

CURRENT RATINGS AMPS	AMPS	PHASE CONDUCTORS THHW-THWN (75 DEGREE)	SETS	EQUIPMENT GROUNDING CONDUCTOR	CONDUIT SIZE
1	1,000	3#250MCM	4	1#3/0	3"
2	100	4#3	1	1#8	1 1/4"
3	50	3#8	1	1#10	3/4"
4	200	4#3/0	1	1#6	1 1/2"

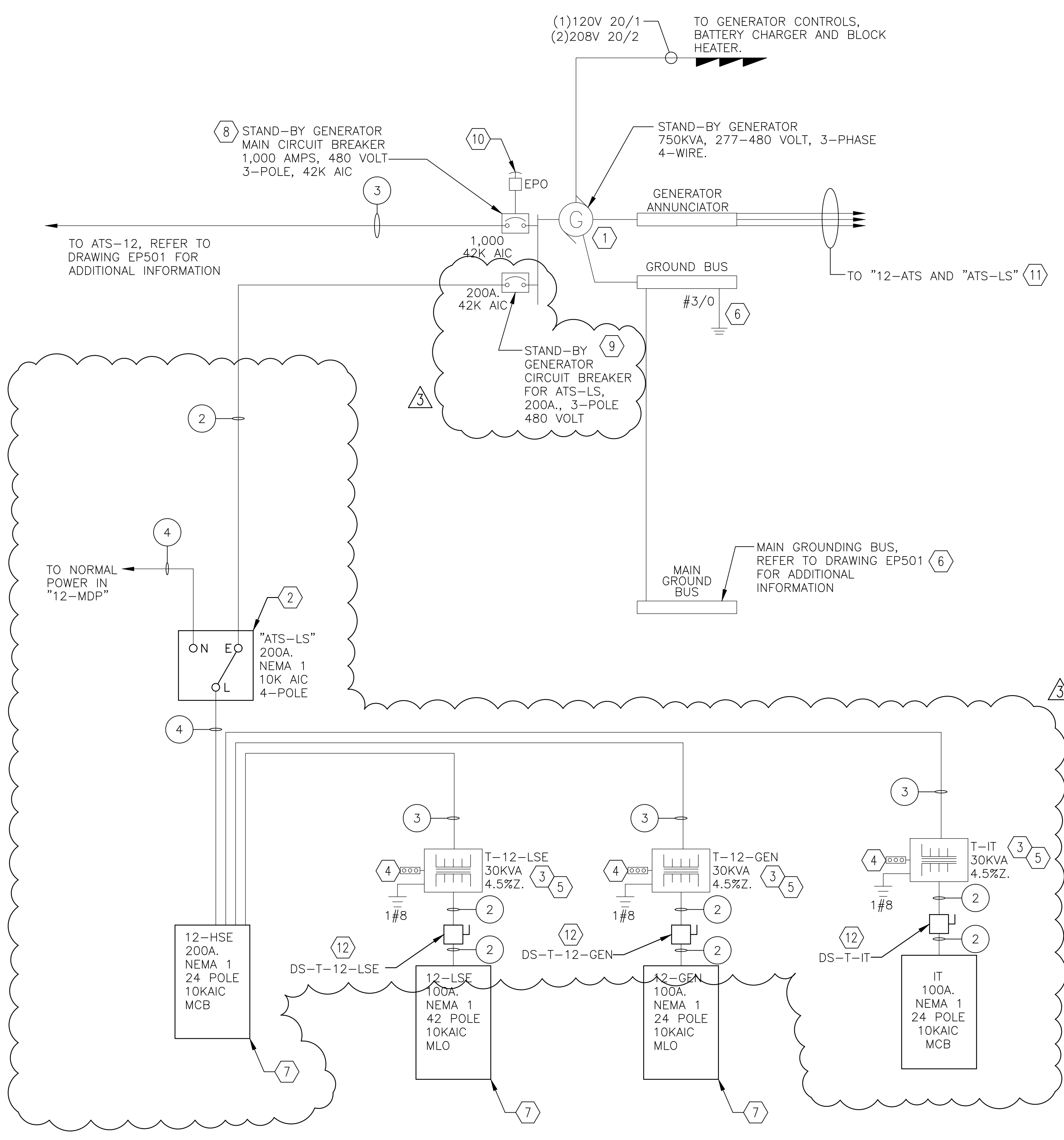
2 NORMAL POWER / STAND-BY POWER ONE-LINE DIAGRAM
SCALE NOT TO SCALE

ELECTRICAL ONE LINE DIAGRAM GENERAL NOTES

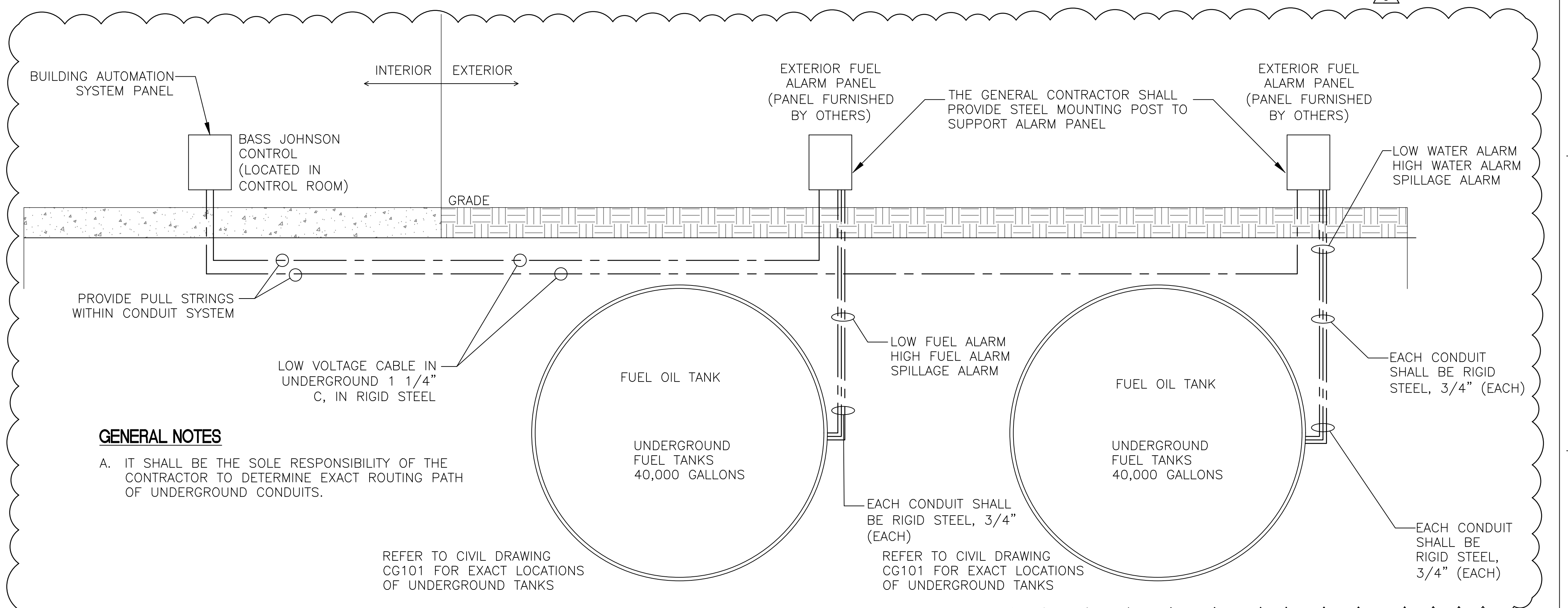
- REFER TO DWG. E-001 FOR ELECTRICAL LEGEND, ABBREVIATIONS, AND GENERAL NOTES RELATED TO THIS SHEET.
- REFER TO PLANS FOR PHYSICAL RESTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT ARE WITHIN THE RESTRAINTS OF EACH SPECIFIC EQUIPMENT LOCATION.
- ALL BUSSING SHALL BE COPPER, ALUMINUM SHALL NOT BE PERMITTED.
- ALL CONDUCTORS SHALL BE 75C RATED. 60C CONDUCTORS SHALL NOT BE PERMITTED.
- ALL ELECTRICAL PANELS AND DISTRIBUTION PANEL BOARDS SHALL BE FULLY RATED, SERIES RATED SYSTEMS SHALL NOT BE PERMITTED.
- THE STAND-BY GENERATOR AND THE AUTOMATIC TRANSFER SWITCHES SHALL BE COMPATIBLE AND SHALL COMMUNICATE BETWEEN THE TWO PIECES OF EQUIPMENT.
- THE CONTRACTOR SHALL NOTIFY VAMC IN WRITING MINIMUM OF (21) DAYS NOTICE ON SHUTDOWN OF BUILDING.
- THE CONTRACTOR SHALL MAKE EVERY EFFORT TO THE GREATEST EXTENT POSSIBLE TO MINIMIZE AND MITIGATE SHUTDOWN DOWNTIME AND DISRUPTION TO THE VAMC.
- REFER TO DETAILS 6/EP504, 7/EP504 AND 8/EP504 FOR ATS, TRANSFORMER AND SPD SCHEDULES.

ELECTRICAL ONE LINE DIAGRAM NOTES

- BASIS OF DEIGN CATAPILLAR DIESEL GENERATOR, REFER TO SPECIFICATION 263213 FOR ADDITIONAL INFORMATION. STAND-BY GENERATOR SHALL BE 750KVA, 480-277 VOLT, 3-PHASE, 4-WIRE.
- "ATS-LS" SHALL BE 200 AMP RATED, 480-277 VOLT, 3-PHASE, 4-WIRE, 10KAIC.
- PROVIDE 30KVA, DRY-TYPE, TRANSFORMER, 480 VOLT PRIMARY, 120-208 VOLT SECONDARY, 3-PHASE, 4-WIRE, TRAPEZE MOUNTED.
- CONNECT TO TRANSFORMER BUS-BAR, REFER TO DETAIL 5/E-501 FOR ADDITIONAL INFORMATION.
- TRANSFORMER SHALL BE PAD MOUNTED ON FLOOR.
- CONNECT TO BUILDING GROUNDING SYSTEM, REFER TO DETAIL 2/E-501 FOR ADDITIONAL INFORMATION.
- PROVIDE NEW ELECTRICAL PANEL AS INDICATED, REFER TO EP600 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
- PROVIDE 1,000 AMP, 480 VOLT, 3-PHASE, 42K AIC, CIRCUIT BREAKER AS INDICATED.
- PROVIDE 200 AMP, 480 VOLT, 3-PHASE, 42K AIC, CIRCUIT BREAKER.
- PROVIDE EPO (EMERGENCY POWER OFF) BUTTON, REFER TO DETAIL 7/E-501 FOR ADDITIONAL INFORMATION.
- THE CONTRACTOR SHALL ROUTE 3/4-INCH EMPTY CONDUIT FROM GENERATOR ANNUNCIATOR TO "ATS-12" AND "ATS-LS", PROVIDE PULL STRINGS WITHIN THE EMPTY CONDUIT SYSTEM, THE GENERATOR MANUFACTURER SHALL PULL LOW VOLTAGE CABLING AND MAKE FINAL CONNECTIONS.
- PROVIDE 100 AMP DISCONNECT SWITCH FUSED WITH 4-100 AMP FUSES, NEMA 1 ENCLOSURE.



1 NORMAL POWER / STAND-BY POWER ONE-LINE DIAGRAM
SCALE NOT TO SCALE



3 FUEL ALARM SENSOR DETAIL
SCALE NOT TO SCALE

GENERAL NOTES

- IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE EXACT ROUTING PATH OF UNDERGROUND CONDUITS.

ADDENDUM	DATE
ADDENDUM 1	08-09-2024
ADDENDUM 2	09-12-2024
ADDENDUM 3	01-24-2025

Revisions:	Date:

CONSULTANT

ARCHITECT/ENGINEER OF RECORD

paradigm
Architecture | Engineering | Design-Build
9000 Weissex Place, Louisville, KY 40222
www.paradigmusa.com

STAMP

TYLER M. MONTGOMERY
REGISTERED PROFESSIONAL ENGINEER
EXPIRES 12/31/2025
1/24/2025

Office of Construction and Facilities Management

U.S. Department of Veterans Affairs

Drawing Title	Phase
NORMAL POWER ONE-LINE DIAGRAM	100% CONSTRUCTION DOCUMENTS
Approved: Project Director	

Project Title	Project Number
SIoux FALLS BOILER PLANT	438-22-900
Location	Building Number
VAMC-SIoux Falls: 2501 W 22nd St, Sioux Falls, SD 57105	12
Issue Date	Checked
06/25/2024	WLM
Drawn	KMB

Project Title	Project Number
SIoux FALLS BOILER PLANT	438-22-900
Location	Building Number
VAMC-SIoux Falls: 2501 W 22nd St, Sioux Falls, SD 57105	12
Issue Date	Checked
06/25/2024	WLM
Drawn	KMB