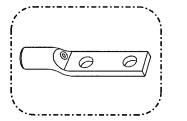


## GROUNDING SYSTEM

NOTES:

- 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. x 10'-0" (20mm x 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
- 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.

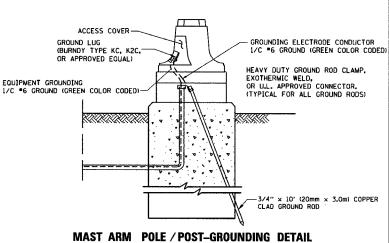


HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



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

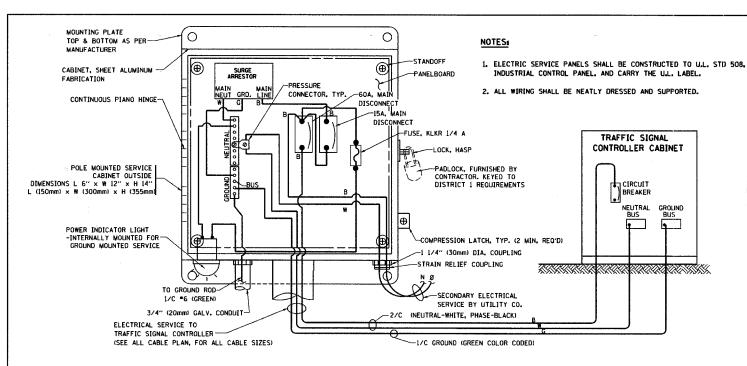
ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED. GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



| REVISIONS         |         | ILLINOIS DEPARTMENT OF TRANSPORTATION |
|-------------------|---------|---------------------------------------|
| NAME              | DATE    | ILLINOIS DELANIMENT OF THANSPORTATION |
| CADD              | 5/30/00 |                                       |
| CADD              | 3/15/01 | DISTRICT ONE                          |
| BUREAU OF TRAFFIC | 1/01/02 | DISTRICT ONE                          |
|                   |         | STANDARD TRAFFIC SIGNAL               |
|                   |         | DECICH DETAILS                        |
|                   |         | DESIGN DETAILS                        |

(NOT TO SCALE)

SCALE: NONE



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

# SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE) (0.35 m) \_\_DOOR OPENING I.D.O.T. IDENTIFICATION DECALS SHALL BE MOUNTED TO FRONT OF DOORS OF ALL TYPES **ELECTRIC** 10' (3.0m) MAX. UTILITY **ENCLOSURE** -ELECTRICAL SERVICE LOCK (ABOVE OR BELOW SEE PANEL DIAGRAM, ABOVE 3.75" (0.35m GROUND) -CONDUIT BUSHINGS SEE CABINET BASE, BELOW -1" CHAMFER, CONTINUOUS SEE ELECTRICAL FINISH GRADE--24" (O.60m), - 4" (1.2m) DEPTH SQUARE FOUNDATION PANEL DIAGRAM 3" MAX (76 mm) TO TRAFFIC SIGNAL CONTROLLER 2" (50mm) GALV. CONDUIT GALV. CONDUIT **SERVICE INSTALLATION** -3/4" x 10" (20mm x 3.0m) COPPER CLAD GROUND ROD **GROUND MOUNT** (413 mm) 16,25" (0.29 m) 11.50" CABINET BASE-

> **CABINET – BASE BOLT PATTERN** (NOT TO SCALE)

TO POLE OR POST AS REO'D. £1/C \*6 (GREEN) DIRECT BURIAL

UL LISTED GROUND COMPRESSION CONNECTOR — WITH STAINLESS STEEL NUT

- HANDHOLF COVER

DETAIL "A"

DETAIL "B"

RECESSED COVER

- SEE DETAIL "B"

-HANDHOLE COVER HANDLE

CAST CORNER FRAME WEB

ANTI-CORROSION COMPOUND

BOLT/ CONNECTION ASSEMBLIES

"STAINLESS STEEL NUT AND 2 STAINLESS STEEL WASHERS

SEE DETAIL "A"

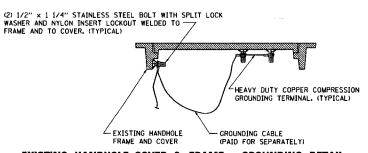
CABLE HOOKS REQUIRED, ALL-HANDHOLES

SHALL BE APPLIED ON ALL

UL LISTED GROUND
COMPRESSION CONNECTOR

## HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)



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

(NOT TO SCALE)