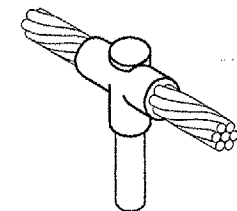


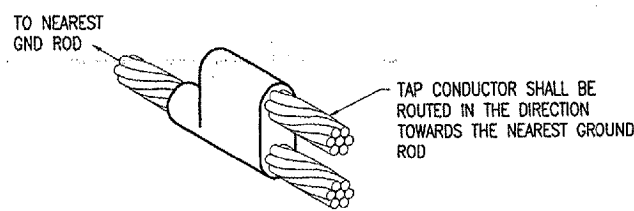


CABLE TO GROUND ROD

CABLE TO GROUND ROD



CABLE TO GROUND ROD

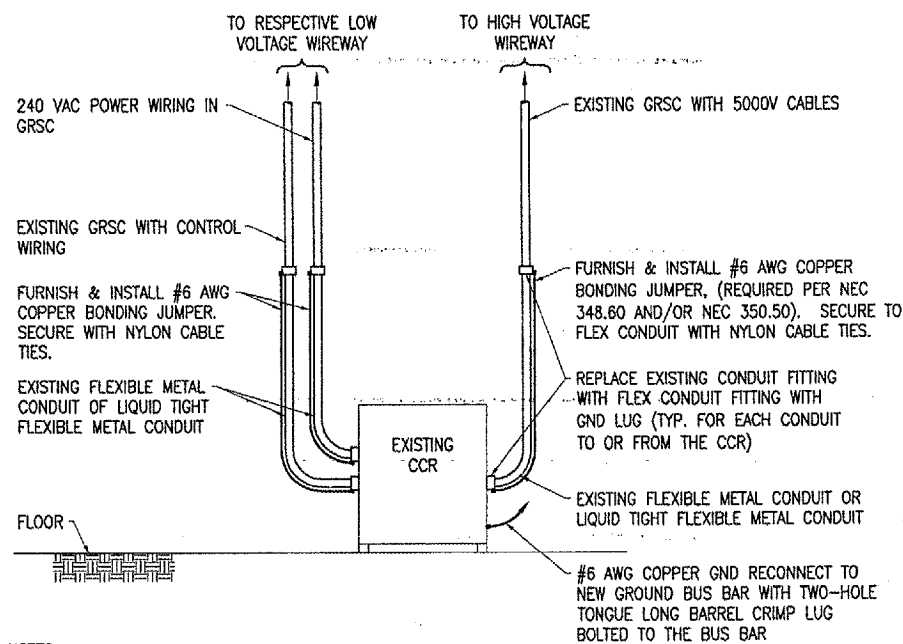


CABLE TO CABLE
HORIZONTAL PARALLEL TAP

DETAIL NOTES

- EXOTHERMIC WELDS SHALL BE CADWELD AS MANUFACTURED BY ERICO PRODUCTS, SOLON, OHIO, ULTRAWELD AS MANUFACTURED BY HARGER LIGHTNING PROTECTION & GROUNDING EQUIPMENT, GRAYSLAKE, IL, OR THERMOWELD AS MANUFACTURED BY CONTINENTAL INDUSTRIES, TULSA, OKLAHOMA. VERIFY PROPER SIZES, MOLDS, TYPES, AND REQUIREMENTS FOR THE RESPECTIVE APPLICATION WITH THE MANUFACTURER, AND INSTALL PER THEIR DIRECTIONS.
- FOR APPLICATIONS TO GALVANIZED STEEL OR PAINTED STEEL, REMOVE GALVANIZING AND/OR PAINT & CLEAN THE SURFACE TO EXPOSE BARE STEEL BEFORE MAKING EXOTHERMIC WELD CONNECTION.
- INDIVIDUAL GROUNDING ELECTRODE CONDUCTORS SHALL NOT BE INSTALLED IN METAL CONDUIT. INSTALL GROUNDING ELECTRODE CONDUCTORS IN SCHED 40 PVC CONDUIT AS REQUIRED IN FOUNDATIONS, FOR PROTECTION, WHERE ENTERING ENCLOSURES, ETC.

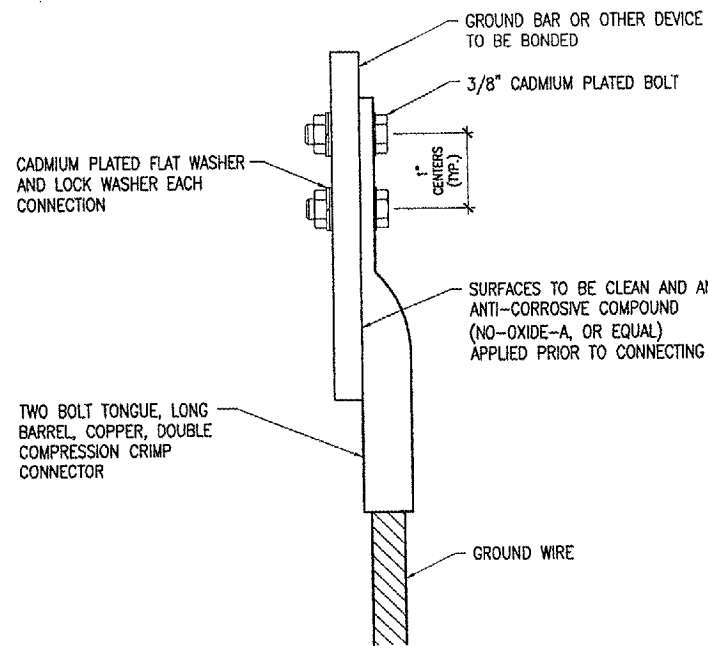
EXOTHERMIC WELD DETAILS



NOTES

- THE EXISTING 5000V CIRCUIT CONDUCTORS FROM EACH CONSTANT CURRENT REGULATOR TO THE RIGID CONDUIT & HIGH VOLTAGE WIREWAY ARE INSTALLED IN FLEXIBLE METAL CONDUIT. REPLACE THE EXISTING CONDUIT TERMINATION FITTINGS WITH EXTERNAL GROUND LUG TYPE FLEX CONDUIT FITTINGS TO ACCOMMODATE AN EXTERNAL BONDING JUMPER. FURNISH & INSTALL A #6 AWG COPPER EXTERNAL BONDING JUMPER FOR EACH FLEXIBLE METAL CONDUIT ASSOCIATED WITH THE 5000V SERIES CIRCUITS. THIS APPLIES TO THE FOLLOWING CONSTANT CURRENT REGULATORS: CCR #1, CCR #2, CCR #3, CCR #4, CCR #6, CCR #7, CCR #8, CCR #9, CCR #10, CCR #12, & CCR #13.
- THE EXISTING 240 VAC POWER & CONTROL CIRCUIT CONDUCTORS FROM THE RESPECTIVE RIGID CONDUIT TO EACH CONSTANT CURRENT REGULATOR ARE INSTALLED IN FLEXIBLE METAL CONDUIT. REPLACE THE EXISTING CONDUIT TERMINATION FITTINGS WITH EXTERNAL GROUND LUG TYPE FLEX CONDUIT FITTINGS TO ACCOMMODATE AN EXTERNAL BONDING JUMPER. FURNISH & INSTALL A #6 AWG COPPER EXTERNAL BONDING JUMPER FOR EACH FLEXIBLE METAL CONDUIT. THIS APPLIES TO THE FOLLOWING CONSTANT CURRENT REGULATORS: CCR #1, CCR #2, CCR #3, CCR #4, CCR #6, CCR #7, CCR #8, CCR #9, CCR #10, CCR #12, & CCR #13.

CCR GROUNDING UPGRADES

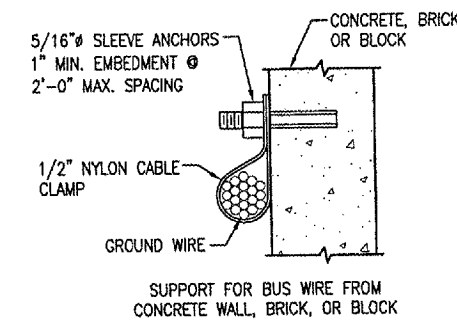
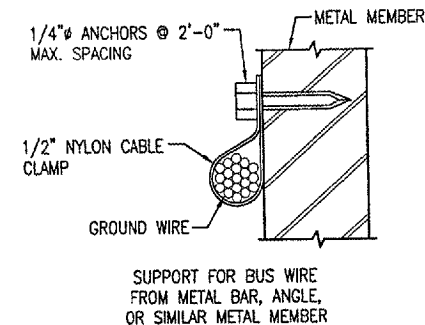


2 HOLE LONG BARREL COMPRESSION LUG TABLE		
WIRE SIZE	BURNDY CAT. NO.	THOMAS & BETTS CAT. NO.
#6 AWG STRANDED	YA6C-2TC38	256-30695-1158
#2 AWG STRANDED	YA2C-2TC38	256-30695-1160
#1/0 AWG STRANDED	YA25-2TC38	256-30695-1162
#2/0 AWG STRANDED	YA26-2TC38	256-30695-1116
#3/0 AWG STRANDED	YA27-2TC38	54816BE

NOTES

- ALL CONNECTIONS TO GROUND BUS BAR SHALL BE WITH 2 HOLE TONGUE LONG BARREL COMPRESSION LUGS BOLTED TO THE BUS BAR.
- GROUND WIRE CONNECTIONS TO EQUIPMENT SHALL BE WITH 2 HOLE TONGUE LONG BARREL COMPRESSION LUGS BOLTED TO THE DEVICE OR WITH THE RESPECTIVE EQUIPMENT MANUFACTURER'S LUG OR TERMINAL WHERE APPLICABLE.
- GROUNDING ELECTRODE CONDUCTORS, BONDING JUMPERS, & INDIVIDUAL GROUND WIRES SHALL NOT BE INSTALLED IN METAL CONDUIT.
- ALL CONNECTIONS SHALL BE COATED WITH A CORROSION PREVENTATIVE COMPOUND (NO-OXIDE-A, OR EQUAL) BEFORE JOINING. ALL COPPER BUS BARS SHALL BE CLEANED PRIOR TO MAKING CONNECTIONS TO REMOVE SURFACE OXIDATION. CLEAN SURFACES, OF RESPECTIVE DEVICES TO BE BONDED, TO BARE METAL, PER NEC 250-12.

GROUNDING LUG CONNECTION DETAIL



NOTE: WHERE NOTED ON THE PLANS GROUND WIRES SHALL BE RUN IN SCHED 40 PVC CONDUIT (SIZE AS DETAILED). PVC CONDUIT CONTAINING GROUND CONDUCTORS SHALL NOT HAVE METAL SUPPORTS THAT COMPLETELY ENCIRCLE THE CONDUIT. USE NYLON BOLTS, NUTS, WASHERS, AND/OR REINFORCED FIBERGLASS STRUT SUPPORT. DO NOT USE CABLE TIES NOR TIE WRAPS.

TYPICAL GROUND WIRE SUPPORT DETAIL

BY	
REVISION	
DATE	

DECATUR, ILLINOIS
A.I.P. PROJ.: J-17-0033-28
IL PROJ.: DEC-3414

NO. PROJ. NO.	802-041XXD
FILE NO.	E-501.DWG
SCALE	NONE
DATE	xx/xx/xx
LAYOUT	KNL 04/22/05
DRAWN	MY 04/25/05
REVIEWED	CAH 06/07/05

HANSON
Engineers, Architects, Scientists
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

TAXIWAY G WIDENING
PHASE II
GROUNDING DETAILS

JUN 10, 2005 3:50 PM CCC I:\AIRPORTS\DECATUR\802-041XXD\AIRPORT\WORKSHEETS\CONTRACT-2\E-501.DWG - Work-FLR