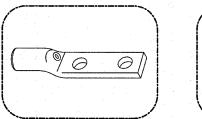
NOTES:

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 $3/4^{\prime\prime}$ 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.

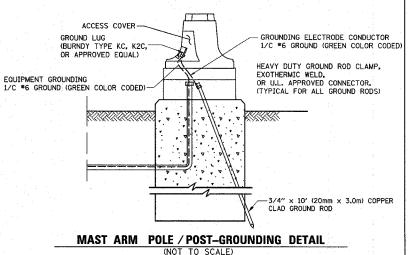


HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



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

• 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.



ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS DRAWN BY: RWP DESIGNED BY: DAD CHECKED BY: DAZ SHEET 3 OF 4 SCALE: DATE 1-01-02

NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508. -PANELBOARD INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL. 2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED. FUSE, KLKR 1/4 A TRAFFIC SIGNAL CONTROLLER CABINET -LOCK, HASP -PADLOCK, FURNISHED BY ANTI-CORROSION COMPOUND SHALL BE APPLIED ON ALL CONTRACTOR, KEYED TO DISTRICT 1 REQUIREMENTS CIRCUIT BOLT/ CONNECTION ASSEMBLIES. -STAINLESS STEEL NUT AND 2 STAINLESS STEEL WASHERS

-COMPRESSION LATCH, TYP. (2 MIN. REQ'D) 1 1/4" (30mm) DIA, COUPLING -STRAIN RELIEF COUPLING -SECONDARY ELECTRICAL SERVICE BY UTILITY CO. 2/C (NEUTRAL-WHITE, PHASE-BLACK)

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

0

-60A. MAIN

DISCONNEC

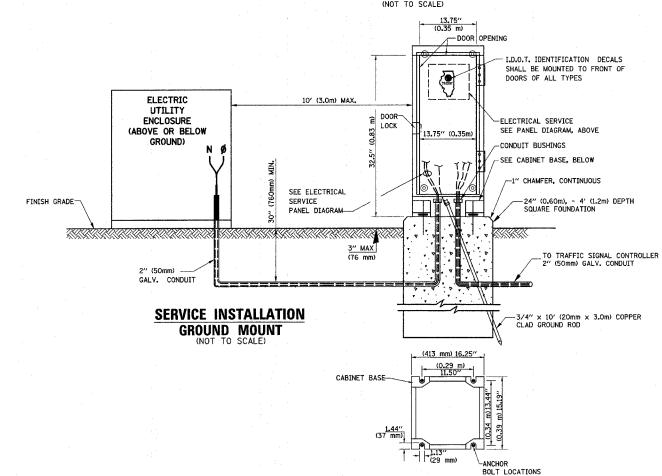
-15A. MAIN

CONNECTOR, TYP.

-STANDOFF

SERVICE INSTALLATION POLE MOUNT (SHOWN)

-1/C GROUND (GREEN COLOR CODED)



MOUNTING PLATE

MANUFACTURER

FABRICATION

TOP & BOTTOM AS PER

CABINET, SHEET ALUMINUM

CONTINUOUS PIANO HINGE-

POLE MOUNTED SERVICE

POWER INDICATOR LIGHT -INTERNALLY MOUNTED FOR-

GROUND MOUNTED SERVICE

CABINET OUTSIDE
DIMENSIONS L 6" × W 12" × H 14"

L (150mm) x W (300mm) x H (355mm

0

 \blacksquare

TO GROUND ROD-

1/C #6 (GREEN)

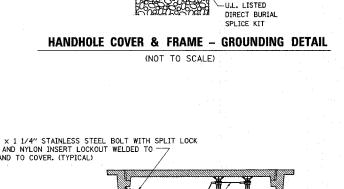
ELECTRICAL SERVICE TO

TRAFFIC SIGNAL CONTROLLER

3/4" (20mm) GALV. CONDUIT

(SEE ALL CABLE PLAN, FOR ALL CABLE SIZES)

CABINET - BASE BOLT PATTERN (NOT TO SCALE)



(GREEN)

F HANDHOLE COVER

DETAIL "A"

DETAIL "B"

RECESSED COVER

TO CONTROLLER

DOUBLE HANDHOLE

TO POLE OR

POST AS REQ'D.

SEE DETAIL "B"

HANDHOLE COVER

CAST CORNER FRAME WEB

UL LISTED GROUND-COMPRESSION CONNECTOR

UL LISTED GROUND

SEE DETAIL "A"-

REQUIRED. ALL

HANDHOLES

COMPRESSION CONNECTOR WITH STAINLESS STEEL NUT ANDHOLE FRAME

(2) 1/2" \times 1 1/4" STAINLESS STEEL BOLT WITH SPLIT LOCK WASHER AND NYLON INSERT LOCKOUT WELDED TO $\overline{}$ HEAVY DUTY COPPER COMPRESSION GROUNDING TERMINAL. (TYPICAL) EXISTING HANDHOLE GROUNDING CABLE FRAME AND COVER (PAID FOR SEPARATELY)

EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)