



DESCRIPTION OF MATERIAL									
ITEM	DESCRIPTION	QTY	MARK	QTY	QTY	QTY	QTY	QTY	QTY
1	CABLE, COPPER, BARE, CIR. 112-C, NO. 2/0 AWG, 37 WIRE, 1/2" DIA.	25-35							02-094701
2	CABLE, COPPER, BARE, CIR. 112-C, NO. 2/0 AWG, 37 WIRE, 1/2" DIA.	23-27							10-266752
3	CLIP, GROUND WIRE, HARD-DRAWN COPPER OR BRONZE CASTING, 1/2" X 1/2" X 1/2"	42-15	78-14	ET-112C					10-436504
4	CLIP, GROUND WIRE, HARD-DRAWN COPPER OR BRONZE CASTING, 1/2" X 1/2" X 1/2"	1-18							10-7000
5	ANCHOR, CINC, TWO-UNIT, PLAIN 3/8" (DRILL HOLE IN HOLE IN CONCRETE 1" X 2")	16-35	80-20	ET-112C					10-11467
6	BOLT, STEEL, GALV, HH EN, 1/2" X 2 1/2"	12-19	805	ET-112C					10-085553
7	BOLT, BRONZE, HH EN, SPEC. C.E. 865, CLASS B, 1/2" X 2 1/2"	24-17	79-31	5-178					02-577508
8	TERMINAL, SLEEVE, DRIVEN TYPE, FOR 2/0 C. BLE	78-15							02-549754
9	STAPLE, COPPERWELD, 1/2" X 2"	48-52							
10	CONNECTOR, CLAMP TYPE, BUNDLY WIRE, GALV. STEEL, 1/2" X 1/2" X 1/2"	48-52							
11	CONNECTOR, CLAMP TYPE, BUNDLY WIRE, GALV. STEEL, 1/2" X 1/2" X 1/2"	48-52							
12	BAR, COPPER, HARD-DRAWN, 1/4" X 2"	6-20							21-358004
13	STAPLE, COPPERWELD, 1/2"	78-15							
14	BAR, COPPER, HARD-DRAWN, 1/4" X 3"	6-21							21-SPECIAL
15	BOLT, BRONZE, HH EN, SPEC. C.E. 865, CLASS B, 1/2" X 5"	12-24	88-30	ET-112C					10-4366
16	BOLT, STEEL, GALV, HH EN, 1/2" X 1 1/2" LONG								
17	RESISTOR, THYRITE GEX 320755, G.E. CO	72-44							
18	OUTLET, PARKWAY - COMPLETE		18-44	5-184					02-317751
18A	CLIP, FOR PARKWAY - CONNECTOR CABLE		18-44	5-184					02-124750
19	CONNECTOR, CLAMP TYPE, BUNDLY WIRE, GALV. STEEL, 1/2" X 1/2" X 1/2"	48-52							
20									
21	CONNECTOR, RAIL BOND, 2 1/2" LONG		17-31	5-173					02-140-57
22	ANCHOR, CINC, TWO-UNIT, PLAIN 3/8" (DRILL HOLE IN HOLE IN CONCRETE 1" X 1 1/2")	1-17							43-SPECIAL
22A	BOLT, BRONZE, HH EN, 3/8" X 2" LONG								
23	CONNECTOR, CLAMP TYPE, BUNDLY WIRE, GALV. STEEL, 1/2" X 1/2" X 1/2"								10-SPECIAL
24	BEAM BRIDGE ASSEMBLY - 1/2" X 2" X 1/2"								10-SPECIAL
25	BOLT, U. STEEL, GALV, SPEC. P. 115, 1/2" X 2 1/2" X 1/2"	19-17	UB-34	ET-112C					10-34050
26	CLAMP, CABLE, COMPLETE, 3/16" SIZE	37-9							10-3945-8
27	SHACKLE, CHAIN, FORGED STEEL, GALV, INCLUDES BOLT HH EN	75-30	84	ET-305-C					10-743108
28	CONNECTOR, FOR 2/0 CABLE BUNDLY WIRE, GALV. STEEL, 1/2" X 1/2" X 1/2"	48-52							10-5-0400
29	CABLE, COPPER, BARE, CIR. 112-C, NO. 2/0 AWG, 37 WIRE, 1/2" DIA.	23-27							10-1-57708
30	THIMBLE, FORGED BRONZE, SPEC. C.E. 865, CLASS B, 1/2" X 3/4"	84-44	TH-3	18-1234					10-364559
31	GROUND WIRE SUPPORT, FIG. X, DETAIL B								10-ET-112C
32	ANCHOR, CINC, THREE-UNIT, PLAIN 3/8" (DRILL HOLE IN HOLE IN CONCRETE 1" X 1 1/2")	1-27							43-SPECIAL
33	ANCHOR, CINC, THREE-UNIT, PLAIN 3/8" (DRILL HOLE IN HOLE IN CONCRETE 1" X 1 1/2")	1-19							43-SPECIAL
34	BOLT, STEEL, GALV, HH EN, 1/2" X 3 1/2"								
35	BAND, FORGED MEDIUM STEEL, GALV, BRACE TYPE, TWO-POLE TO SUIT POLE SIZE, COMPLETE WITH BOLT HH EN	4-1	FB-1	19E-51					10-SPECIAL
36									
37	BOLT, STEEL, GALV, HH EN, 7/8" X 1/2"								
38	CABLE, COPPER, BARE, CIR. 112-C, NO. 2/0 AWG, 37 WIRE, 1/2" DIA.	23-27							10-SPECIAL
39	RHO, WEL. STEEL, FORGING GALV, SPEC. P. 115, 1/2" X 1/2" X 1/2"	51-26							10-148-65
40	CONNECTOR, GROUND COPPER ALLOY, TIN PLATED, FOR CABLE TO BAR WITH 1/2" X 3/4" LONG BOLT, BUNDLY WIRE								
41									
42									
43									
44									
45									
46	ROD, GROUND, 1" DIA., 10'-0" LONG	73-27							10-SPECIAL
47	WASHER, FLAT, FOR 3/8" BOLT, BUNDLY WIRE								
48	BAR, 1/2" ALCOA ALLOY NO. 6161-FG1								10-ET-112C
49	CABLE, ALUM. BARE, SPEC. C.E. 865, CLASS B, 2/0 AWG, 37 WIRE, 1/2" DIA.	23-27							10-7306
50									
51	BOLT, DUT. BAR, HH EN, 1/2" X 1 1/2" LONG, ALCOA ALLOY 6061-T6								
52	NUT, HH EN, 1/2" X 1 1/2" LONG, ALCOA ALLOY 6061-T6								
53									
54									
55									
56									
57									
58									
59	CARTRIDGE, CADWELD, SIZE # 30								
60	CARTRIDGE, CADWELD, SIZE # 115								
61	CARTRIDGE, CADWELD, SIZE # 100								
62	CARTRIDGE, CADWELD, SIZE # 200								

FOR APPLICATION OF ITEM 8 (SLEEVE TERMINAL) TO ITEMS 2 OR 3 (2/0 CABLE), USE BUNDLY Y344 HYPRSS AND A2350 DIE SET OR Y35 HYPRSS AND U25 YET DIE SET (5 CRIMPS REQUIRED ON SLEEVE TERMINAL) \* OR APPROVED EQUAL

**WELDING INSTRUCTIONS**  
 MOLDS, CABLES, AND ALL SURFACES MUST BE BRIGHT-CLEAN, DRY, AND FREE FROM GREASE AND OIL.  
 MOLD MUST BE DRY. IF AT ALL DOUBTFUL, FIRE A CARTRIDGE IN MOLD TO WARM IT.  
 1-CENTER CABLES, OR CABLE AND BAR UNDER TAP HOLE AND LOCK HANDL. CLAMP.  
 2-COVER TAP HOLE WITH STEEL DISK.  
 3-PUMP CARTRIDGE INTO CRUCIBLE, BEING CAREFUL NOT TO UPSET STEEL DISK. WHEN TWO OR MORE CARTRIDGES ARE USED THEY MUST BE DUMPED SIMULTANEOUSLY. TAP BOTTOM OF CARTRIDGES TO BE SURE ALL STARTING POWDER IS LOOSENED AND SPREAD EVENLY OVER WELDING POWDER.  
 4-CLOSE COVER AND IGNITE POWDER WITH FLINT GUN. JERK GUN AWAY TO PREVENT FOULING.  
 5-DO NOT OPEN MOLD UNTIL METAL HAS SOLIDIFIED.  
 6-REMOVE ALL SLAG FROM MOLD BEFORE MAKING NEXT WELD.

**NOTE**  
 FLINT GUNS WHICH BECOME FOULING MAY BE CLEANED BY SOAKING IN HOUSEHOLD AMMONIA.

ISSUE NO.	DATE	BY	CHKD	CORRECT	REMARKS	APPR.
14	1-24-74	F.V.			ADDED TIN PLATING TO COPPER CONN. ITEM 80 RMRU. ITEM 20	
13	1-24-74	F.V.			ADDED ITEM 40 IN DWM CADD. ITEM 20 TO ITEM 40 IN C.E. 865	
12	1-24-74	F.V.			ADDED ITEM 40 IN DWM CADD. ITEM 20 TO ITEM 40 IN C.E. 865	
11	1-24-74	F.V.			ADDED ITEM 40 IN DWM CADD. ITEM 20 TO ITEM 40 IN C.E. 865	
10	1-24-74	F.V.			ADDED ITEM 40 IN DWM CADD. ITEM 20 TO ITEM 40 IN C.E. 865	
9	1-24-74	F.V.			ADDED ITEM 40 IN DWM CADD. ITEM 20 TO ITEM 40 IN C.E. 865	
8	1-24-74	F.V.			ADDED ITEM 40 IN DWM CADD. ITEM 20 TO ITEM 40 IN C.E. 865	
7	1-24-74	F.V.			ADDED ITEM 40 IN DWM CADD. ITEM 20 TO ITEM 40 IN C.E. 865	
6	1-24-74	F.V.			ADDED ITEM 40 IN DWM CADD. ITEM 20 TO ITEM 40 IN C.E. 865	
5	1-24-74	F.V.			ADDED ITEM 40 IN DWM CADD. ITEM 20 TO ITEM 40 IN C.E. 865	
4	1-24-74	F.V.			ADDED ITEM 40 IN DWM CADD. ITEM 20 TO ITEM 40 IN C.E. 865	
3	1-24-74	F.V.			ADDED ITEM 40 IN DWM CADD. ITEM 20 TO ITEM 40 IN C.E. 865	
2	1-24-74	F.V.			ADDED ITEM 40 IN DWM CADD. ITEM 20 TO ITEM 40 IN C.E. 865	
1	1-24-74	F.V.			ADDED ITEM 40 IN DWM CADD. ITEM 20 TO ITEM 40 IN C.E. 865	

**THIS DRWG SUPERSEDES**  
 ET-697D (IN PART), ET-960D,  
 DRWGS. ET-748E, ET-385E, ET-74E, ET-23-  
 611 S OF SAME NUMBER'S SUP. B

**THE PENNSYLVANIA RAILROAD**  
 ELECTRIFIED TERRITORY  
 TYPICAL DETAILS FOR POWER  
 BONDING OF STRUCTURES

PHILADELPHIA, PA. 19104  
 J. J. Cover  
 2 1/2" X 3 1/2" ELECTRICAL ENGINEER