

GROUND ELECTRODE MEASUREMENT

SCOPE:

GROUNDING TESTS SHALL BE DONE FOR MANHOLE GROUNDS, GROUND ROD CONNECTIONS AND COUNTERPOISE CONNECTIONS TO ENSURE THE INTEGRITY OF THE ELECTRODE INSTALLATION. TESTING OF THE GROUND SYSTEM AND CONNECTIONS SHALL BE DONE USING THE CLAMP-ON RESISTANCE TEST METHOD FOR GROUND RODS AND COUNTERPOISE.

CLAMP-ON GROUND RESISTANCE TEST (NORMAL TEST) / THREE POINT FALL OF POTENTIAL TEST (NORMAL TEST)

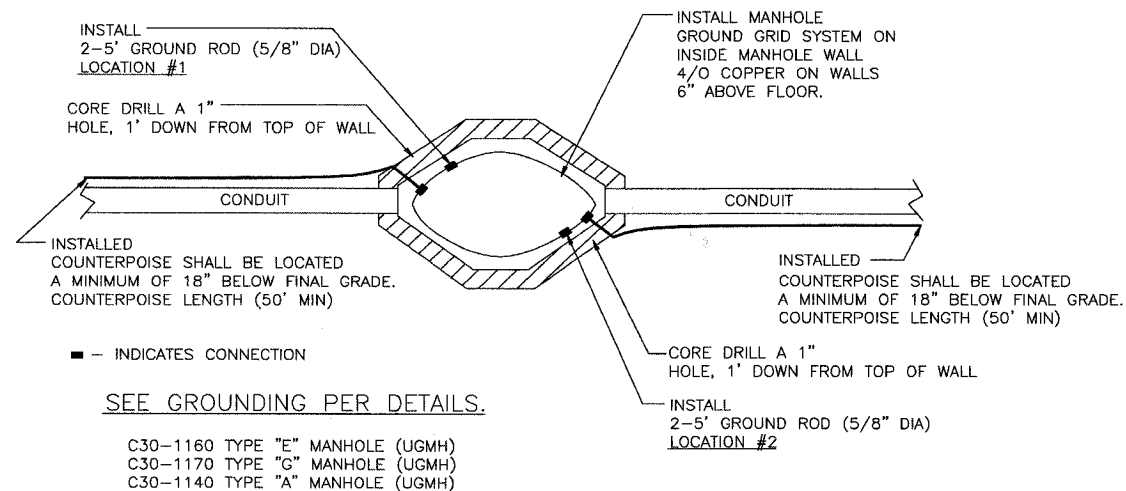
TESTS SHALL BE PERFORMED WHEN THE GROUND IS NOT FROZEN TO ELIMINATE HIGH RESISTANCE READINGS IN THE MANHOLES. THE CLAMP ON TEST SHALL BE DONE AT EACH GROUND ROD AND COUNTERPOISE CONNECTION AND FROM THE MANHOLE PERIMETER GROUND CABLE TO THE GROUND ROD. AEMC INSTRUMENT MODEL 3710, 3730, OR EQUIVALENT MAY BE USED. THE CLAMP ON GROUND METER SHALL CLAMPED ON TO THE POWER NEUTRAL BETWEEN THE UTILITY TRANSFORMER, POLE GROUND, SWITCH GEAR GROUND AND THE SITE GROUND. THE USER MUST BE AWARE THAT A 0.7 READING INDICATES A CONTINUITY LOOP AND NOT A GROUND RESISTANCE. IF A POWER NEUTRAL IS NOT CLOSE TO THE NEW INSTALLATION THEN THE THREE POINT FALL OF POTENTIAL GROUND RESISTANCE CAN BE USED.

ALL TESTING MATERIAL AND TOOLS ARE FURNISHED BY THE CONTRACTOR. THIS SPECIFICATION IS USED TO TEST HANDHOLES, SWITCH GEAR VAULTS, MANHOLES, TRANSFORMER VAULTS AND OTHER EQUIPMENT AS DIRECTED.

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CLAMP ON METER TEST STANDARD MANHOLE

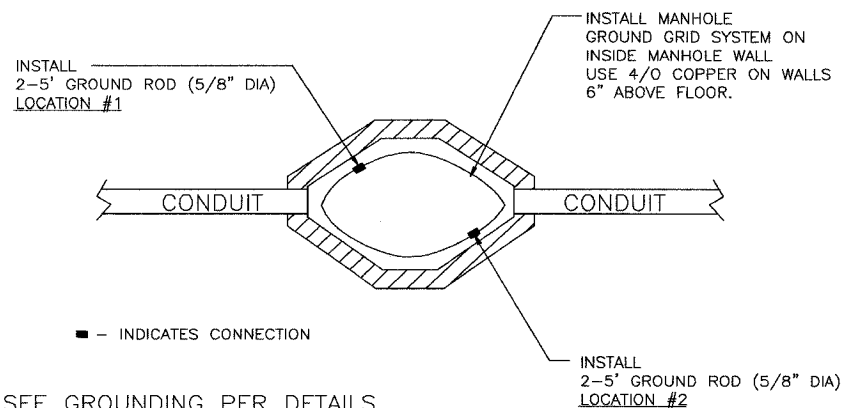
(GROUNDING WITH GROUND RODS AND COUNTERPOISE)



TOP VIEW

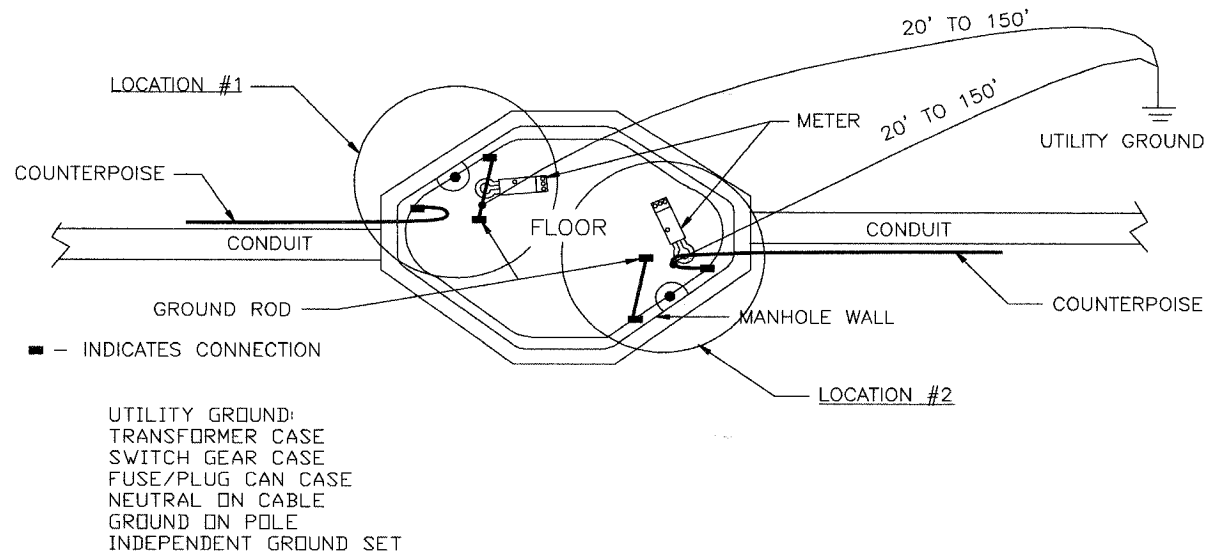
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STANDARD MANHOLE (GROUNDING WITH RODS)



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PLACEMENT OF METER FOR READING



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F.A. RTE. 2552	SECTION 00-0014-00-PV	COUNTY DUPAGE	TOTAL SHEETS 563	SHEET NO. 282
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		
CONTRACT 63024				

WF# INFORMATION		CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC			
WF# 59481 WASHINGTON ST. 75TH TO OLYMPIUS DR. EAST SIDE	JOB 1 EU-73	CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION			
WF# 59482 75TH WASHINGTON ST. TO OLYMPIUS DR. NORTH SIDE	JOB 2 EU-73	PROJECT TITLE 75TH ST. AND WASHINGTON ST. ROAD IMPROVEMENTS	MAP NO. -	CAD FILE: D056270001D41.DWG	
WF# 59484 75TH WASHINGTON ST. TO CLYDE DR. SOUTH SIDE	JOB 3 EU-73	PROJECT DESCRIPTION TRENCH SECTION DETAILS	ISSUED	DATE 4-01-08	WORK REQUEST NO. 56270
WF# 59485 WASHINGTON ST. 75TH TO BAILEY RD. EAST SIDE	JOB 4 EU-73	ENGINEER RPS	APPROVED	SCALE NTS	COMPLETED BY: SHEET 41 OF 73