

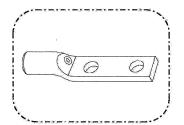
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT

TOTAL SHEE SHEETS NO. SECTION COUNTY NOTES: 344 (46-1S&47)WRS-2 LAKE 234 167 STA. GROUNDING SYSTEM TO STA.

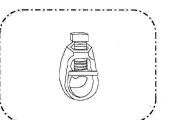
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR CONTRACT, NO. 60956 TYPE XIP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE CHANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. × 10'-0" (20mm × 3,0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.

2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.

- 3, ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- 4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



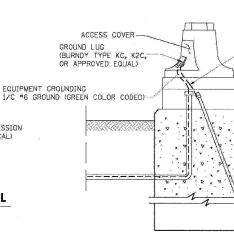
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
 GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES
- 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



GROUNDING ELECTRODE CONDUCTOR 1/C #6 GROUND (GREEN COLOR CODED)

HEAVY DUTY GROUND ROD CLAMP, EXOTHERMIC WELD, OR U.L. APPROVED CONNECTOR. (TYPICAL FOR ALL GROUND RODS)

-3/4" x 10' (20mm x 3.0m) COPPER CLAD GROUND ROD

MAST ARM POLE / POST-GROUNDING DETAIL (NOT TO SCALE)

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTA	OF TRANSPORTATION
NAME	DATE	ILLINUIS DEPARTMENT	UF TRANSPURTATION
CADD	5/30/00		
CADD	3/15/01	DISTRICT ONE	
BUREAU OF TRAFFIC	1/01/02		
BCK	10/28/09	STANDARD TRAFFIC SIGNAL DESIGN DETAILS	
			DEARNI BY, BCV
		SCALE: NONE	DRAWN BY: BCK DESIGNED BY: DA CHECKED BY: DAD
			CHECKED BY: DAD

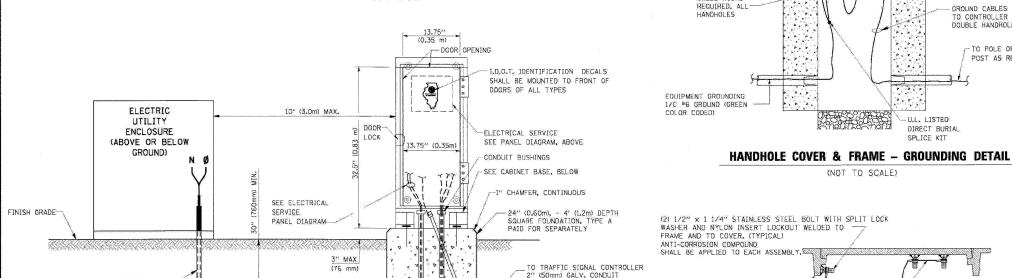
MOUNTING PLATE 0 TOP & BOTTOM AS PER MANUFACTURER -STANDOFF 1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508. (H) **(P)** CABINET, SHEET ALUMINUM CONNECTOR, TYP. PANELBOARD INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL. FABRICATION 2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED. 60A, MAIN CONTINUOUS PIANO HINGE-DISCONNEC* -15A MAIN DISCONNECT FUSE, KLKR 1/4 A POLE MOUNTED SERVICE TRAFFIC SIGNAL CABINET OUTSIDE CONTROLLER CABINET - LOCK, HASP DIMENSIONS I 612 x W 1242 x H 1444 -PADLOCK, FURNISHED BY CONTRACTOR, KEYED TO DISTRICT 1 REQUIREMENTS can cercula BREAKER NEUTRAL GROUND BUS POWER INDIGATOR LIGHT -INTERNALLY MOUNTED FOR--COMPRESSION LATCH, TYP, (2 MIN. REO'D) GROUND MOUNTED SERVICE -1 1/4" (30mm) DIA. COUPLING -STRAIN RELIEF COUPLING -TO GROUND ROD--SECONDARY FLECTRICAL 1/C #6 (GREEN) SERVICE BY UTILITY CO. 3/4" (20mm) GALV. CONDUIT -2-1/C (NEUTRAL-WHITE, PHASE-BLACK) ELECTRICAL SERVICE TO TRAFFIC SIGNAL CONTROLLER-(SEE CABLE PLANS, FOR ALL CABLE SIZES) -1/C GROUND (GREEN COLOR CODED) ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

(413 mm) 16.25" (0.29 m)

(29 mm)

BOLT LOCATIONS

SERVICE INSTALLATION POLE MOUNT (SHOWN)



CARINET BASE-

-3/4" x 10" (20mm x 3.0m) COPPER CLAD GROUND ROD

HEAVY DUTY COPPER COMPRESSION GROUNDING TERMINAL, (TYPICAL) FXISTING HANDHOLE CROUNDING CABLE

(NOT TO SCALE)

HANDHOLE COVER

DETAIL "A"

DETAIL "B"

GROUND CABLES TO CONTROLLER DOUBLE HANDHOLE

> TO POLE OR POST AS REQ'O.

-HANDHOLE COVER HANDLE

CAST CORNER FRAME WEB-

ANTI-CORROSION COMPOUND

STAINLESS STEEL WASHERS

SEE DETAIL "A"

CABLE HOOKS

SHALL BE APPLIED ON ALL BOLT/ CONNECTION ASSEMBLIES.

-STAINLESS STEEL BOLT, NUT AND 2

DL LISTED GROUND

COMPRESSION TERMINAL WITH STAINLESS STEEL NUT

ANTI-CORROSION COMPOUND SHALL BE APPLIED TO THE ASSEMBLY.

SEE DETAIL "B"

RECESSED COVER

-U.L. LISTED

DIRECT BURIAL

UL LISTED GROUND COMPRESSION TERMINAL

HANDHOLE: FRAME

EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)

2" (50mm) GALV. CONDUIT

SERVICE INSTALLATION

GROUND MOUNT

CABINET - BASE BOLT PATTERN

DATE NAME SCALE

TS05