ELECTRICAL SERVICE TO

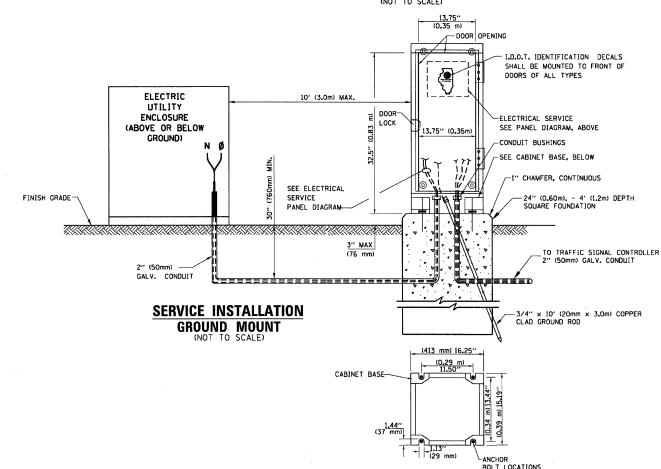
TRAFFIC SIGNAL CONTROLLER

(SEE ALL CABLE PLAN, FOR ALL CABLE SIZES)

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

## SERVICE INSTALLATION POLE MOUNT (SHOWN)

-1/C GROUND (GREEN COLOR CODED)



**CABINET - BASE BOLT PATTERN** 

NOTES:

- HANDHOLE COVER

DETAIL "A"

DETAIL "B"

RECESSED COVER

-U.L. LISTED

SPLICE KIT

DIRECT BURIAL

GROUND CABLES TO CONTROLLER

DOUBLE HANDHOLE

TO POLE OR

POST AS REQ'D.

- SEE DETAIL "B"

HANDHOLE COVER

CAST CORNER FRAME WEB

ANTI-CORROSION COMPOUND

SHALL BE APPLIED ON ALL

STEEL WASHERS

CABLE HOOKS REQUIRED, ALL

HANDHOLES

BOLT/ CONNECTION ASSEMBLIES.
-STAINLESS STEEL NUT AND 2 STAINLESS

SEE DETAIL "A" -

LIL LISTED GROUND COMPRESSION CONNECTOR

UL LISTED GROUND

COMPRESSION CONNECTOR --WITH STAINLESS STEEL NUT

-1/C #6

(GREEN)

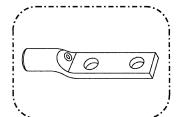
HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)

### GROUNDING SYSTEM

(847) 705-4139.

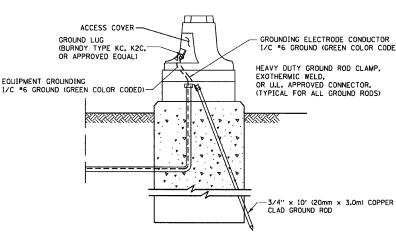
- 1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS, THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, 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,
- 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

#### 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.



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

REVISIONS	
NAME	DATE
CADD	5/30/00
CADD	3/15/01
BUREAU OF TRAFFIC	1/01/02

DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: NONE

# COUNTY SECTION 532B-1 DU PAGE TO STA. FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT 3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE YGHA OR APPROVED EQUAL) (BURNDY TYPE GRC OR APPROVED EUAL) 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER. 1/C \*6 GROUND (GREEN COLOR CODED)

CONTRACT NO

(2) 1/2" x 1 1/4" STAINLESS STEEL BOLT WITH SPLIT LOCK WASHER AND NYLON INSERT LOCKOUT WELDED TO FRAME AND TO COVER. (TYPICAL)

> HEAVY DUTY COPPER COMPRESSION GROUNDING TERMINAL (TYPICAL) ∠ EXISTING HANDHOLE - GROUNDING CABLE (PAID FOR SEPARATELY) FRAME AND COVER

**EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL** 

(NOT TO SCALE)

DATE NAME SCALE NAME

PLOT FILE PLOT USER

TS05