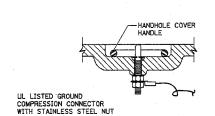


**CABINET - BASE BOLT PATTERN** (NOT TO SCALE)

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508.

CAST CORNER FRAME WEB-ULLISTED GROUND...

COMPRESSION CONNECTOR ANTI-CORROSION COMPOUND SHALL BE APPLIED ON ALL BOLT/ CONNECTION ASSEMBLIES. -STAINLESS STEEL NUT AND 2 STAINLESS STEEL WASHERS

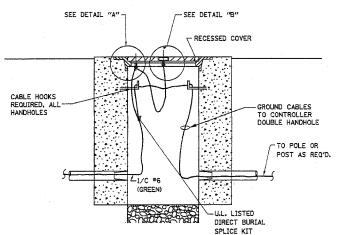


DETAIL "B"

- HANDHOLE COVER

DETAIL "A"

HANDHOLE FRAME



## HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)

(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 ← FXTSTING HANDHOLF. - GROLINDING CARLE (PAID FOR SEPARATELY)

## EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL

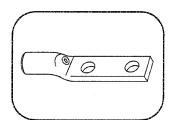
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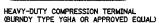
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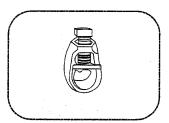
RIE.	SECTION		TNUO:	Υ	SHEETS	NO.
577	3114N-1		COO	K	7)2	39
STA		_ T0	STA			
FED. ROAD	DEST. NO	ILLINOIS	FED.	AID	PROJECT	

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" 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 (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.



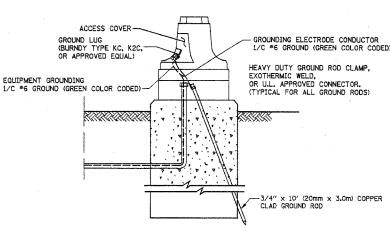




3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EUAL)

DRAWN BY RWP
DESIGNED BY DAD
CHECKED BY DAZ
SHEET 3 OF 4

· 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 ONE STON ENGINEERING STANDARD TRAFFIC SIGNAL DESIGN DETAILS 19 S. BOTHWELL STREET PALATINE, ILLINOIS 60067 SCALE: N.T.S. DATE 01-22-07