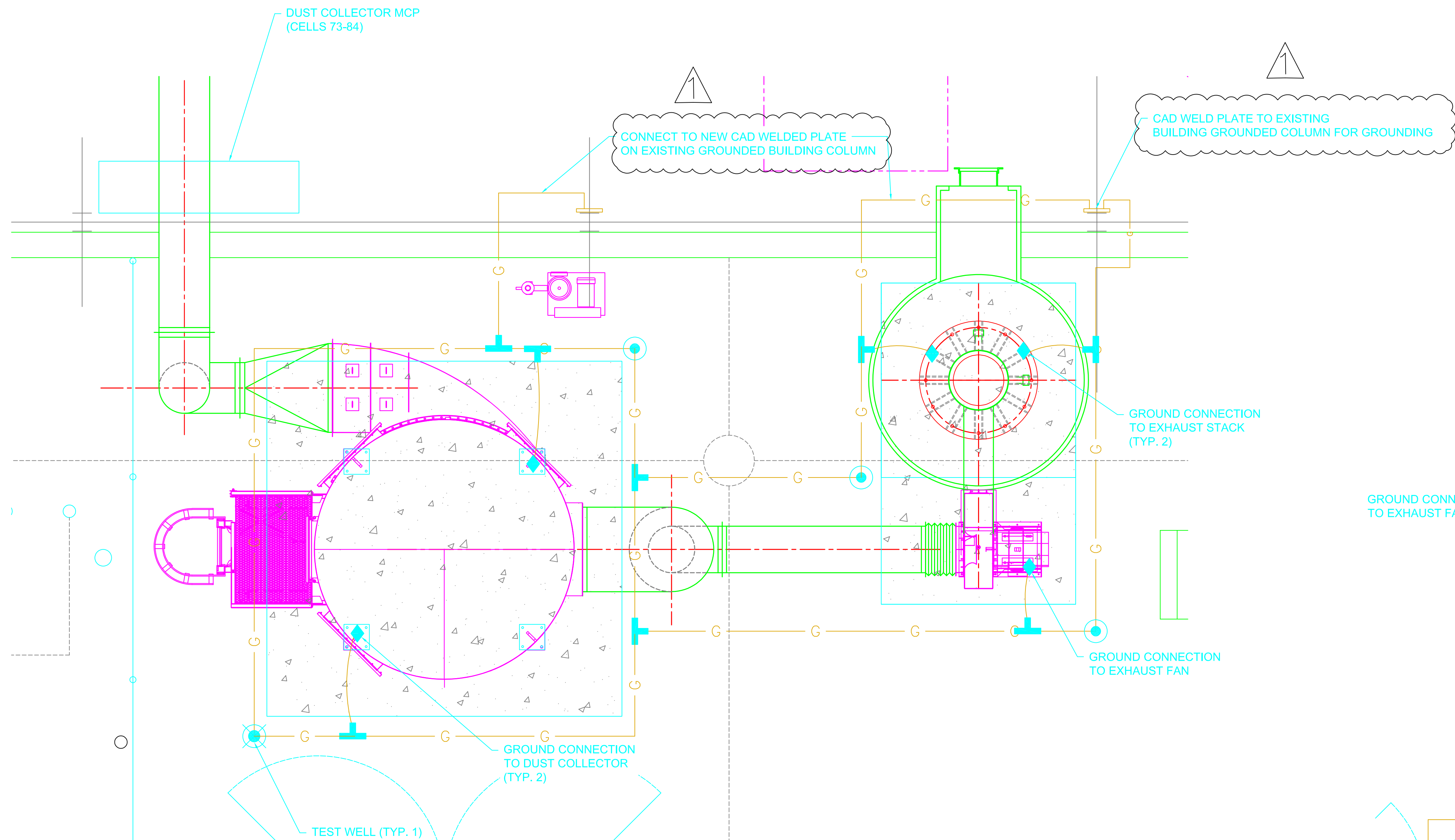


C:\Users\jordan\Documents\2400694 DETROIT DIESEL TEST CELL EXH\Project Files\10 CAD Rev\07-3 Proc Elec\2400694DE1-01-02.dwg 5/30/2025 12:40:30 PM D.JORDAN GHAFARI ASSOCIATES © 2025



PROCESS EXHAUST ELECTRICAL GROUNDING DIAGRAM (TEST CELLS 73- 84)

SCALE: 1/16"=1'-0"

GROUNDING LEGEND



EXOTHERMIC WELD T CONNECTION



EXOTHERMIC WELD X CONNECTION



ELECTRICAL EQUIPMENT CONNECTION - 10'-0" OF #4/0 BARE COPPER GROUND CONDUCTOR FOR EACH CONNECTION. 1" SCHEDULE 80 PVC CONDUIT UP THROUGH CONCRETE PAD FOR CONNECTION TO THE DUST COLLECTOR, EXHAUST FAN AND EXHAUST STACK AS SHOWN.



GROUND ROD MIN. 3/4" X 15'-0" LONG



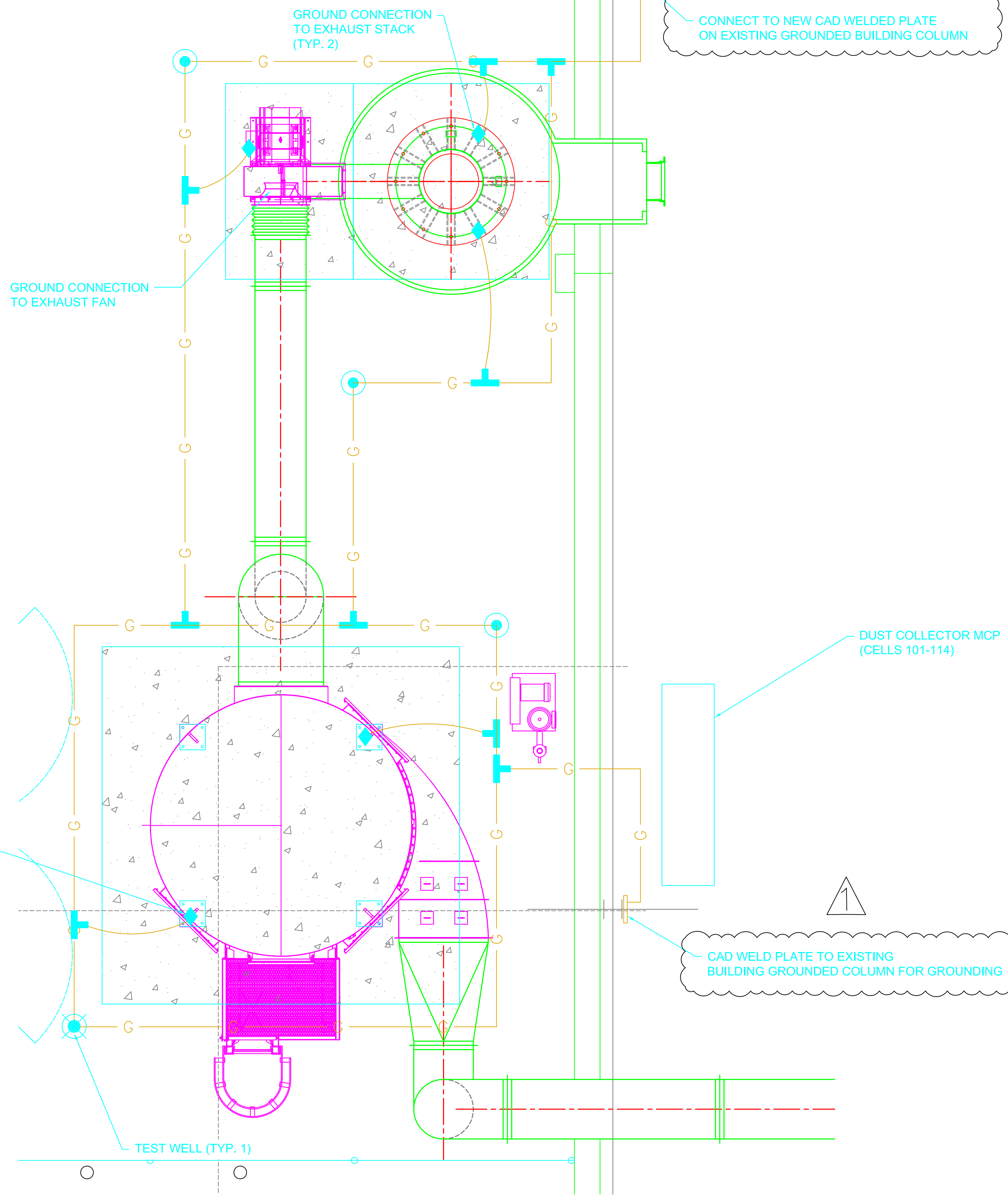
TEST WELL



UNDERGROUND GROUND WIRE (BARE #4/0 COPPER)

GENERAL GROUNDING NOTES:

1. THE CONTRACTOR SHALL SUPPLY AND INSTALL GROUNDING JUMPERS FROM THE DUST COLLECTOR TO ALL NEW DUCTWORK. THESE JUMPERS ORIGINATE FROM THE DUST COLLECTOR AND WILL GROUND EACH SECTION OF THE DUCT WITH BONDING JUMPERS. DUST COLLECTOR EQUIPMENT COMPONENTS SHALL BE ELECTRICALLY INTER-CONNECTED AND GROUNDED. THE SECTIONS OF THE STACK SHALL ALSO INCLUDE BONDING JUMPERS TO GROUND ALL SECTIONS AND LADDER.
2. CONDUIT/WIRE ROUTING IS SHOWN FOR DIAGRAMMATIC PURPOSES ONLY. EXACT ROUTING SHALL BE FIELD COORDINATED.
3. CONTRACTOR SHALL PROVIDE ALL MATERIALS REQUIRED TO INSTALL A COMPLETE GROUNDING IN ACCORDANCE WITH ALL LOCAL CODES AND NFPA 780.
4. TEST RESISTANCE OF GROUNDING SYSTEM. FACILITY GROUND LOOP SHALL HAVE A RESISTANCE OF LESS THAN 5 OHMS. AFTER CONNECTION OF THE STATIC DISSIPATION GROUNDING SYSTEM, THE SYSTEM SHALL HAVE A RESISTANCE OF LESS THAN 1 OHM.
5. CONTRACTOR SHALL DRIVE GROUND RODS TO APPROPRIATE DEPTH IN ORDER TO OBTAIN SPECIFIED MAXIMUM PERMISSIBLE GROUND RESISTANCE.
6. ALL BENDS IN GROUNDING CONDUCTORS SHALL HAVE A MINIMUM BEND RADIUS OF 12".
7. PROVIDE SUFFICIENT SLACK OF GROUNDING CABLES IN THE TEST STATION SO THAT EACH GROUND ROD CAN BE DISCONNECTED FROM THE GROUNDING GRID WITH PROVISIONS TO TEST FOR RESISTANCE TO EARTH BY STANDARD METHODS.
8. GROUNDING CONNECTIONS SHALL BE MADE AS FOLLOWS:
 - A. CABLE TO CABLE - EXOTHERMIC WELD.
 - B. CABLE TO GROUND RODS - EXOTHERMIC WELD, EXCEPT AT TEST STATIONS.
 - C. CABLE TO DUST COLLECTOR STACK AND FAN - CADWELD TO LUG, BOLT LUG TO DUST COLLECTOR, STACK AND FAN.
9. GROUNDING CONDUCTORS SHALL BE COILED 10 FEET OR MORE AND PROTECTED FROM DAMAGE FOR ALL CONNECTIONS.
10. BOND ALL METAL STRUCTURES AND PIPING TO GROUND LOOP.
11. WHERE GROUND CONDUCTORS PASS THROUGH CONCRETE SLABS, PROVIDE 1" SCHEDULE 80 PVC SLEEVE FOR CABLE TRANSITION. SEAL SLEEVE WATERTIGHT AFTER CABLE INSTALLATION.
12. ALL METAL CONDUITS CONTAINING GROUND CONDUCTORS SHALL BE FITTED WITH GROUND BUSHINGS WHERE THE CONDUITS TERMINATE.
13. #4/0 BARE COPPER GROUND CONDUCTOR, 30" MINIMUM BELOW GRADE, 5' FROM EDGE OF CONCRETE SLAB.



PROCESS EXHAUST ELECTRICAL GROUNDING DIAGRAM (TEST CELLS 101-114)

SCALE: 1/16"=1'-0"



DETROIT DIESEL
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REDFORD TOWNSHIP, MI 48239

TEST CELL EXHAUST
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CONSULTANT INFORMATION

REGISTRATION SEAL

NOT FOR CONSTRUCTION

01	05/30/25	ADDENDUM #1
00	05/08/25	ISSUED FOR BID
REV	DATE	DOC REL ## - DESCRIPTION

PROJECT # 2400694.001
PROJECT MANAGER G. GORKOWSKI
DESIGNED BY D. JORDAN
DRAWN BY D. GIELAROWSKI
QUALCHECK D. WOOD
SHEET TITLE

**TEST CELLS
PROCESS EXHAUST
ELECTRICAL GROUNDING
LAYOUT**

DE1-01-02
SHEET NUMBER