

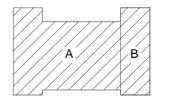


GREATER LYNCHBURG TRANSIT COMPANY
 1301 Kemper Street PO Box 707
 Lynchburg, VA 24505-0707

PROJECT ADDRESS:
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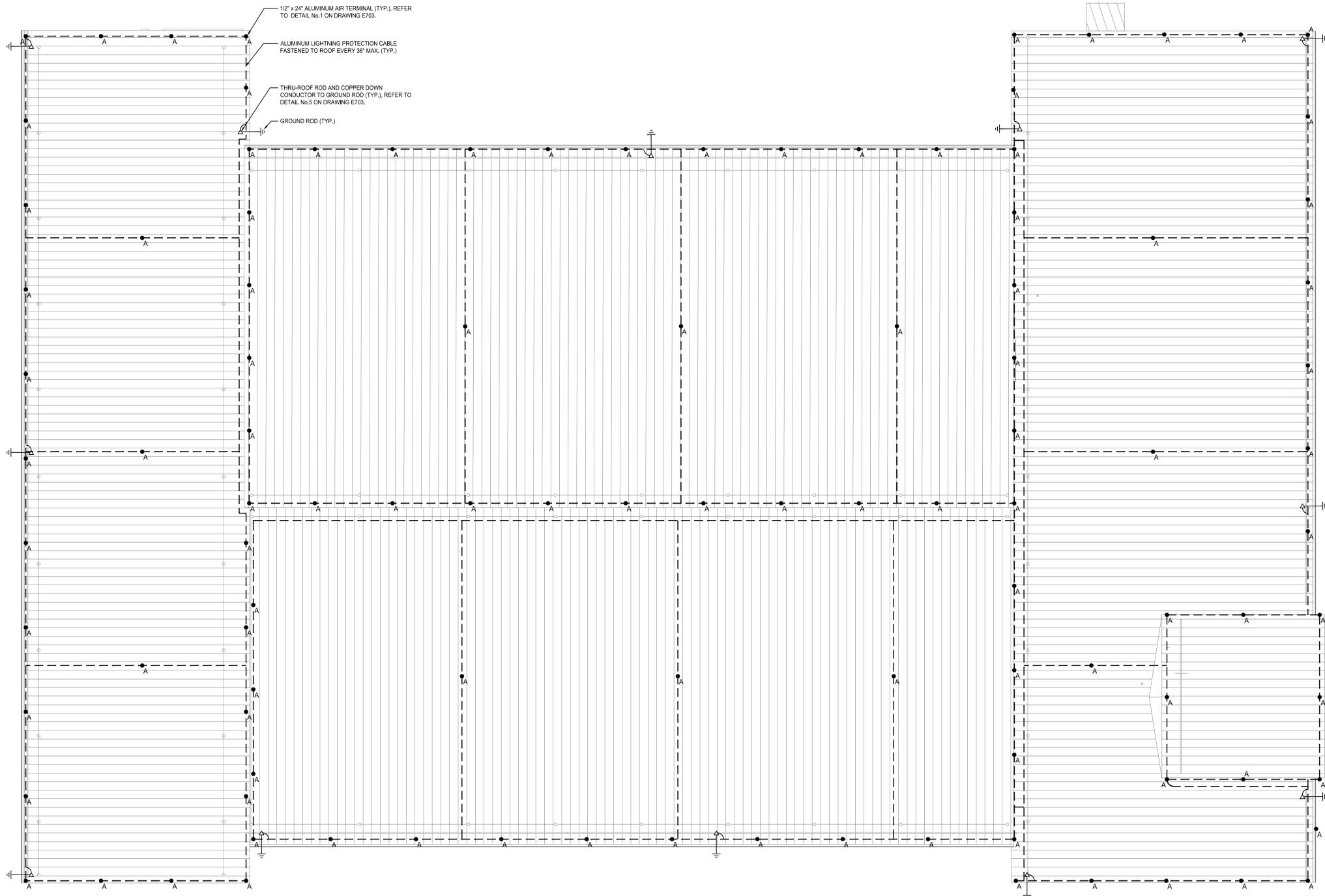
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KEY PLAN

NOTE:
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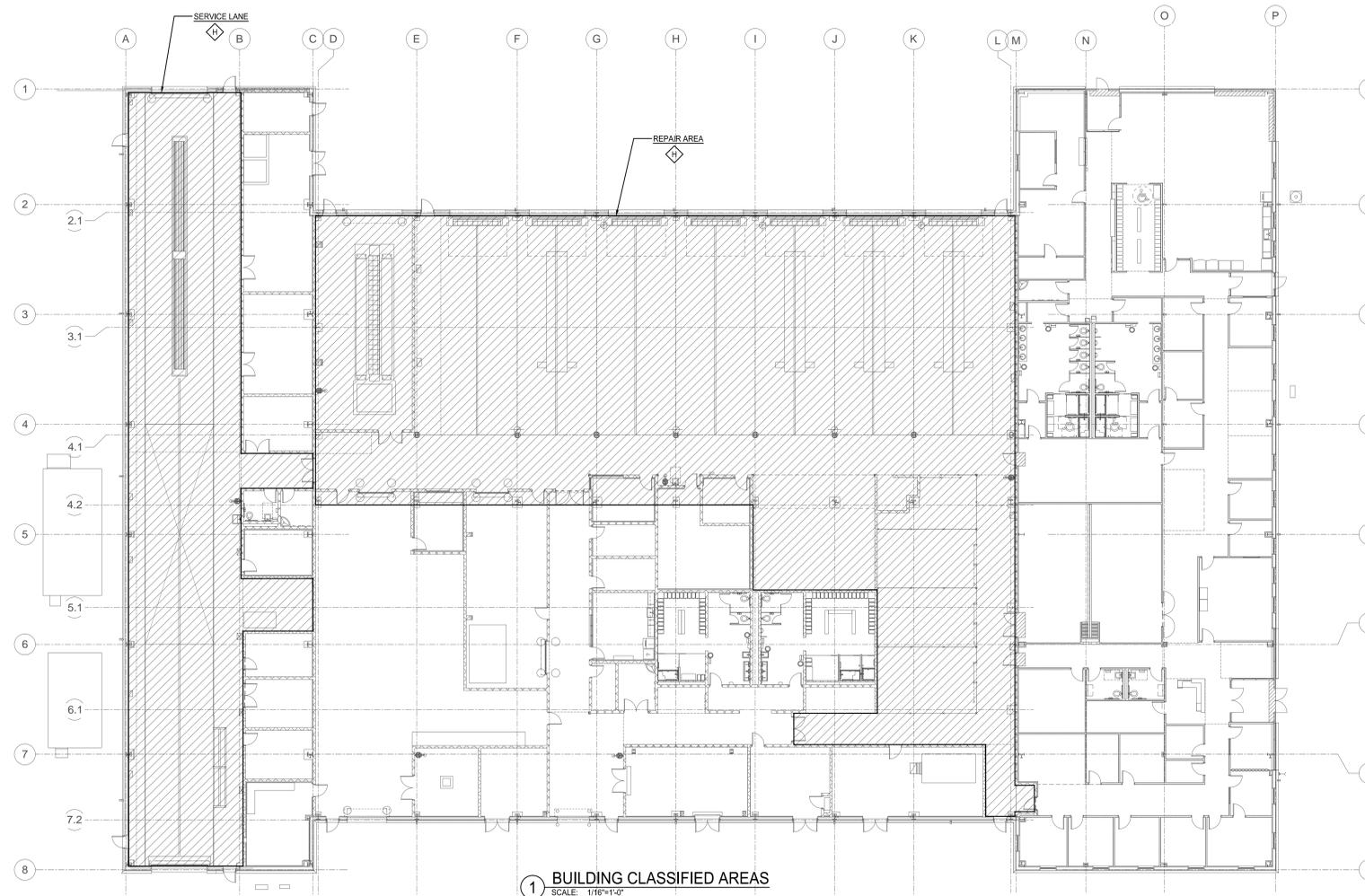
1 LIGHTNING PROTECTION SYSTEM LAYOUT
 SCALE: 3/32" = 1'-0"

NO.	REVISION	DATE	BY	CHK.	APP.

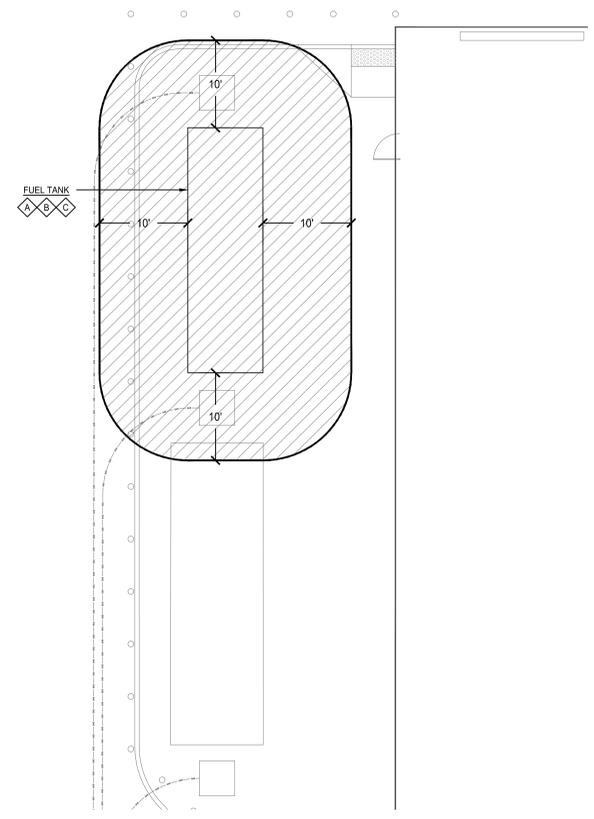
LIGHTNING PROTECTION LAYOUT

DATE	09/24/2014
SCALE	AS NOTED
CHK.	RB
APP.	PTV
PROJECT NO.	444205
DWG. NO.	E700

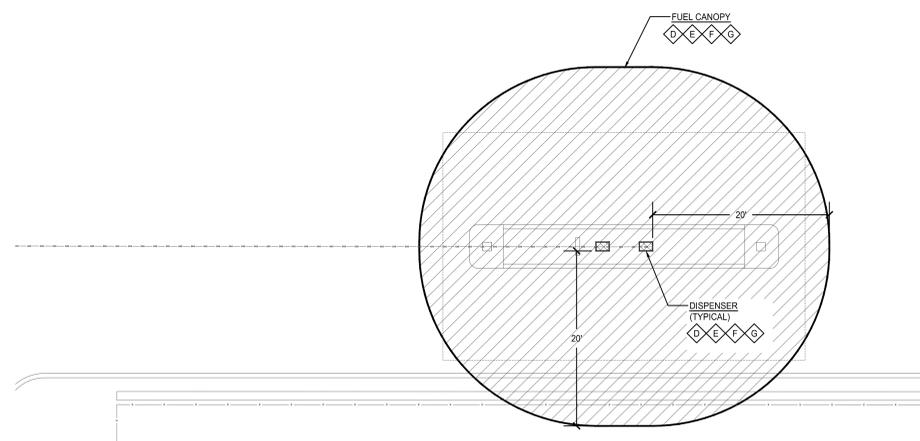
E700



1 BUILDING CLASSIFIED AREAS
SCALE: 1/16"=1'-0"



2 FUEL STORAGE CLASSIFIED AREAS
SCALE: 1/8"=1'-0"



3 FUELING CANOPY CLASSIFIED AREAS
SCALE: 1/8"=1'-0"

GENERAL NOTES:

- A. PROVIDE CONDUIT SEAL-OFF FITTINGS FOR ALL ELECTRICAL CONDUITS AS REQUIRED PER NFPA 70 SECTION 515. REFER TO DRAWING E801 FOR ADDITIONAL DETAILS.
- B. FOR AREAS MARKED FOR HAZARD CLASS 1, DIV. 2, CLASS 1, GROUP D, DIVISION 1 & 2, CONPLY WITH NFPA 70 ARTICLES 501 & 514 FOR ALL CONDUITS ROUTED INTO, PASSING THRU & TERMINATING IN THE CLASSIFIED AREAS. PROVIDE GRS RACEWAY INSTALLATION WITH SEAL-OFF FITTINGS AT BOTH ENDS OF FOR CONDUITS STUBBED UP AT ISLAND CANOPY STRUCTURE.
- C. ALL EQUIPMENT INSTALLED IN THE HAZARDOUS AREA AS NOTED ON HAZARD NOTES ON THIS DRAWING SHALL BE LISTED FOR INSTALLATION WITHIN THE CLASSIFIED AREA THAT IT IS GOING IN.

HAZARDOUS AREA NOTES:

- A ABOVEGROUND TANK - SHELL, ENDS, ROOF, DIKE AREA
CLASS 1, GROUP D, DIVISION 1 LOCATION
Entire space within dike, where dike height exceeds distance from tank shell to inside of dike wall for more than 50 percent of tank circumference.
CLASS 1, GROUP D, DIVISION 2 LOCATION
Entire space within dike, where dike height does not exceed distance from tank shell to inside of dike wall for more than 50 percent of tank circumference.
- B ABOVEGROUND TANK - VENT DISCHARGING UPWARD
CLASS 1, GROUP D, DIVISION 1 LOCATION
Area within 5ft of open end of vent, extending in all directions.
CLASS 1, GROUP D, DIVISION 2 LOCATION
Space between 5ft to 10ft of open end of vent, extending in all directions.
- C REMOTE PUMP - OUTDOOR
CLASS 1, GROUP D, DIVISION 1 LOCATION
Any pit, box, or space below grade level if any part of it is within a horizontal distance of 10ft from any edge of pump.
CLASS 1, GROUP D, DIVISION 2 LOCATION
Area within 5ft of any edge of pump, extending in all directions. As well as area up to 18" above grade level within 10ft horizontally from any edge of pump.
- D DISPENSING DEVICE - PITS
CLASS 1, GROUP D, DIVISION 1 LOCATION
Any pit, box, or space below grade level if any part of which is within the Division 1 or 2 classified location.
- E DISPENSING DEVICE - DISPENSER
CLASS 1, GROUP D, DIVISION 1 LOCATION
Space classification inside of the dispenser enclosure is covered in ANSUL 87, "Power Operated Dispensing Devices for Petroleum Products."
CLASS 1, GROUP D, DIVISION 2 LOCATION
Area within 18" horizontally in all directions extending to grade from
(1) The dispenser enclosure
(2) Part of the dispenser enclosure containing liquid handling components
Space classification inside of the dispenser enclosure is covered in ANSUL 87, "Power Operated Dispensing Devices for Petroleum Products."
- F DISPENSING DEVICE - DISPENSER
CLASS 1, GROUP D, DIVISION 2 LOCATION
Area up to 18" above grade level within 20ft horizontally of any edge of enclosure.
- G DISPENSING DEVICE - OUTDOOR
CLASS 1, GROUP D, DIVISION 2 LOCATION
Area up to 18" above grade level within 20ft horizontally of any edge of enclosure.
- H REPAIR GARAGE - MAJOR REPAIR (NO DISPENSING)
STORAGE AND/OR REPAIR OF VEHICLES THAT UTILIZE LIGHTER-THAN-AIR GASEOUS FUELS (CNG)
CLASS 1, GROUP D, DIVISION 2 LOCATION
Area within 18" of the ceiling.

- CLASS 1, DIVISION 1
- CLASS 1, DIVISION 2



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DATE: 09/24/2014
SCALE: AS NOTED
DWG. NO.: 444205

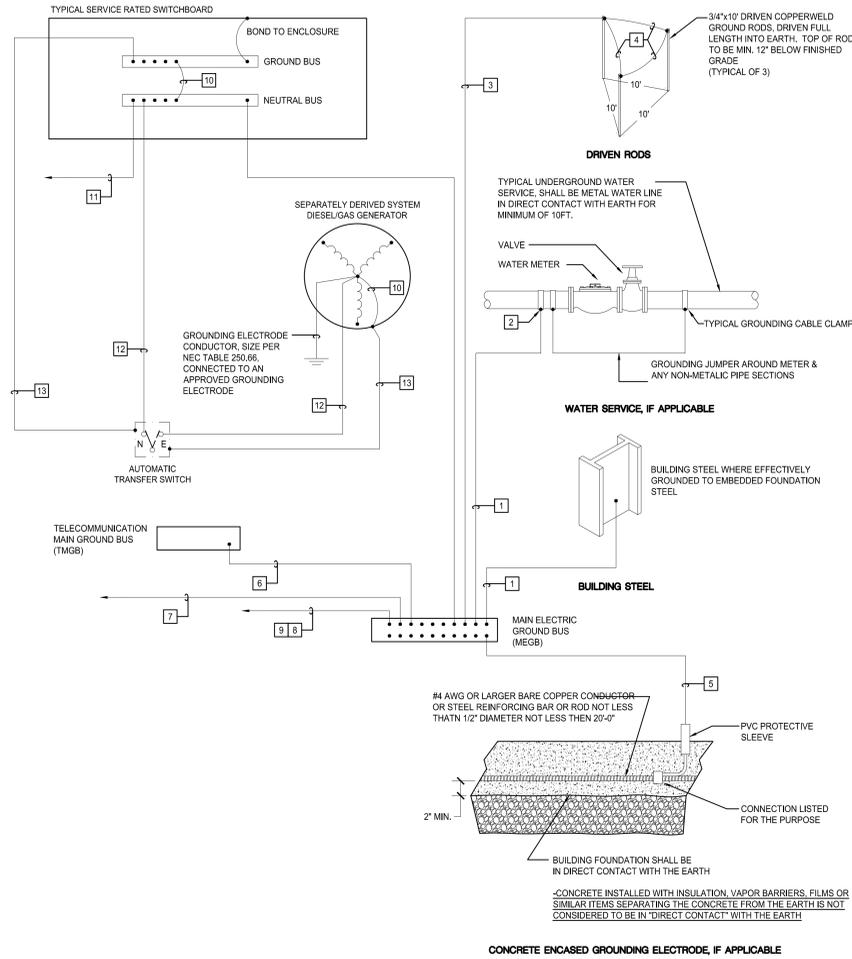
CLASSIFIED AREAS PLAN

DATE: 09/24/2014
SCALE: AS NOTED
DWG. NO.: 444205

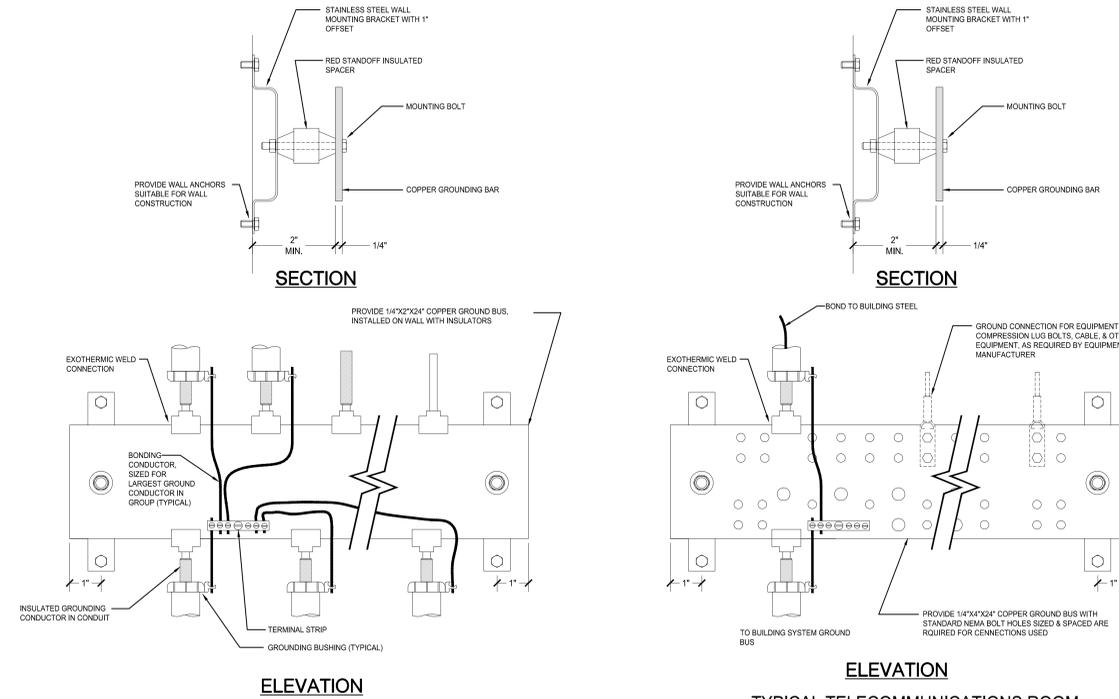
E702

DETAIL NOTES:

1. THE GROUNDING ELECTRODE CONDUCTORS SHALL BE SIZED PER NEC TABLE 250.66. THE CONDUCTOR SHALL BE CONNECTED TO AN APPROVED GROUNDING ELECTRODE.
2. CONNECTION SHALL BE MADE WITHIN 5'-0" OF THE BUILDING ENTRANCE PER NEC 250.52(A)(1).
3. GROUND ROD ELECTRODE - PROVIDE PER NEC 250.66(A). PROVIDE 60V CONDUCTOR IN PVC RACEWAY.
4. BONDING CONDUCTOR, #4/0 BARE COPPER GROUNDING CONDUCTOR, INSTALL MIN. 12" BELOW FINISHED GRADE (TYPICAL).
5. GROUNDING ELECTRODE SYSTEM CONDUCTOR, SIZED PER NEC TABLE 250.66.
6. GROUND CONDUCTOR TO TELECOMMUNICATIONS MAIN GROUND BUS, PROVIDE MINIMUM 4/0 AWG.
7. PROVIDE GROUND TO OTHER POINTS & EQUIPMENT AS REQUIRED BY NEC ARTICLE 250 & SPECIFICATIONS.
8. PROVIDE BONDING FOR METAL WATER PIPING & STRUCTURAL STEEL THAT IS NOT INTENTIONALLY GROUNDED PER NEC 250.104 & NEC TABLE 250.66.
9. PROVIDE BONDING FOR OTHER METAL PIPING SUCH AS GAS, & ETC. PER NEC 250.104 & NEC TABLE 250.122.
10. MAIN BONDING JUMPER SIZED PER NEC TABLE 250.66.
11. MAIN SERVICE PHASE CONDUCTORS WITH GROUNDED NEUTRAL CONDUCTOR(S).
12. GROUNDED NEUTRAL CONDUCTOR(S).
13. EQUIPMENT GROUND CONDUCTOR, SIZED PER NEC TABLE 250.122.

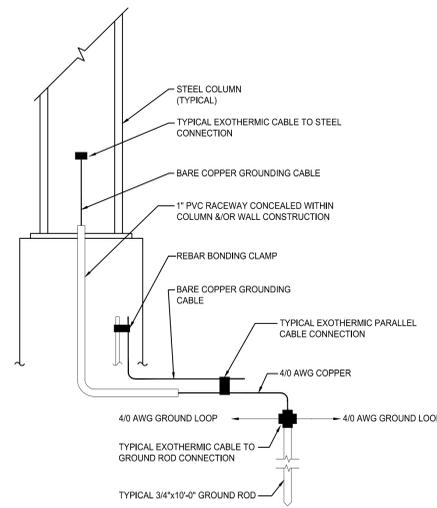


1 TYPICAL SERVICE GROUNDING ELECTRODE SYSTEM WIRING DIAGRAM
SCALE: NO SCALE



2 BUILDING SYSTEM GROUND BUS DETAIL (MEGB)
SCALE: NO SCALE

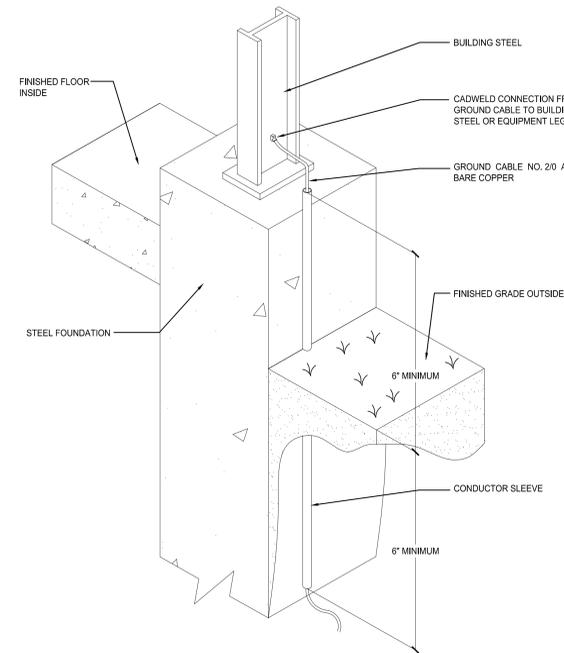
3 TYPICAL TELECOMMUNICATIONS ROOM EQUIPMENT GROUNDING BUS DETAIL (TMGB)
SCALE: NO SCALE



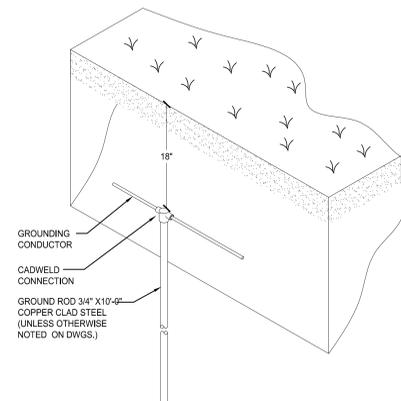
NOTES:

- ALL GROUNDING CONNECTIONS SHALL BE IN CONFORMANCE WITH N.E.C. ARTICLE 250.
- FOR ALL ADDITIONAL REQUIREMENTS REFER TO GROUNDING SPEC SECTIONS IN DIVISION 26.

3 TYPICAL STEEL COLUMN & REBAR GROUNDING DETAIL
SCALE: NO SCALE



4 GROUND CONNECTION DETAIL
SCALE: NO SCALE



5 TYPICAL GROUND ROD INSTALLATION DETAIL
SCALE: NO SCALE



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Revision Number: _____
Revision Description: _____
Revision Date: _____

ELECTRICAL GROUNDING DETAILS

DATE: 09/24/2014
SCALE: AS NOTED
DRAWN: RB
CHECKED: PTV
PROJECT NO.: 444205
DWG. NO.:

E800



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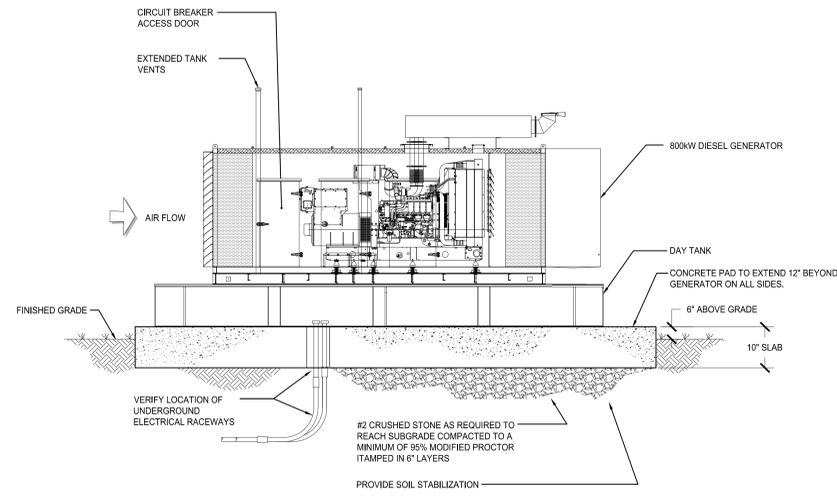
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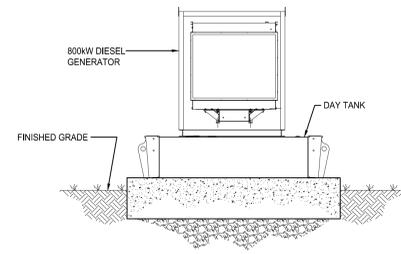
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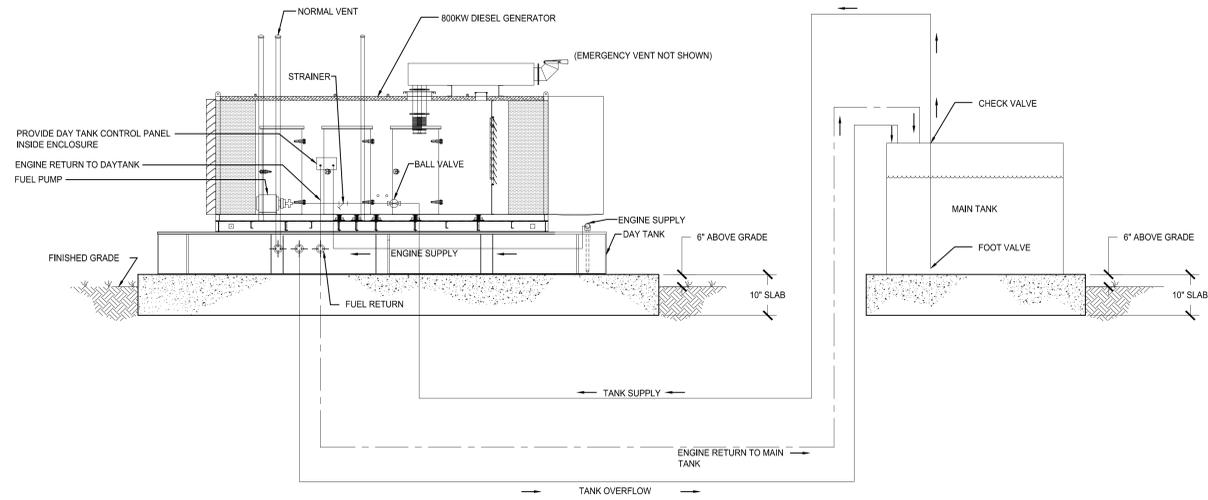
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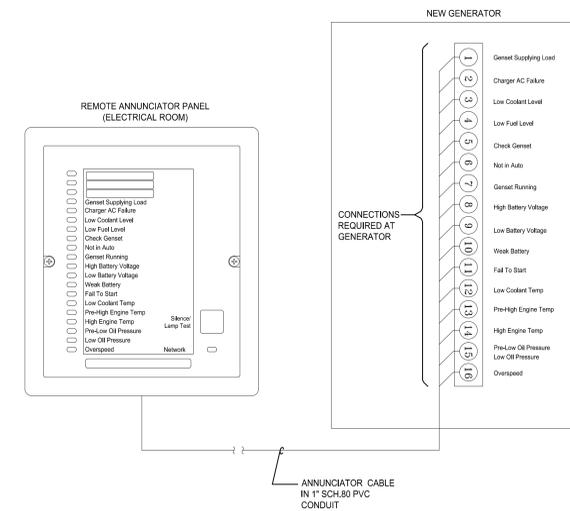
1 GENERATOR & PAD DETAIL (SIDE VIEW)
 SCALE: NONE



2 GENERATOR & PAD DETAIL (END VIEW)
 SCALE: NONE



3 FUELING INTERCONNECTIONS DAYTANK WITH MAINTANK
 SCALE: NONE



4 GENERATOR REMOTE ANNUNCIATOR WIRING DETAIL
 SCALE: NONE

NOTES
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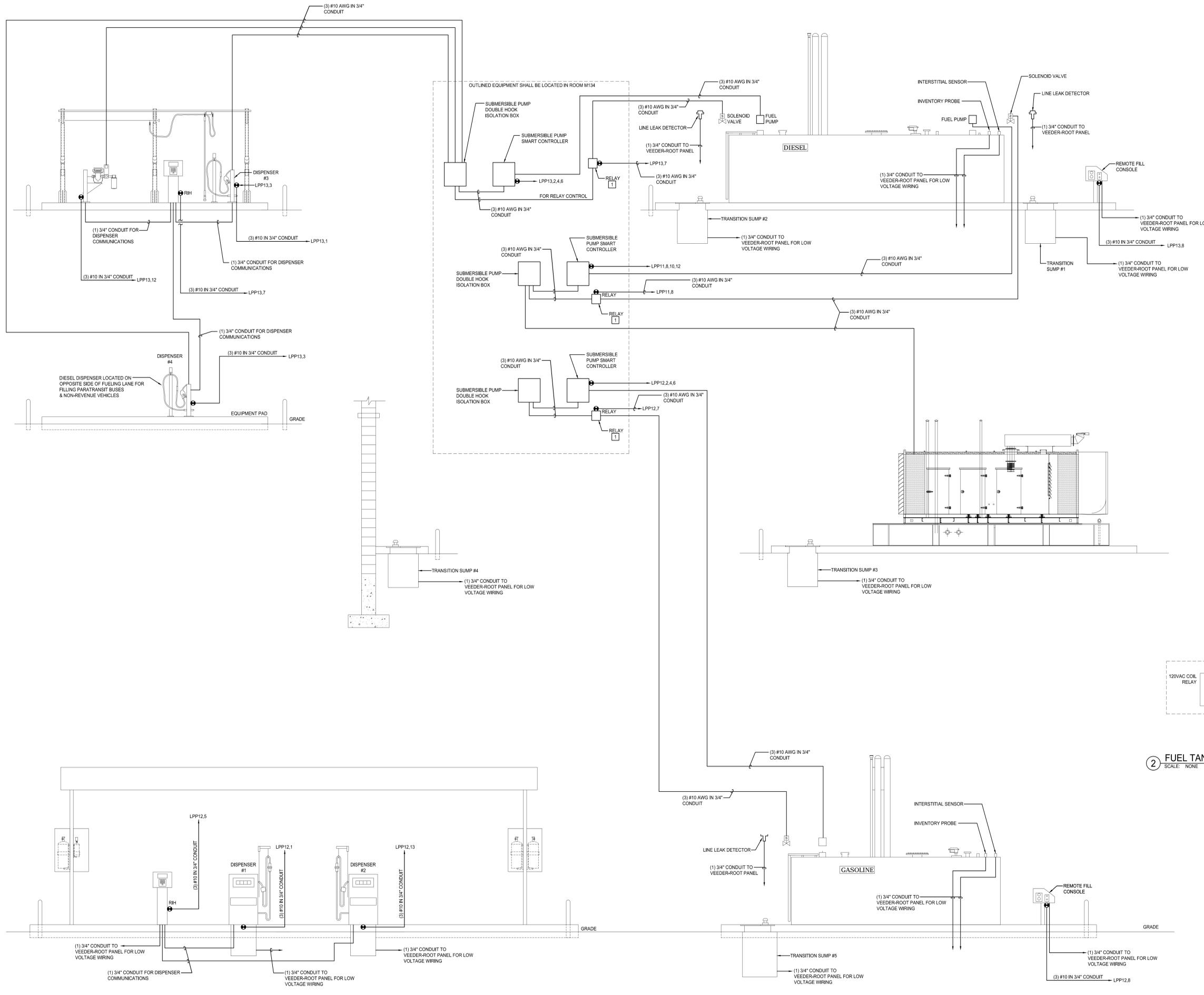


DATE: 09/24/2014
 SCALE: AS NOTED
 DWG. NO.: 444205
 DESIGNED BY: VB
 CHECKED BY: PTV

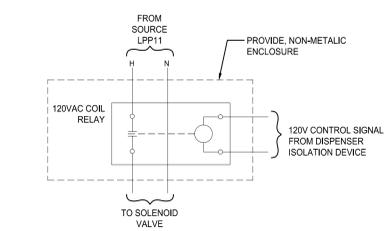
GENERATOR DETAILS

DATE: 09/24/2014
 SCALE: AS NOTED
 DWG. NO.: 444205
 DESIGNED BY: VB
 CHECKED BY: PTV

E803



1 FUEL DISPENSING SYSTEM SCHEMATIC
SCALE: NONE



2 FUEL TANK SOLENOID RELAY DETAIL
SCALE: NONE

GENERAL NOTES:

- VERIFY EXACT LOCATION OF ALL FUEL DISPENSING EQUIPMENT PRIOR TO INSTALLATION. SOME OF THE INDICATED WIRING SHALL BE INSTALLED OUTSIDE OR UNDERGROUND. SOME SHALL BE INSTALLED BELOW & THRU CLASSIFIED AREAS.
- REFER TO DRAWING E702 FOR EXTENDS OF CLASSIFIED AREAS AROUND FUEL DISPENSING EQUIPMENT.
- ALL WIRING INSTALLED IN CLASSIFIED AREAS SHALL BE LISTED FOR USE IN THAT SPECIFIC CLASSIFIED AREA.

CONSTRUCTION NOTES:

- PROVIDE RELAY IN THE ENCLOSURE TO CONTROL SOLENOID VALVE. RELAY SHALL BE RATED FOR 20A, 120VAC & HAVE 120V COIL. REFER TO DETAIL No. 2 ON THIS DRAWING FOR ADDITIONAL INFORMATION.



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GASOLINE & DIESEL DISPENSING
SCHEMATIC PLAN - POWER

DATE: 09/24/2014
SCALE: AS NOTED
DRAWN: RB
CHECKED: PTV
PROJECT NO.: 444205
DRAWING NO.:

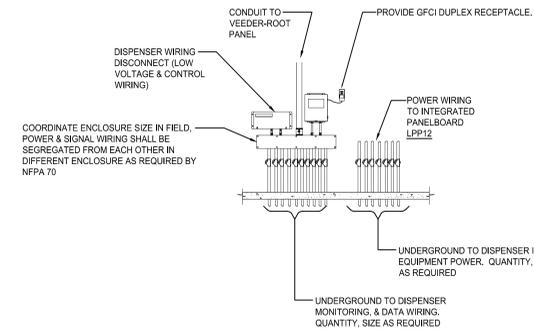
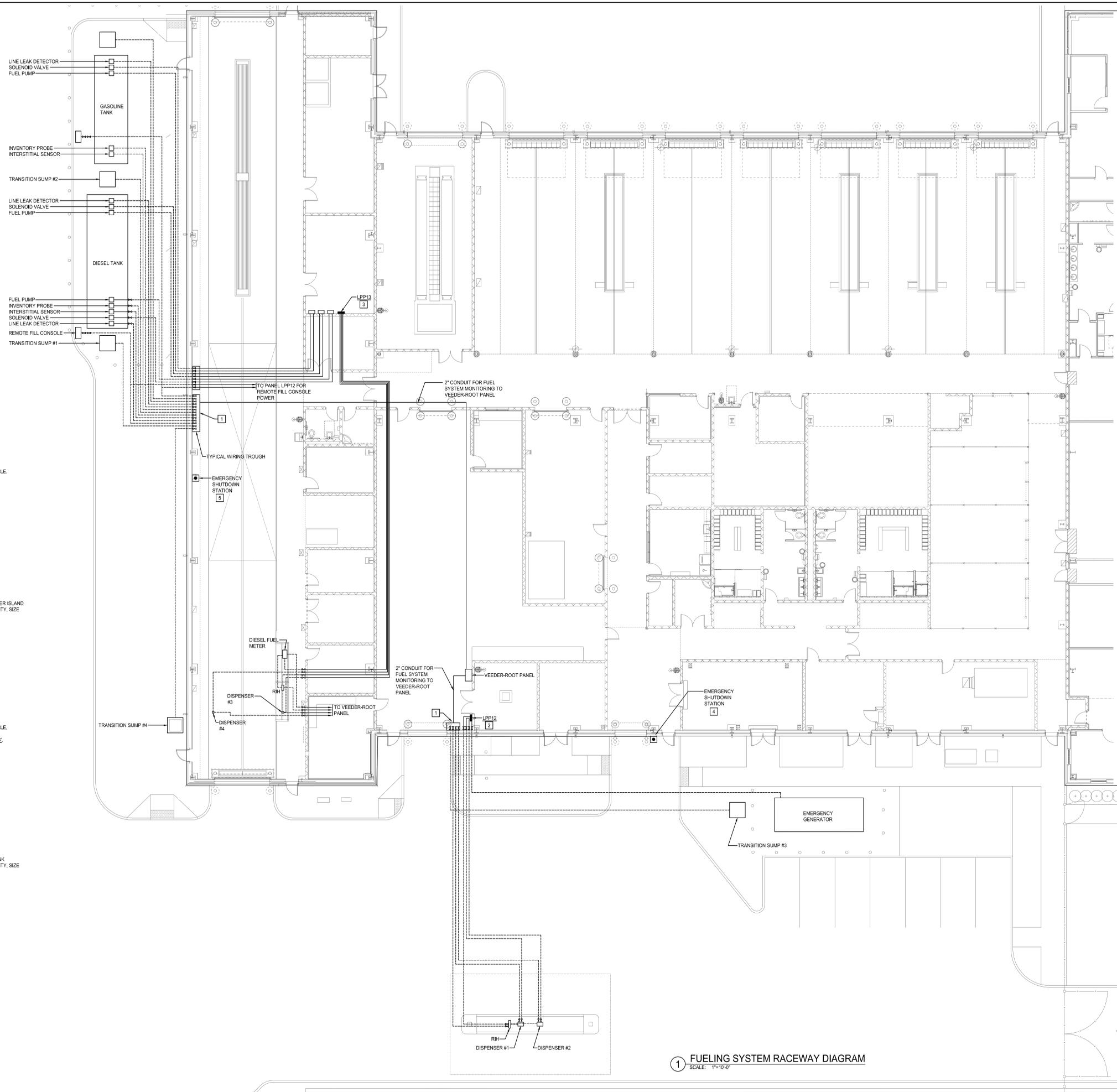
E804

GENERAL NOTES:

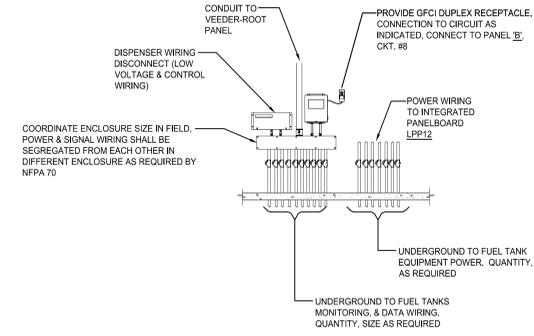
- A. REFER TO DRAWING E702 FOR EXTENT OF HAZARDOUS AREA AROUND FUEL CANOPY & FUEL TANKS THAT ARE SHOWN ON THIS DRAWING. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL MATERIALS & LABOR ARE APPROPRIATELY PROVIDED IN COMPLIANCE WITH NFPA 70 REQUIREMENTS REGARDING CLASSIFIED AREAS.
- B. UNLESS OTHERWISE NOTED, ALL ELECTRICAL WORK SHOWN ON THIS DRAWING IS SHOWN DIAGRAMMATICALLY. DO NOT SCALE. CONTRACTOR SHALL FIELD VERIFY ACTUAL ROUTING & LOCATIONS IN FIELD PRIOR TO INSTALLATION.
- C. ELECTRICAL CONNECTIONS SHALL COORDINATE & MAKE FINAL CONNECTIONS TO ALL FUELING EQUIPMENT AS REQUIRED. SIZE ALL FUSES, CIRCUIT BREAKERS, & OTHER PROTECTIVE DEVICES PER SELECTED EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
- D. REFER TO DRAWING E804 FOR RACEWAY & WIRING SIZE REQUIRED FOR ALL EQUIPMENT SHOWN ON THIS DRAWING.

CONSTRUCTION NOTES:

- 1. REFER TO DETAIL No. 2 & No. 3 ON THIS DRAWING FOR DESIGN INTENT FOR ELECTRICAL WORK IN THIS AREA. FIELD VERIFY ALL WIRING PRIOR TO INSTALLATION.
- 2. LPP12 - PROVIDE CUSTOM INTEGRATED POWER PANEL SOLUTION AS MANUFACTURED BY POWER INTEGRITY (PETROLEUM CONTROL SYSTEM FOR COMMERCIAL AND FLEET FUELING SITES. WEB: WWW.POWERINTEGRITYCORP.COM). PANELBOARD SHALL BE INTEGRATED WITH EMERGENCY SHUTDOWN STATIONS FOR EMERGENCY DISCONNECT OF GASOLINE DISPENSER & REMOTE PUMPING POWER WIRING ALONG WITH CONTROL WIRING.
- 3. LPP13 - PROVIDE CUSTOM INTEGRATED POWER PANEL SOLUTION AS MANUFACTURED BY POWER INTEGRITY (PETROLEUM CONTROL SYSTEM FOR COMMERCIAL AND FLEET FUELING SITES. WEB: WWW.POWERINTEGRITYCORP.COM). PANELBOARD SHALL BE INTEGRATED WITH EMERGENCY SHUTDOWN STATIONS FOR EMERGENCY DISCONNECT OF DIESEL DISPENSER & REMOTE PUMPING POWER WIRING ALONG WITH CONTROL WIRING.
- 4. GASOLINE PUMP EMERGENCY SHUT OFF SWITCH ON WALL, 48" ABOVE FINISHED GRADE. PROVIDE POWER INTEGRITY IA-ESOCAT7TD OR EQUAL. STATION SHALL DISCONNECT ALL POWERED CONDUCTORS TO THE GASOLINE DISPENSER AS WELL AS ALL OF THE GASOLINE REMOTE PUMPING EQUIPMENT.
- 5. DIESEL PUMP EMERGENCY SHUT OFF SWITCH ON WALL, 48" ABOVE FINISHED GRADE. PROVIDE POWER INTEGRITY IA-ESOCAT7TD OR EQUAL. STATION SHALL DISCONNECT ALL POWERED CONDUCTORS TO THE GASOLINE DISPENSER AS WELL AS ALL OF THE DIESEL REMOTE PUMPING EQUIPMENT.



2 DISPENSER RACEWAY DETAIL
SCALE: NONE



3 FUEL TANKS RACEWAY DETAIL
SCALE: NONE

1 FUELING SYSTEM RACEWAY DIAGRAM
SCALE: 1"=10'-0"



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FUEL DISPENSING CONDUIT ROUTING PLAN

DATE	09/24/2014	CHK	PTV
SCALE	AS NOTED	CHK	PTV
DRN	RB	CHK	PTV
PROJ. NO.	444205		
DWG. NO.			

E805