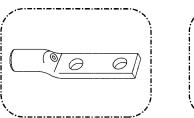
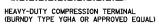
NOTES: FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT

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. IE 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.

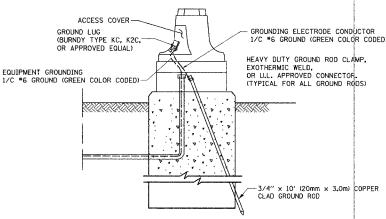






3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EUAL)

· 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.



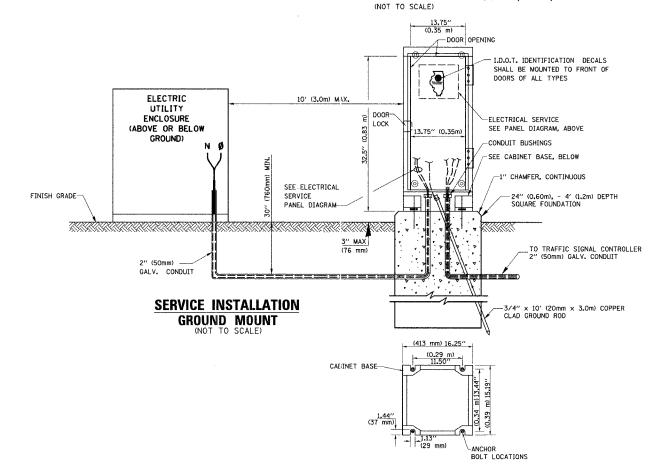
MAST ARM POLE / POST-GROUNDING DETAIL

ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS SCALE: VERT. NONE DESIGNED BY: DAD CHECKED BY: DAZ SHEET 3 OF 4 DATE 1-01-02

MOUNTING PLATE 0 0 TOP & BOTTOM AS PER-NOTES: MANUFACTURER -STANDOFF 1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508. ((1) CABINET, SHEET ALUMINUM -SURGE ARRESTOR INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL. PANELBOARD FABRICATION PRESSURE 2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED. CONNECTOR, TYP. -60A, MAI CONTINUOUS PIANO HINGE-D (SCONNEC --15A, MAIN DISCONNECT -FUSE, KLKR 1/4 A TRAFFIC SIGNAL CONTROLLER CABINET POLE MOUNTED SERVICE -PADLOCK, FURNISHED BY CABINET OUTSIDE CONTRACTOR. KEYED TO DISTRICT 1 REQUIREMENTS CIRCUIT DIMENSIONS | 6" x W 12" x H 14" BUS POWER INDICATOR LIGHT -INTERNALLY MOUNTED FOR-GROUND MOUNTED SERVICE -COMPRESSION LATCH, TYP. (2 MIN. REQ'D) -1 1/4" (30mm) DIA, COUPLING ---STRAIN RELIEF COUPLING TO GROUND ROD--SECONDARY ELECTRICAL 1/C #6 (GREEN) SERVICE BY UTILITY CO. 3/4" (20mm) GALV, CONDUIT -2/C (NEUTRAL-WHITE, PHASE-BLACK) ELECTRICAL SERVICE TO

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

-1/C GROUND (GREEN COLOR CODED)



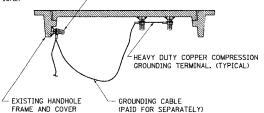
TRAFFIC SIGNAL CONTROLLER

(SEE ALL CABLE PLAN, FOR ALL CABLE SIZES)

CABINET - BASE BOLT PATTERN

WASHER AND NYLON INSERT LOCKOUT WELDED TO FRAME AND TO COVER. (TYPICAL)

(2) 1/2" x 1 1/4" STAINLESS STEEL BOLT WITH SPLIT LOCK



HANDHOLF COVER

DETAIL "A"

DETAIL "B"

RECESSED COVER

-U.L. LISTED

DIRECT BURIAL

- GROUND CABLES TO CONTROLLER DOUBLE HANDHOLE

TO POLE OR

POST AS REQ'D.

SEE DETAIL "B"

HANDHOLE COVER HANDLE

CAST CORNER FRAME WEB-

-STAINLESS STEEL NUT AND 2 STAINLESS STEEL WASHERS

SEE DETAIL "A"-

CABLE HOOKS REQUIRED, ALL HANDHOLES

UL LISTED GROUND -COMPRESSION CONNECTOR

UL LISTED GROUND COMPRESSION CONNECTOR — WITH STAINLESS STEEL NUT

-1/0 #6

(GREEN)

HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)

HANDHOLE FRAME

EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)

TS05