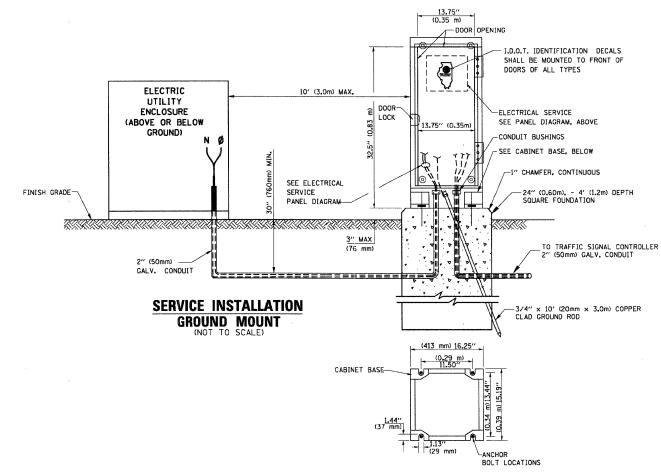


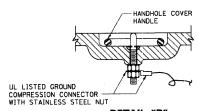
# ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN)



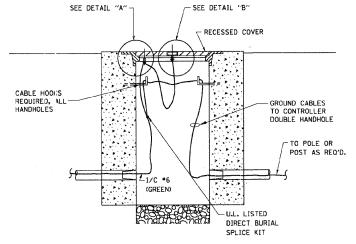
**CABINET - BASE BOLT PATTERN** 

STEEL WASHERS

- 1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508.
  - ANDHOLE FRAME CAST CORNER FRAME WEB UL LISTED GROUND COMPRESSION CONNECTOR ANTI-CORRUSION COMPOUND SHALL BE APPLIED ON ALL BOLT/ CONNECTION ASSEMBLIES. DETAIL "A" -STAINLESS STEEL NUT AND 2 STAINLESS



## DETAIL "B"



## HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)

(2) 1/2"  $\times$  1 1/4" STAINLESS STEEL BOLT WITH SPLIT LOCK WASHER AND NYLON INSERT LOCKOUT WELDED TO  $\longrightarrow$ FRAME AND TO COVER. (TYPICAL) HEAVY DUTY COPPER COMPRESSION GROUNDING TERMINAL. (TYPICAL)

FRAME AND COVER (PAID FOR SEPARATELY) EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL

 $\angle$  EXISTING HANDHOLE

(NOT TO SCALE)

GROUNDING CABLE

### NOTES:

#### 2505 94-P4008-01-BR KANE TO STA. STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

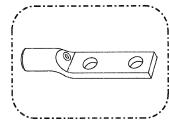
RTE. SECTION

CONTRACT NO. 83984

COUNTY

## GROUNDING SYSTEM

- 1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, 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. (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA.  $\times$  10'-0" (20mm  $\times$  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.



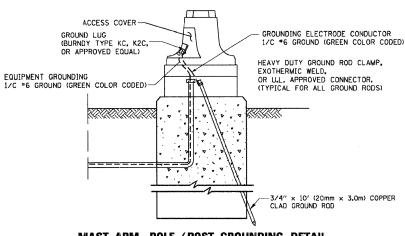


HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)

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

## 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.



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

REVISIONS NAME DATE		ILLINOIS DEPARTMENT OF TRANSPORTATION	
CADD	5/30/00		
CADD	3/15/01	חזכז	RICT ONE
BUREAU OF TRAFFIC	1/01/02	וכזט	RICI ONE
		STANDARD	TRAFFIC SIGNAL
		DF210	ON DETAILS
		SCALE: NONE	DRAWN BY: RWP
		JUNE HORE	DESIGNED BY: DAD CHECKED BY: DAZ
			SHEET 3 OF 4

TS05

DATE NAME SCALE