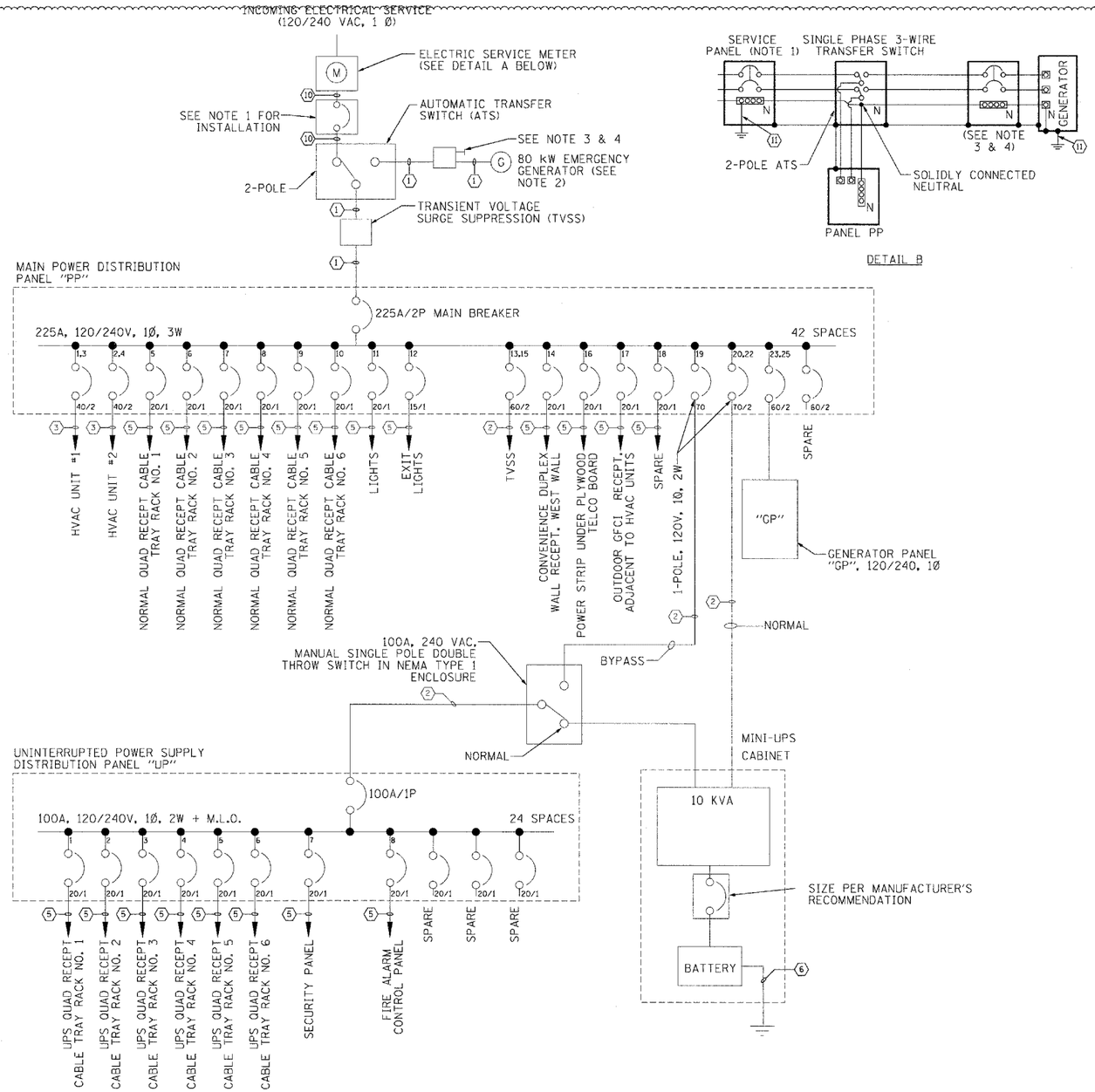

DETAIL B

PANEL CIRCUIT AND LOAD SCHEDULE

WIRE SIZE #4/0
1P, 225A

LOAD DESCRIPTION	QTY	UNIT (W)	LOAD PER PHASE(KVA) A	LOAD PER PHASE(KVA) B	TRIP	POLES	WIRE SIZE
HVAC UNIT 1 (36K BTU)	1	10300	5150		40	2	6
				5150			
NORMAL QUAD RECEPTACLE - RACK 1	1	900	900		20	1	12
NORMAL QUAD RECEPTACLE - RACK 3	1	900		900	20	1	12
NORMAL QUAD RECEPTACLE - RACK 5	1	900	900		20	1	12
LIGHTS	8	50		400	20	1	12
TVSS	1	N/A	—		60	2	4
				—			
OUTDOOR GFCI RECEPTACLE	1	180	180		20	1	12
UPS BYPASS (LOAD NOT INCLUDED IN TOTALS)					70	1	3
SPARE					20	1	
GENERATOR PANEL "GP"					60	2	6
SPARE	1				20	1	
SPARE	1				20	1	
SPARE	1				20	1	
SPARE	1				20	1	
SPARE	1				20	1	
SPARE	1				20	1	
SPARE	1				20	1	
SPARE	1				20	1	
		SUBTOTAL LEFT	1980	6450			

WIRE SIZE	POLES	TRIP	LOAD PER PHASE(W) A	LOAD PER PHASE(W) B	LOAD UNIT (W)	LOAD QTY	LOAD DESCRIPTION
6	2	40	5150		10300	1	HVAC UNIT 2 (36K BTU)
				5150			
12	1	20	900		900	1	NORMAL QUAD RECEPTACLE - RACK 2
12	1	20		900	900	1	NORMAL QUAD RECEPTACLE - RACK 4
12	1	20	900		900	1	NORMAL QUAD RECEPTACLE - RACK 6
12	1	20		35	35	1	EXIT LIGHT
12	1	20	900		180	5	DUPLEX RECEPTACLE
12	1	20		900	180	5	RECEPTACLE- POWER STRIP
	1	20					SPARE
2	2	70	5000		10000	1	UPS INPUT (10 KVA)
				5000			
	1	20				1	SPARE
	1	20				1	SPARE
	1	20				1	SPARE
	1	20				1	SPARE
	1	20				1	SPARE
	1	20				1	SPARE
	1	20				1	SPARE
	1	20				1	SPARE
	1	20				1	SPARE
	1	20				1	SPARE
			9850	8985	SUBTOTAL RIGHT		
			11830	15435	SUBTOTAL		

SERVICE : 120/240VAC, 1Ø, 3W
DESIGNATION : IDOT- SHELTER NORMAL POWER (PP)
LOCATION : I55 VIDEO COLLECTION POINT 2 (I55 VCP2)

VOLTAGE: 120/240V CYCLE: 60 Hz PHASE: 1 WIRES: 3
SOLID NEUTRAL: 225 AMPS
MAIN BREAKER: 225 AMP FRAME 225 AMP TRIP
MAIN LUGS: - AMPS MAIN COPPER BUS: 225 AMPS
MAINS: TOP [X] BOTTOM [ ]
S/N
GRD

MANUFACTURER:
TYPE AND CAT. NO. : ~~0014QM200~~
NO EQUAL: [X] APPROVED EQUAL: [ ]
MOUNTING: SURFACE: [X] FLUSH: [ ]

TOTAL LOAD: 27,265 W

1. BOLT ON BRANCH BREAKERS
2. ALL COPPER CURRENT CARRYING PARTS
3. (1) = SHUNT TRIP

PANEL CIRCUIT AND LOAD SCHEDULE

WIRE SIZE #2
1P, 100A

LOAD DESCRIPTION	QTY	UNIT (W)	LOAD PER PHASE(KVA) A	TRIP	POLES	WIRE SIZE
UPS QUAD RECEPTACLE - CAB 1	1	900	900	20	1	12
UPS QUAD RECEPTACLE - CAB 3	1	900	900	20	1	12
UPS QUAD RECEPTACLE - CAB 5	1	900	900	20	1	12
SECURITY PANEL	1	260	260	20	1	12
SPARE	1			20	1	
SPARE	1			20	1	
SPARE	1			20	1	
SPARE	1			20	1	
SPARE	1			20	1	
SPARE	1			20	1	
SPARE	1			20	1	
SPARE	1			20	1	
		SUBTOTAL LEFT	1800	1160		

WIRE SIZE	POLES	TRIP	LOAD PER PHASE(W) A	LOAD UNIT (W)	LOAD QTY	LOAD DESCRIPTION
12	1	20	900	900	1	UPS QUAD RECEPTACLE - CAB 2
12	1	20	900	900	1	UPS QUAD RECEPTACLE - CAB 4
12	1	20	900	900	1	UPS QUAD RECEPTACLE - CAB 6
12	1	20	260	260	1	FIRE ALARM CONTROL PANEL
	1	20			1	SPARE
	1	20			1	SPARE
	1	20			1	SPARE
	1	20			1	SPARE
	1	20			1	SPARE
	1	20			1	SPARE
	1	20			1	SPARE
	1	20			1	SPARE
			1800	1160	SUBTOTAL RIGHT	
			3600	2320	SUBTOTAL	

SERVICE : 120/VAC, 1Ø
DESIGNATION : IDOT- SHELTER UPS POWER (UP)
LOCATION : I55 VIDEO COLLECTION POINT 2 (I55 VCP2)

VOLTAGE: 120/240V CYCLE: 60 Hz PHASE: 1 WIRES: 2
SOLID NEUTRAL: 100 AMPS
MAIN BREAKER: 100 AMP FRAME 100 AMP TRIP
MAIN LUGS: - AMPS MAIN COPPER BUS: 100 AMPS
MAINS: TOP [X] BOTTOM [ ]
S/N
GRD

MANUFACTURER:
TYPE AND CAT. NO. : ~~0014QM200~~
NO EQUAL: [X] APPROVED EQUAL: [ ]
MOUNTING: SURFACE: [X] FLUSH: [ ]

TOTAL LOAD: 5,920 W

1. BOLT ON BRANCH BREAKERS
2. ALL COPPER CURRENT CARRYING PARTS

NOTES:
1. INSTALL NEW 225 AMP MAIN CIRCUIT BREAKER DISCONNECT SWITCH WITH NEUTRAL AND GROUND BUS IN NEMA 1 ENCLOSURE.
2. INSTALL NEW 225 AMP CIRCUIT BREAKER DISCONNECT SWITCH WITH NEUTRAL AND GROUND BUS IN NEMA TYPE 3R ENCLOSURE.
3. ALL CONDUIT SHALL BE RIGID GALVANIZED STEEL UNLESS OTHERWISE NOTED.
4. ALL WIRE SHALL BE TYPE THWN UNLESS OTHERWISE NOTED.

(1) (2) #4/0, (1) #4/0 NEUTRAL & (1) #2 GND, 3" C
(2) (1) #2, (1) #2 NEUTRAL, & (1) #6 GND, 1 1/2" C
(3) (2) #8 & (1) #10 GND, 3/4" C
(4) (2) #10 & (1) #12 GND, 3/4" C
(5) (2) #12 & (1) #12 GND, 3/4" C
(6) #6 GND WIRE, 3/4" C
(7) #4/0, BARE COPPER GROUND
(8) QUANTITY & CONTROL WIRE SIZE PER MANUFACTURER'S RECOMMENDATION, 3/4" RGS
(9) #8 BARE COPPER GROUND
(10) (3) #4/0, 3" C
(11) (1) #2 GND, 1" C

FILE NAME = c:\pw_work\PWIDOT\TOMSONSRE\d0127928\E05928-lightdgn	USER NAME = tomsonsre	DESIGNED -	REVISED - 1 ADDENDUM	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	COMMUNICATIONS SHELTER POWER SINGLE LINE DIAGRAM
	PLOT SCALE = 50.0000 ' / IN.	DRAWN -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.
	PLOT DATE = 5/13/2009	CHECKED -	REVISED -		
		DATE -	REVISED -		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2007-0621	*		73a
		CONTRACT NO. 60E01		
	ILLINOIS FED. AID PROJECT			

* WILL, DUPAGE, COOK