C.
5	3-#12, 1-#12 GND in 3/4" C.
6	5 SETS (4-500KCMIL, 1-#4/0 IN 3" C.)
7	2-SETS (4-#4/0, 1-#3 GND IN 2 1/2"C.)
8	4-#2, #8 GND, IN 2" C.
9	4-500KCMIL, 1-#3 GND IN 3 1/2" C.
10	3-#350, 1-#2 GND IN 2 1/2" C.
11	3-#6, 1-#10 GND IN 1" C.
12	5-#4/0, 1-#2 GND, 1-#2 ISO GND IN 3" C.
X	REFER TO PANELBOARD SCHEDULE FOR CIRCUIT INFORMATION

no.	date	by	revision
0	6/06/05	MLM	ISSUED FOR BID
1	3/24/06	MLM	ISSUED FOR RFP 17
2	5/25/06	MLM	REVISED PER RFP #26

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date 8/26/04	detailed J. MAJORS
designed M. MACOUBRIE	checked J. HOGLUND

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ONE-LINE DIAGRAM
PHASE I

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sheet 127 of 152 sheets

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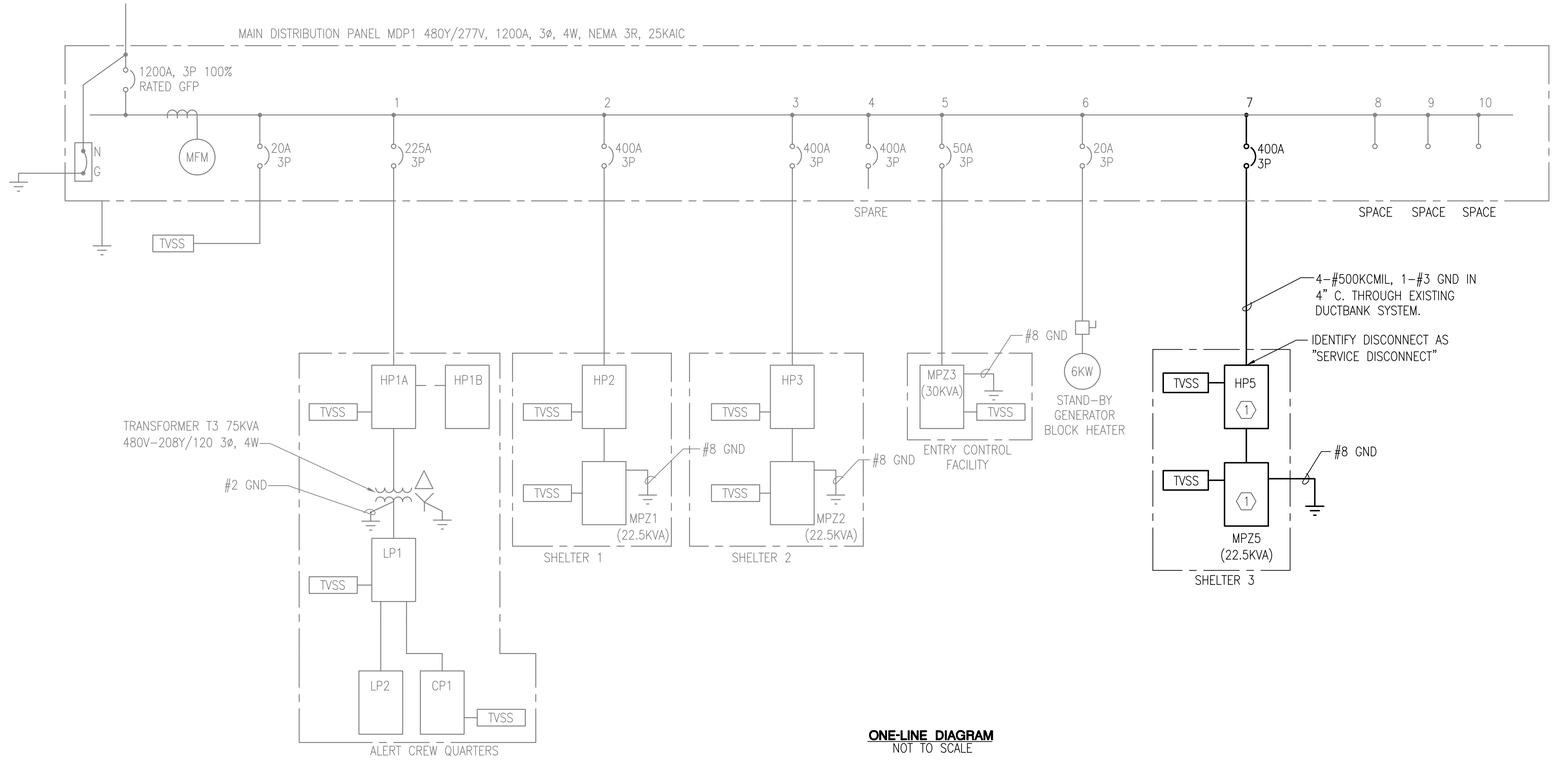
Scale For Microfilming
Millimeters
Inches



ONE-LINE DIAGRAM
NOT TO SCALE

KEYED NOTES:

1. SEE BREAKER AND CIRCUIT SIZES ON PANELBOARD SCHEDULE.
2. PROVIDE LOCKABLE BREAKER
3. BID OPTION 3: THE MEGADOOR SYSTEM REQUIRES LARGER MOTORS. PROVIDE ADEQUATE ELECTRICAL SERVICE TO DOOR. COORDINATE INSTALLATION WITH MEGADOOR. PANELBOARD IS SIZED TO ACCOMMODATE MEGADOOR INSTALLATION.
4. CIRCUIT BREAKERS AND CABLES FOR IDS PANEL SHALL BE GOVERNMENT FURNISHED GOVERNMENT INSTALLED. PROVIDE CONDUIT AND PULLSTRINGS FROM IDS PANEL TO ELECTRICAL PANELBOARD.

ONE-LINE LEGEND:

———	EXISTING (PHASE I)
———	NEW (PHASE II)

no.	date	by	revision
0	6/06/05	MLM	ISSUED FOR BID
1	3/24/06	MLM	ISSUED FOR RFP 17

PANELBOARD NAME: HP5 — 14,000 RMS SYMMETRICAL A.I.C.
PANELBOARD TYPE: MAIN CIRCUIT BREAKER — SURFACE MOUNTED, NEMA 3R ENCLOSURE — 400 AMP TRIP MAIN BREAKER
PANEL LOCATION: EXTERIOR, AIRCRAFT SHELTER 3 — 480Y/277 VOLTS, 3 PHASE, 4 WIRE — 400 AMP MAINS
SUPPLIED FROM: MDP1

CKT NO.	TRIP AMPS	NO. POLES	WIRE / CONDUIT	GND. WIRE	LOAD SERVED	LOAD VA	Ø	LOAD VA	LOAD SERVED	GND. WIRE	WIRE / CONDUIT	NO. POLES	TRIP AMPS	CKT. NO.
						24167	A	24167						
3	110	3	3-#2 , 1 1/2"	#6	62.5KVA 400HZ CONVTR (N)	24167	B	24167	62.5KVA 400HZ CONVTR (S)	#6	3-#2 , 1 1/2"	3	110	4
			1-#2 NEUTRAL			24167	C	24167			1-#2 NEUTRAL			
7	20	1	2-#12 , 3/4"	#12	EXIT, EMERG. LIGHTING BAY	440	A	6374						
9	20	1	2-#10 , 3/4"	#10	SHELTER LIGHTING - EXTERIOR	2700	B	6374	SOUTH BAY DOOR	#10	3-#8 , 3/4"	3	45	10
						1720	C	6374	(2 - 9HP MOTORS - OPTION 3)		1-#2 NEUTRAL			
13	40	3	3-#8 , 1"	#10	PANEL MPZ5 (22.5KVA)	1720	A	6374						
						1720	B	6374	SOUTH BAY DOOR	#10	3-#8 , 3/4"	3	45	16
						443	C	6374	(2 - 9HP MOTORS - OPTION 3)					
19	20	3	3-#12 , 3/4"	#12	HTG EXHAUST PMP (3/4 HP)	443	A	6374						
						443	B	6374	NORTH BAY DOOR	#10	3-#8 , 3/4"	3	45	22
23	20	1	2-#12 , 3/4"	#12	LIGHTING - NORTH BAY	3294	C	6374	(2 - 9HP MOTORS - OPTION 3)					
25	20	1	2-#12 , 3/4"	#12	LIGHTING - NORTH BAY	3294	A	6374						
27	20	1	2-#12 , 3/4"	#12	LIGHTING - SOUTH BAY	3294	B	6374	NORTH BAY DOOR	#10	3-#8 , 3/4"	3	45	28
29	20	1	2-#12 , 3/4"	#12	LIGHTING - SOUTH BAY	3294	C	6374	(2 - 9HP MOTORS - OPTION 3)					
31		1			SPACE		A		SPARE			1	20	32
33		1			SPACE		B		SPARE			1	20	34
35		1			SPACE		C		SPARE			1	20	36
37		1			SPACE		A							
39		1			SPACE		B		TVSS DEVICE		3-#10 , 3/4"	3	20	40
41		1			SPACE		C							

TOTAL CONNECTED LOAD = 244.3 kVA X 82% DEMAND FACTOR = 199.7 kVA ESTIMATED DEMAND LOAD
PHASE BALANCE (KVA) - A: 79.7 , B: 82 , C: 82.6

PANELBOARD NAME: MPZ5 — 10,000 RMS SYMMETRICAL A.I.C.
PANELBOARD TYPE: MAIN CIRCUIT BREAKER — SURFACE MOUNTED, NEMA 3R ENCLOSURE
PANEL LOCATION: EXTERIOR, AIRCRAFT SHELTER 3 — 208Y/120 VOLTS, 3 PHASE, 4 WIRE
SUPPLIED FROM: HP5 — 22.5KVA MINI POWER ZONE PANEL WITH 80A SECONDARY MAIN BREAKER

CKT NO.	TRIP AMPS	NO. POLES	WIRE / CONDUIT	GND. WIRE	LOAD SERVED	LOAD VA	Ø	LOAD VA	LOAD SERVED	GND. WIRE	WIRE / CONDUIT	NO. POLES	TRIP AMPS	CKT. NO.
1	20	1	2-#10 , 3/4"	#10	RECPT. EXT.	540	A	80	ROOF OBSTRUCTION LIGHTS	#12	2-#12 , 3/4"	1	20	2
3	20	1	2-#10 , 3/4"	#10	RECPT. EXT.	540	B	500	SECURITY DEVICES	#10	2-#10 , 3/4"	1	20	4
5	20	1	2-#12 , 3/4"	#12	ALERT CONTROL PANEL	1000	C	500	CCTV CAMERAS	#10	2-#10 , 3/4"	1	20	6
7	20	1	2-#12 , 3/4"	#12	IDS PANEL	1000	A		SPACE			1		8
9	20	1	2-#12 , 3/4"	#12	PA SYSTEM	1000	B		SPACE			1		10
11	20	1			SPARE		C		SPACE			1		12
13	20	1			SPARE		A							
15	20	1			SPARE		B		TVSS DEVICE		3-#10 , 3/4"	3	20	16
17		1			SPACE		C							

TOTAL CONNECTED LOAD = 5.2 kVA X 100% DEMAND FACTOR = 5.2 kVA ESTIMATED DEMAND LOAD
PHASE BALANCE (KVA) - A: 1.6 , B: 2 , C: 1.5

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date	detailed
8/26/04	J. MAJORS
designed	checked
M. MACOUBRIE	J. HOGLUND

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ONE-LINE DIAGRAM
PHASE II

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sheet 39 of 47 sheets

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Scale For Microfilming: Millimeters / Inches