



REQUEST FOR QUOTATION

Circle Replacement Generator and Switchgear Installation

RETURN BY EMAIL
AEAProcurement@akenergyauthority.org

RFQ NO: **24073**
Quotations due on/before
2:00 PM Local Time
10/26/2023

Page 1 of 4 Date: 10/13/23

CONTRACTOR NOTICE (This is NOT a Purchase Order)

This is an **informal quotation** that will not be read at public opening. The information may be publicly reviewed after award. The terms and conditions should be reviewed and understood before preparing a quotation.

Fill out and sign the bottom portion of this page along with the Debarment Certificate, page 4 of Appendix B, and return both pages. Please return the quotation by the above time and date to:
AEAProcurement@akenergyauthority.org. Please reference the RFQ number on the SUBJECT of the email.

Circle Power Plant
Circle, Alaska

Selwin C. Ray (907) 771-3035
sray@akenergyauthority.org

This Request for Quotation (RFQ) is for a licensed contractor to perform Work in the diesel electric power plant in Circle, Alaska. The Work shall consist primarily of installing replacement diesel-generators and switchgear components along with associated tasks as described in Appendix A, Detailed Project Description, and Appendix C, Drawings.

The Engineer's Estimate for the Work is between \$50,000 and \$100,000.

All questions relating to bidding procedures should be directed to:

Selwin C. Ray, Contract Officer, (907) 771-3035 sray@akenergyauthority.org

All questions relating to technical aspects of the project should be directed to:

Justin Tuomi, Project Manager, (907) 771-3093 jtuumi@akenergyauthority.org

Provide a lump sum fixed price quote in U.S. dollars where indicated below. The cost shall include all labor, materials, supervision, equipment, tools, transportation, quality control, and supplies required to complete the work as described in this RFQ.

The proposed schedule for the Work is described in Appendix A, Detailed Project Description. Provide a firm completion date where indicated below.

THIS SECTION MUST BE COMPLETED BY CONTRACTOR

Completion is desired no later than December 1, 2023.

The Work shall be substantially complete no later than _____

Lump sum price for completion of the Work _____

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I. Background:

Circle Telephone and Electric (CTE) operates a power plant that provides prime power to the community of Circle using 3 each diesel powered engine-generators. In 2020 the Alaska Energy Authority (AEA) assisted CTE with a major renovation of the plant that included two new engine-generators, new switchgear, and new mechanical and electrical systems.

In the spring of 2023 Circle experienced a severe flood that caused extensive damage throughout the community. The engine-generators and the electric motors on the radiators were submerged and are considered damaged beyond use. The lower portion of the switchgear was submerged and the circuit breakers, contactors, and current transformers located in this area are considered not suitable for use. The control devices in the upper portion of the switchgear and most of the other systems in the plant appear to be suitable for use.

In response to the flood, the AEA and the Alaska State Emergency Operation Center (SEOC) mobilized two each emergency standby generators and a manual transfer switch plus associated power cables. This equipment was set up outside of the Circle power plant, connected to the step up transformers, and is presently providing prime power to the community.

The standby generators are not adequately protected for service during the cold winter. In addition, the manual transfer switch requires a community power outage at every oil change. The purpose of this project is to install Owner Furnished engine-generators and switchgear components to return the power plant to the functional status prior to the flood.

II. Project Schedule:

October 26, 2023	Bids due no later than NOON local time.
November 1, 2023	Notice of Contract Award.
November 1, 2023	Owner Furnished Equipment available for pickup.
December 1, 2023	Substantial Completion. Note that this is the desired completion date. Provide a firm completion date in the Bid Response based on the above listed schedule.

III. Scope of Work:

Drawings are included in Appendix C and are hereby incorporated into this RFQ. The following drawings are included:

2023 Replacement Drawings - New design drawings MR1, MR2, MR3, ER1, ER2, ER3, and ER4 which depict the Work for this project and include specifications.

Switchgear Drawings - Shop drawings for the switchgear that was installed in 2020 with redmarks delineating components that are to be replaced as part of this Work.

2020 DERA Record Drawings – Record drawings for the 2020 power plant renovation which are provided for reference.

The intent of the Contract is to provide for the construction and completion of every detail of work described in the RFQ. The Contractor shall furnish all labor, materials, supervision, equipment, tools, transportation, quality control, and supplies required to

complete the work in accordance with the RFQ. The Work shall include but not be limited to the following tasks:

- 1) Prior to beginning construction, provide a schedule to AEA. The schedule shall include the estimated date for substantial completion so that AEA can schedule staff travel for inspection, testing, and commissioning.
- 2) Provide daily progress reports to AEA via email. Reports shall include a brief summary of work completed along with representative photos.
- 3) Receive Owner Furnished Equipment. See Part IV, Owner Furnished Equipment.
- 4) Furnish all other required miscellaneous materials and hardware.
- 5) Mobilize all required materials, equipment, tools, supplies, etc. and all required personnel to the project site in Circle, Alaska.
- 6) Maintain power in the community during construction with limited outages scheduled in advance with the local utility. Note that the existing switchgear and generators are presently de-energized and isolated from the standby generators so outages should only be required for re-connection of the renovated power plant to the community.
- 7) Remove two each existing engine-generators. Drain coolant and fuel hoses. Carefully disconnect piping and electrical and protect for connection to new.
- 8) Install three each new Owner Furnished engine-generators and reconnect piping and electrical. Note that replacement engine-generators are identical to the original ones.
- 9) Install two each Owner Furnished 2 HP electric motors on existing radiators.
- 10) Install two each Owner Furnished coolant temperature sensors and one each digital piping thermometer on existing coolant return main.
- 11) Charge cooling system with Owner Furnished glycol and bleed air out.
- 12) Carefully remove existing circuit breakers, contactors, and current transformers located in the lower portion of the switchgear and reinstall new components. Note that replacement components are essentially identical to the original ones. See Switchgear redlines for connections. Following is a list of components:
 - a) 3 each 400A Contactors
 - b) 4 each 400A Molded Case Circuit Breakers
 - c) 1 each 150A Molded Case Circuit Breaker
 - d) 6 each 10A Din Rail Mount Circuit Breakers
 - e) 9 each 0.5A Din Rail Mount Circuit Breakers
 - f) 9 each 400:5 Ratio Current Transformers
 - g) 3 each 150:5 Ratio Current TransformersUsing a label maker, label each replacement component with the same designation as the label on the removed item.
- 13) Prior to connecting to the community, AEA will test the new generators and refurbished switchgear with a load bank to verify proper function. Provide assistance to AEA staff during testing and correct any deficiencies found.
- 14) Schedule a brief outage. Disconnect one standby generator from the transfer switch. Connect the main feeder from the switchgear to the empty side of the

transfer switch. Note that this is being done to allow CTE the ability to use the standby generator in an emergency this winter.

- 15) Upon completion of Work, remove all Contractor tools and equipment from the project site, thoroughly clean all work areas, remove all rubbish and debris, and dispose of all waste in accordance with State requirements.

IV. Owner Furnished Equipment:

Under Part IV the term Owner refers to the Alaska Energy Authority (AEA).

- 1) The following equipment and materials will be furnished by the Owner at no cost to the Contractor:
 - a) Three each skid mounted engine-generators. Overall dimensions of each unit approximately 7' long by 3' wide by 4' high. Approximate weight of each unit 3,200#.
 - b) One lot switchgear components as listed under Part V, Scope of Work. One crate approximately 3' by 3' by 2' weighing 300#.
 - c) Two 2 HP 240V electric motors weighing 80# each.
 - d) One 55 gallon drum 50% ethylene glycol weighing 550#.
 - e) One box flange gaskets, piping thermometer, and temperature sensors.
- 2) All materials will be staged at the AEA Warehouse, 2601 Commercial Drive, Anchorage, AK. AEA will furnish a forklift for loading onto the Contractor's truck.
- 3) The Contractor shall receive and accept the materials at the AEA Warehouse; inspect all materials to confirm that the materials delivered are in good condition and the quantities are correct; and execute a receipt for all materials accepted from the Authority.
- 4) The Contractor shall receive, transport, and protect all material in accordance with accepted industry standards. All handling charges required for receiving, loading, unloading, hauling, transporting or storing the material shall be borne by the Contractor.
- 5) Upon receipt of the materials as specified above, the Contractor shall become solely responsible for their care, transportation, storage, and protection. In the event materials are damaged, lost, stolen, or destroyed by any cause whatsoever after the Contractor has signed a receipt for them, their repair or replacement shall be entirely at the Contractor's expense. All material replaced by the Contractor shall be equal to the material provided by the Authority and shall meet the material purchase specifications.
- 6) At the time of substantial completion the Owner will furnish a 100kW load bank complete with cables for testing the generation equipment.

V. Owner Furnished Tools and Services:

Under Part V the term Owner refers to Circle Telephone and Electric (CTE).

- 1) The Owner will provide heat, light, and electrical power inside the power plant at no cost to the Contractor.

- 2) The Owner will provide use of a forklift for unloading and a pallet jack for moving the generators at no cost to the Contractor.

VI. Special Terms and Conditions:

- 1) Specific insurance requirements are included under Part VII, Insurance. The Contractor shall provide Insurance in accordance with these requirements. Note that failure to supply satisfactory proof of insurance within the time required may cause Owner to declare the bidder non-responsible and to reject the bid.
- 2) The Denali Commission Federal funds being used are exempt from Davis Bacon wage requirements; therefore, Federal prevailing wage rates do not apply.
- 3) Circle Telephone and Electric is not a political subdivision of the State of Alaska; therefore, this work is not subject to AS 36.05. Alaska Mini-Davis-Bacon wage rates do not apply and certified payroll is not required.

VII. Insurance Requirements:

The Contractor shall purchase at their own expense and maintain in force at all times during the performance of services under this agreement the following policies of insurance. Where specific limits are shown, it is understood that they shall be the minimum acceptable limits. If the Contractor's policy contains higher limits, the Owner shall be entitled to coverage to the extent of such higher limits. Certificates of Insurance must be furnished to the Owner prior to beginning work and must provide for a notice of cancellation, non-renewal, or material change of conditions in accordance with policy provisions. Failure to furnish satisfactory evidence of insurance or lapse of the policy is a material breach of this contract and shall be grounds for termination of the Contractor's services. All insurance policies shall comply with, and be issued by insurers licensed to transact the business of insurance under AS 21. Proof of insurance is required for the following:

Workers' Compensation Insurance: The Contractor shall provide and maintain, for all employees engaged in work under this contract, coverage as required by AS 23.30.045, and; where applicable, any other statutory obligations including but not limited to Federal U.S.L. & H. and Jones Act requirements. The policy must waive subrogation against Owner.

Commercial General Liability Insurance: covering all business premises and operations used by the Contractor in the performance of services under this agreement with minimum coverage limits of \$1,000,000 combined single limit per occurrence. The Owner shall be listed as additional insured and a Waiver of Subrogation against the Owner will be provided.

Commercial Automobile Liability Insurance: covering all vehicles used by the Contractor in the performance of services under this agreement with minimum coverage limits of \$300,000 combined single limit per occurrence.

Failure to supply satisfactory proof of insurance within the time required may cause Owner to declare the bidder non-responsible and to reject the bid.

The Certificate of Insurance shall name Circle Telephone and Electric, Alaska Energy Authority, and Denali Commission as certificate holders and reference the project title "Circle Replacement Generator and Switchgear Installation".

APPENDIX B – FEDERAL ASSURANCES

Because this contract is funded with federal funds, the following contract provisions shall apply, where applicable, to all work performed on the contract by the contractor's own organization and by subcontractors. As provided in this Section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions and further require their inclusion in any lower tier subcontracts or purchase orders that may in turn be made. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with all applicable Required Contract Provisions.

B.1 BREACHES AND DISPUTE RESOLUTION.

Contracts in excess of \$250,000. Any dispute arising under this Contract which is not disposed of by mutual agreement shall be resolved in accordance with 2 AAC 108.915.

B.2 TERMINATION.

Contracts in excess of \$10,000. This Contract may be terminated by either party upon 10 days written notice if the other party fails substantially to perform in accordance with its terms through no fault of the party initiating the termination ("Default Termination"). If the Authority terminates this agreement, the Authority will pay the Contractor a sum equal to the percentage of Work completed that can be substantiated either by the Contractor to the satisfaction of the Authority, or by the Authority. If the Authority becomes aware of any non-conformance with the Work or this agreement by the Contractor, the Authority will promptly notify the Contractor in writing of the non-conformance. Should the Contractor's Work remain in non-conformance after having received written notification, the percentage of total compensation attributable to the non-conforming Work may be withheld. The Authority may at any time suspend or terminate ("Convenience Termination") this Agreement for its needs or convenience with or without cause upon written notice. In the event of a Convenience Termination, the Contractor will be compensated for all authorized Work and authorized expenditures performed to the date of receipt of written notice of termination plus reasonable expenses. No fee or other compensation will be due for any incomplete portion of the Work.

B.3 EQUAL EMPLOYMENT OPPORTUNITY.

Except as otherwise provided under [41 CFR Part 60](#), **all construction contracts** must include, and all contractors and subcontractors must comply with, the equal opportunity clause provided under [41 CFR 60-1.4\(b\)](#), in accordance with Executive Order 11246, "Equal Employment Opportunity" ([30 FR 12319](#), [12935](#), [3 CFR Part, 1964-1965](#) Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at [41 CFR part 60](#), "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

B.4 DAVIS-BACON ACT, AS AMENDED ([40 U.S.C. 3141-3148](#)).

Construction contracts in excess of \$2,000 are required to comply with the Davis-Bacon Act ([40 U.S.C. 3141-3144](#), and [3146-3148](#)) as supplemented by Department of Labor regulations ([29 CFR Part 5](#), "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). Contractors are required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must pay wages not less than once a week. **A copy of the current prevailing wage determination issued by the Department of Labor is included in this solicitation.** Contract and subcontract awards must be conditioned upon the acceptance of the wage determination. All suspected or reported violations must be reported to the Federal awarding agency.

B.5 COPELAND “ANTI-KICKBACK” ACT ([40 U.S.C. 3145](#))

Construction contracts in excess of \$2,000 are required to comply with the **Copeland “Anti-Kickback” Act ([40 U.S.C. 3145](#))**, as supplemented by Department of Labor regulations ([29 CFR Part 3](#), “Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States”). Each contractor or subrecipient is prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. All suspected or reported violations must be reported to the Federal awarding agency.

B.6 CONTRACT WORK HOURS/SAFETY STANDARDS ACT ([40 U.S.C. 3701-3708](#)).

Construction contracts in excess of \$100,000 that involve the employment of mechanics or laborers are required to comply with [40 U.S.C. 3702](#) and [3704](#), as supplemented by Department of Labor regulations ([29 CFR Part 5](#)). Under [40 U.S.C. 3702](#) of the Act, each contractor is required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of [40 U.S.C. 3704](#) are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

B.7 RIGHTS TO INVENTIONS MADE UNDER A CONTRACT OR AGREEMENT.

If the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with the requirements of [37 CFR Part 401](#), “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency.

B.8 CLEAN AIR ACT ([42 U.S.C. 7401-7671q](#).) AND THE FEDERAL WATER POLLUTION CONTROL ACT ([33 U.S.C. 1251-1387](#)), AS AMENDED

Contracts in excess of \$150,000 are required to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act ([42 U.S.C. 7401-7671q](#)) and the Federal Water Pollution Control Act as amended ([33 U.S.C. 1251-1387](#)). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

B.9 DEBARMENT AND SUSPENSION (EXECUTIVE ORDERS 12549 & 12689)

A contract award **greater than or equal to \$25,000** (see [2 CFR 180.220](#)) must not be made to parties listed on the government wide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at [2 CFR 180](#) that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), “Debarment and Suspension.” **Contractors that apply or bid for an award exceeding \$25,000 must sign and submit the attached “Debarment” certification with their bid.**

B.10 BYRD ANTI-LOBBYING AMENDMENT ([31 U.S.C. 1352](#))

Each contractor and subcontractor must certify that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or

employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by [31 U.S.C. 1352](#). Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Disclosures shall be forwarded from tier to tier up to the Authority. **Contractors that apply or bid for an award exceeding \$100,000 must sign and submit the attached “Lobbying” certification with their bid.**

B.11 PROCUREMENT OF RECOVERED MATERIALS.

A state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at [40 CFR part 247](#) that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, **where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000**; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

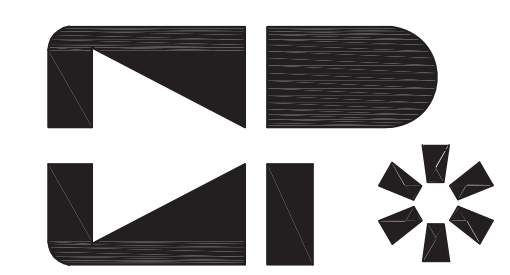
B.12 PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT.

Contractors and subcontractors are prohibited from entering into a contract (or extending or renewing a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in [Public Law 115-232](#), section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities). See [§ 200.216](#).

B.13 DOMESTIC PREFERENCES FOR PROCUREMENTS.

As appropriate and to the extent consistent with law, and to the greatest extent practicable, Contractor's are required to provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all contracts and purchase orders for work or products under this award. See [§ 200.322](#).

The funding for this project is exempt from the Buy American Act and therefore this purchase is not subject to the Buy American Act.

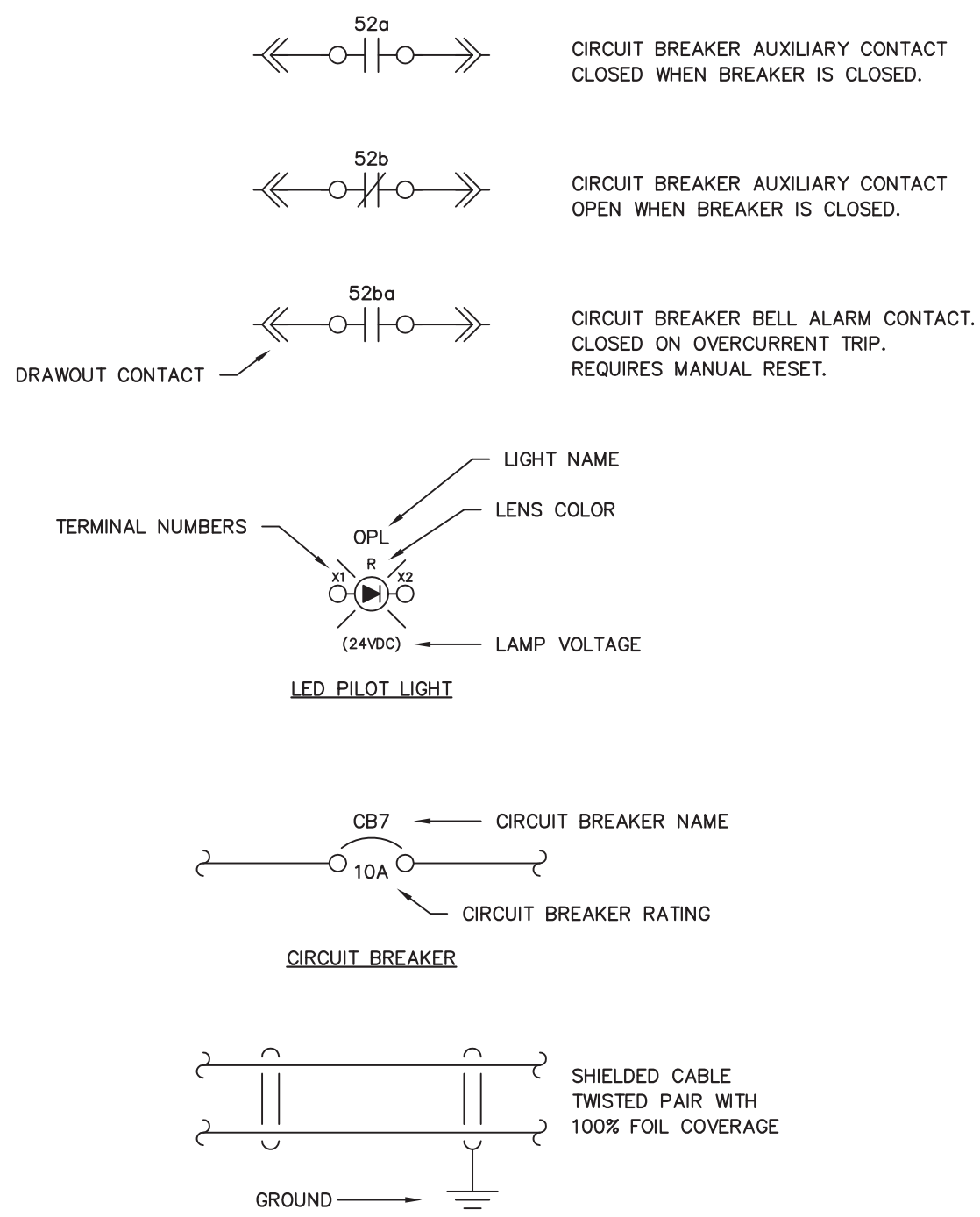
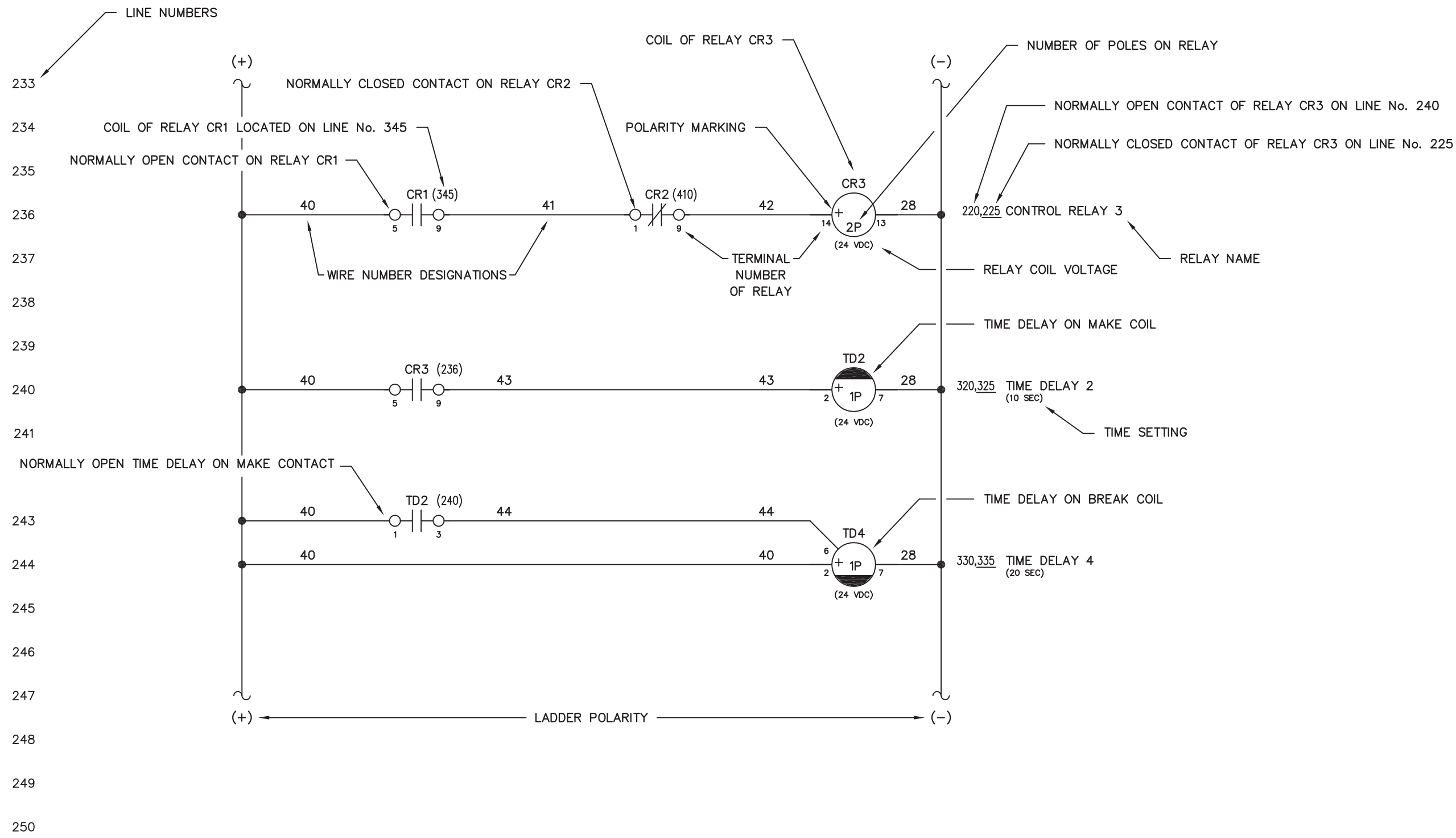


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Controlled Power, Inc.
BOTHELL, WASHINGTON USA
(425)–485–1778 www.controlledpowerinc.com

**CIRCLE POWER PLANT UPGRADE
CONTROLLED POWER, INC. JOB No. 9033
STURGEON ELECTRIC PURCHASE ORDER No. 54540**

<u>DRAWING No.</u>	<u>DRAWING TITLE</u>
9033–2101–D	COVER SHEET
9033–3101–D	SCHEMATIC LEGEND & NOTES
9033–4101–D	GENERATOR SWITCHGEAR ELEVATION VIEW, OUTLINE DIAGRAM
9033–5101–D	GENERATOR SWITCHGEAR SINGLE LINE, SCHEMATIC DIAGRAM
9033–5201–D	GENERATOR 1 AC THREE LINE, SCHEMATIC DIAGRAM
9033–5202–D	GENERATOR 2 AC THREE LINE, SCHEMATIC DIAGRAM
9033–5203–D	GENERATOR 3 AC THREE LINE, SCHEMATIC DIAGRAM
9033–5204–D	MASTER AC THREE LINE, SCHEMATIC DIAGRAM
9033–5301–D	GENERATOR 1 DC CONTROL, SCHEMATIC DIAGRAM
9033–5302–D	GENERATOR 2 DC CONTROL, SCHEMATIC DIAGRAM
9033–5303–D	GENERATOR 3 DC CONTROL, SCHEMATIC DIAGRAM
9033–5304–D	MASTER DC CONTROL, SCHEMATIC DIAGRAM
9033–5305–D	LIGHTING CONTROL, SCHEMATIC DIAGRAM
9033–5306–D	R1 & R2 CONTROL, SCHEMATIC DIAGRAM
9033–5601–D	COMMUNICATION NETWORK, SCHEMATIC DIAGRAM
9033–5602–D	COMMUNICATION NETWORK, SCHEMATIC DIAGRAM
9033–6101–D	CONTROL SWITCH TARGET DIAGRAM
9033–6201–D	NAMEPLATE ENGRAVING SCHEDULE, FABRICATION DIAGRAM
9033–6202–D	ANNUNCIATOR WINDOWS, FABRICATION DIAGRAM
9033–7101–D	INTERCONNECTION DIAGRAM

**NOTE: THESE SHOP DRAWINGS SHOW
THE ORIGINAL INSTALLATION.
COMPONENTS THAT ARE TO BE
CHANGED ARE NOTED WITH RED
REVISION CLOUDS ON THE PAGES
THAT FOLLOW.**



NOTES:

- SCHEMATIC IS SHOWN AS FOLLOWS:
 - ALL AC AND DC POWER REMOVED.
 - ALL RELAY CONTACTS DE-ENERGIZED.
 - ALL CIRCUIT BREAKERS IN THE OPEN/RESET POSITION.
 - ALL MODE SWITCHES IN THE "OFF" POSITION.
 - ALL EMERGENCY STOP SWITCHES IN THE "NORMAL" POSITION.
 - ALL PRESSURE SWITCHES SHOWN WITHOUT PRESSURE PRESENT.
 - ALL LEVEL SWITCHES SHOWN WITHOUT FLUID PRESENT.
 - ALL TEMPERATURE SWITCHES SHOWN AT AMBIENT.
- ⊙ INDICATES INTERCONNECT TERMINALS IN GENERATOR CONTROL SECTION.
- ⊙ INDICATES FIELD TERMINALS IN GENERATOR CONTROL SECTION.
- ⊙ INDICATES TERMINALS AT ENGINE/GENERATOR.
- ⊙ INDICATES INTERCONNECT TERMINALS IN MASTER SECTION.
- ⊙ INDICATES FIELD TERMINALS IN MASTER SECTION.
- ⊙ INDICATES INTERCONNECT TERMINALS IN FEEDER/VFD SECTION.
- ⊙ INDICATES FIELD TERMINALS IN FEEDER/VFD SECTION.
- INDICATES FIELD WIRING BY OTHERS.
- ALL CONTROL WIRING TO BE No. 14 AWG, 600 VOLT, TYPE SIS EXCEPT AS NOTED.
- SHIELDED WIRING TO BE No. 18 AWG, 300 VOLT, TWISTED LINE WITH 100% FOIL COVERAGE.
- ALL DIODES ARE 1N4007 EXCEPT AS NOTED.
- ⊙ INDICATES LOWER SECTION TIE POINT TERMINAL BLOCK.

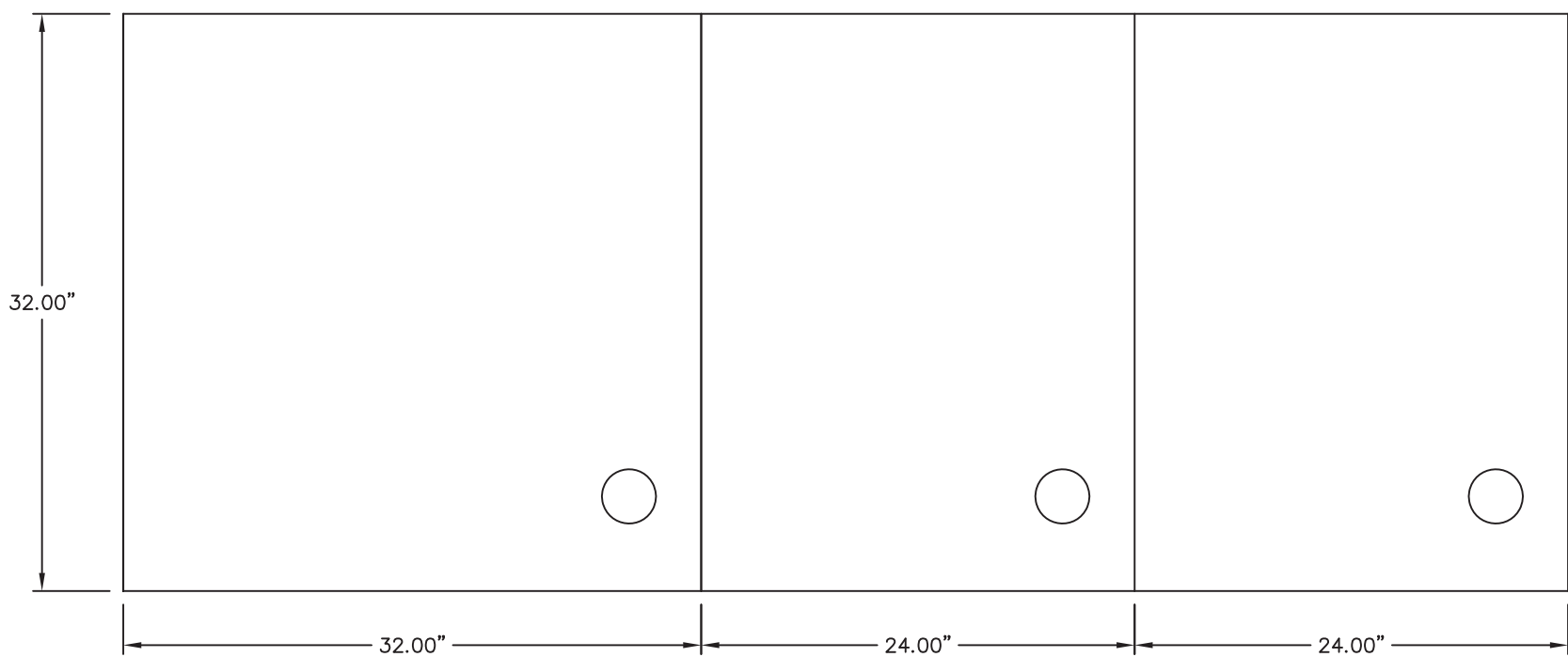
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Sturgeon
ELECTRIC

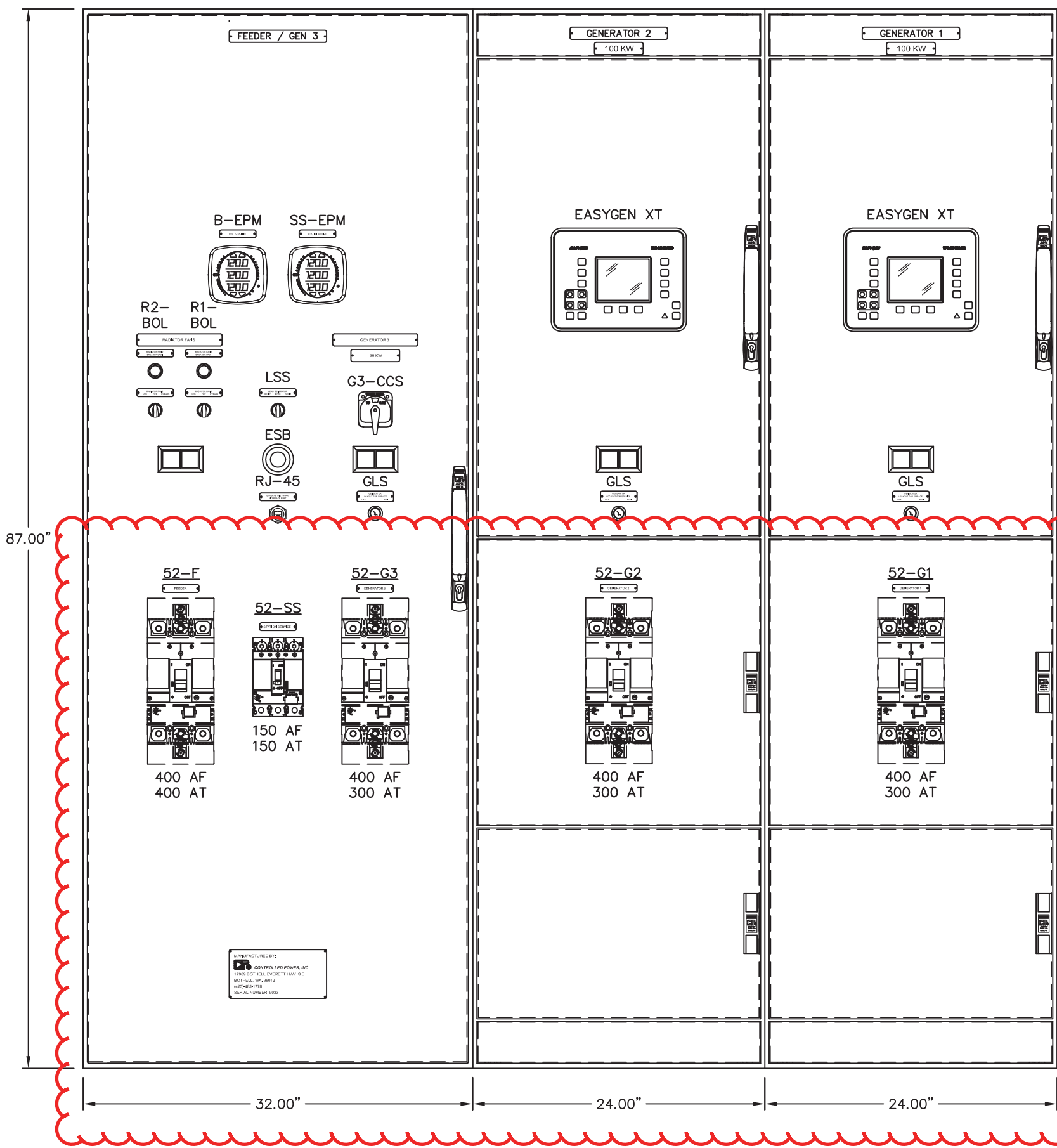
1301 E 64th AVENUE
ANCHORAGE, AK 99518
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<https://sturgeonelectric.com>



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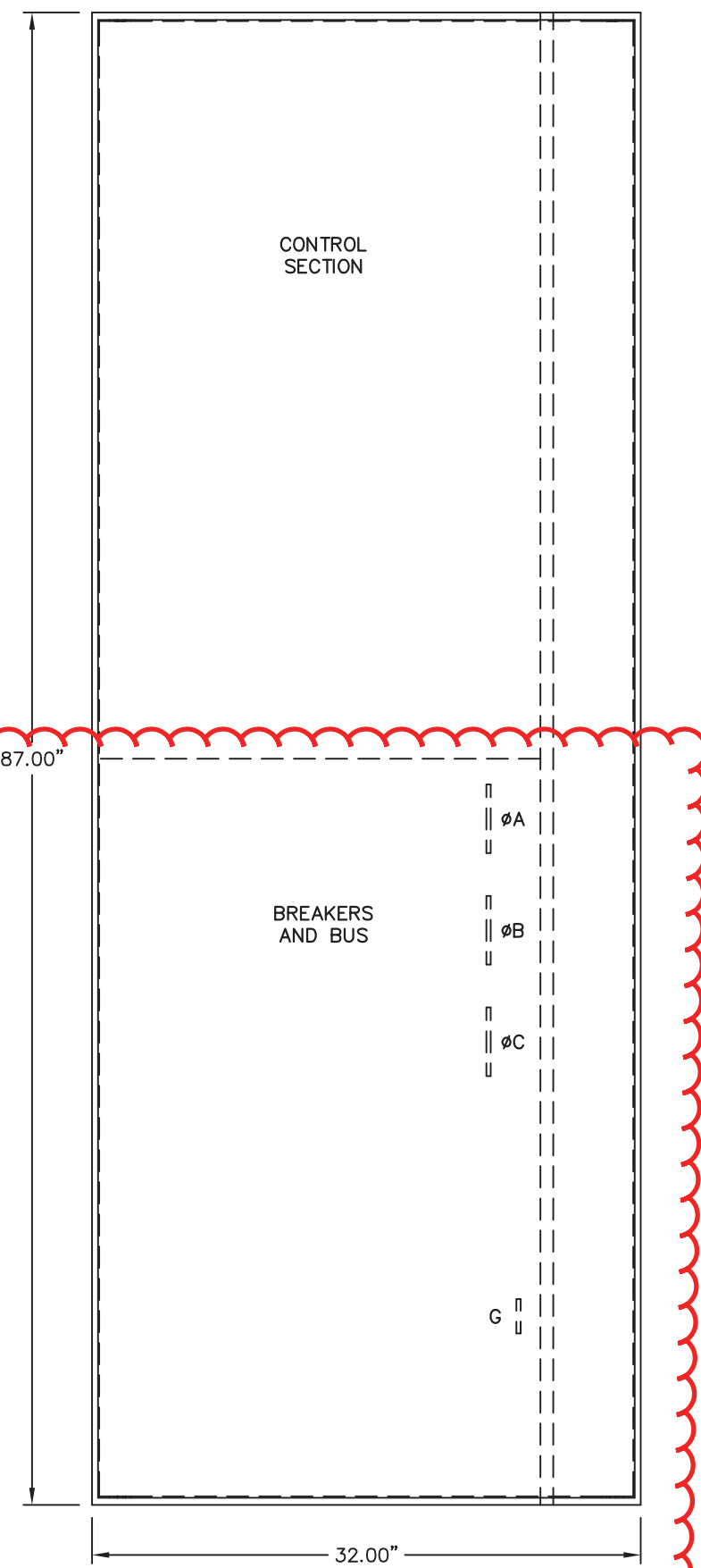


TOP VIEW



GENERATOR SWITCHGEAR ELEVATION VIEW

REPLACE COMPONENTS
IN LOWER HALF OF
SWITCHGEAR, SEE ONE
LINE AND THREE LINE
DIAGRAMS.



SIDE VIEW

NOTE:
1. FOR GENERAL WIRING & CONSTRUCTION NOTES, SEE DRAWING No. 9033-3101-D.

E	10-30-20	AS COMMISSIONED	GPN
REV.	DATE	DESCRIPTION	BY
SE PURCHASE ORDER No. 54540		CONTROLLED POWER JOB No. 9033	
TITLE: GENERATOR SWITCHGEAR ELEVATION VIEW, OUTLINE DIAGRAM			
SCALE: NONE		DATE: 05-07-20	DWN. BY: GJG
DWG. No: 9033-4101-D		SHEET: 1 OF 1	CKD. BY: JMD
JOB: CIRCLE POWER PLANT UPGRADE			

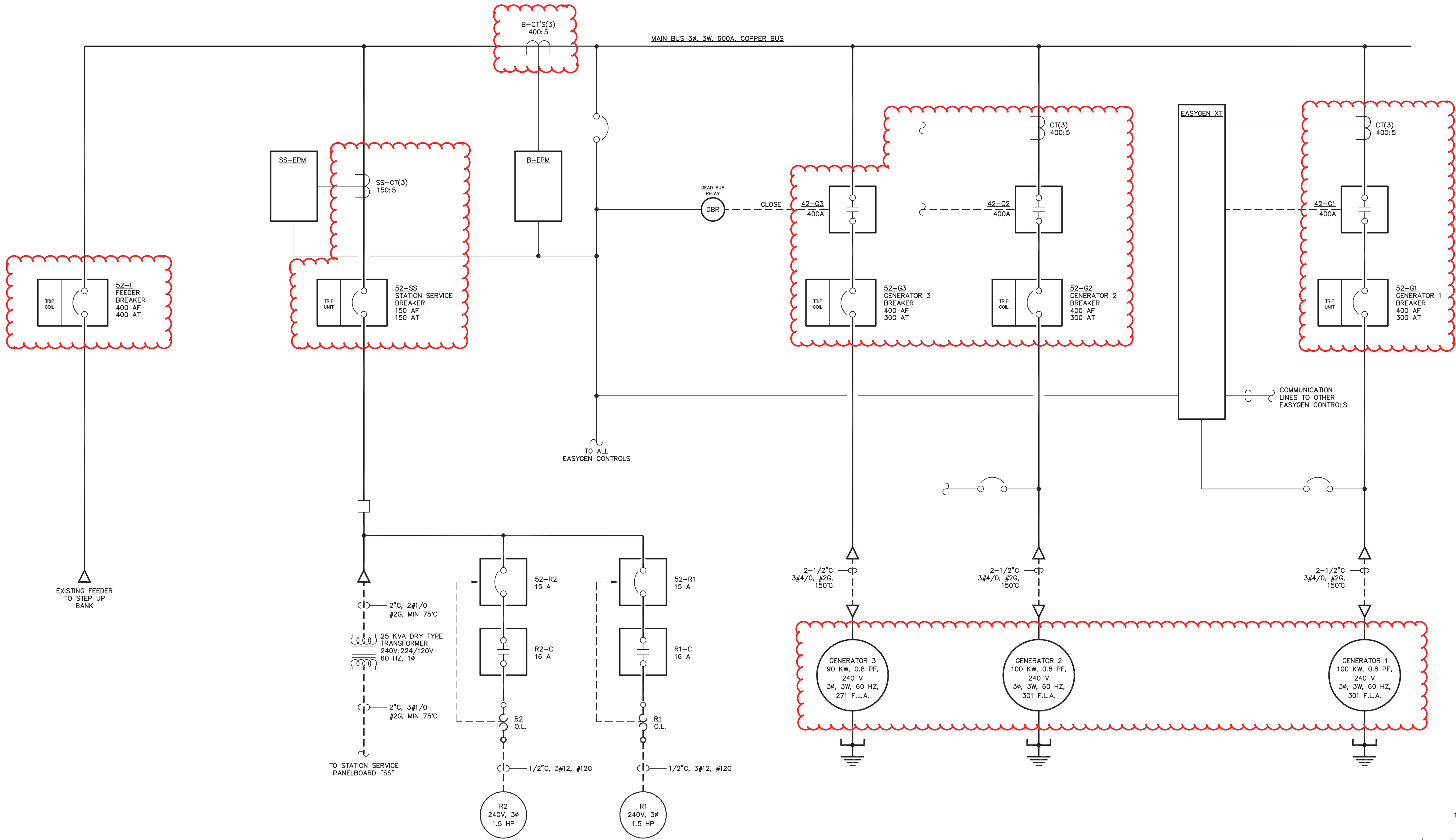


1301 E 64th AVENUE
ANCHORAGE, AK 99518
PHONE: 907.344.0321
<https://sturgeonelectric.com>

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NOTES
1. GENERATOR 2 SIMILAR
TO GENERATOR 1.

NOTE:
1. FOR GENERAL WIRING & CONSTRUCTION NOTES, SEE DRAWING No. 9033-3101-D.

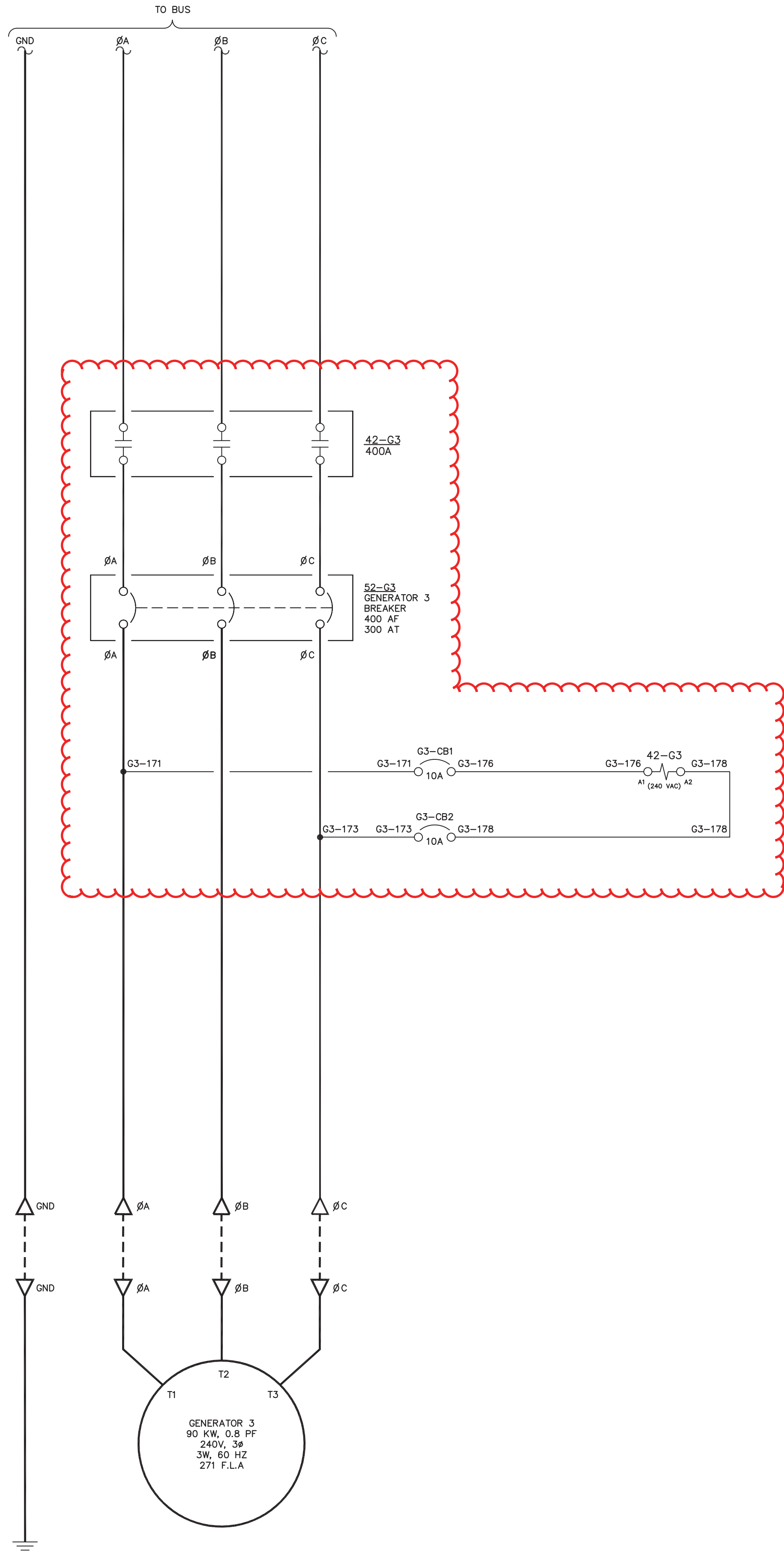
E	10-30-20	AS COMMISSIONED	GPN
REV.	DATE	DESCRIPTION	BY
SE PURCHASE ORDER No. 54540		CONTROLLED POWER JOB No. 9033	
TITLE: GENERATOR SWITCHGEAR SINGLE LINE, SCHEMATIC DIAGRAM			
SCALE: NONE		DATE: 05/07/20	DWN. BY: GJG
DWG. No: 9033-5101-D		SHEET: 1 OF 1	CKD. BY: JMD
JOB: CIRCLE POWER PLANT UPGRADE			
Sturgeon ELECTRIC		1301 E 64th AVENUE ANCHORAGE, AK 99518 PHONE: 907.344.0321 https://sturgeonelectric.com	

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(425)-485-1778 www.controlledpowerinc.com

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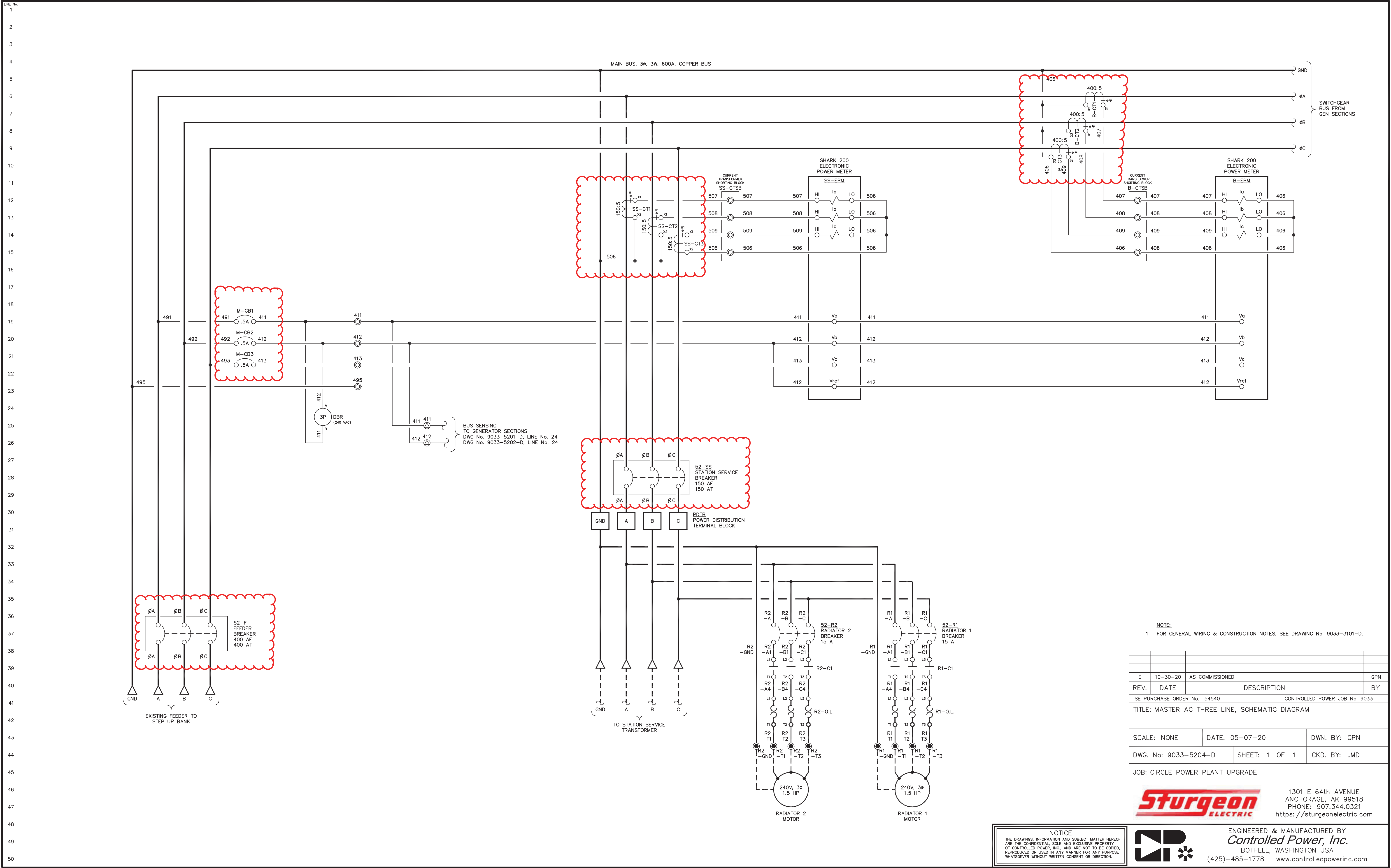
NOTE:
1. FOR GENERAL WIRING & CONSTRUCTION NOTES, SEE DRAWING No. 9033-3101-D.

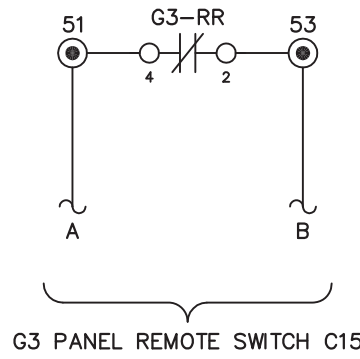
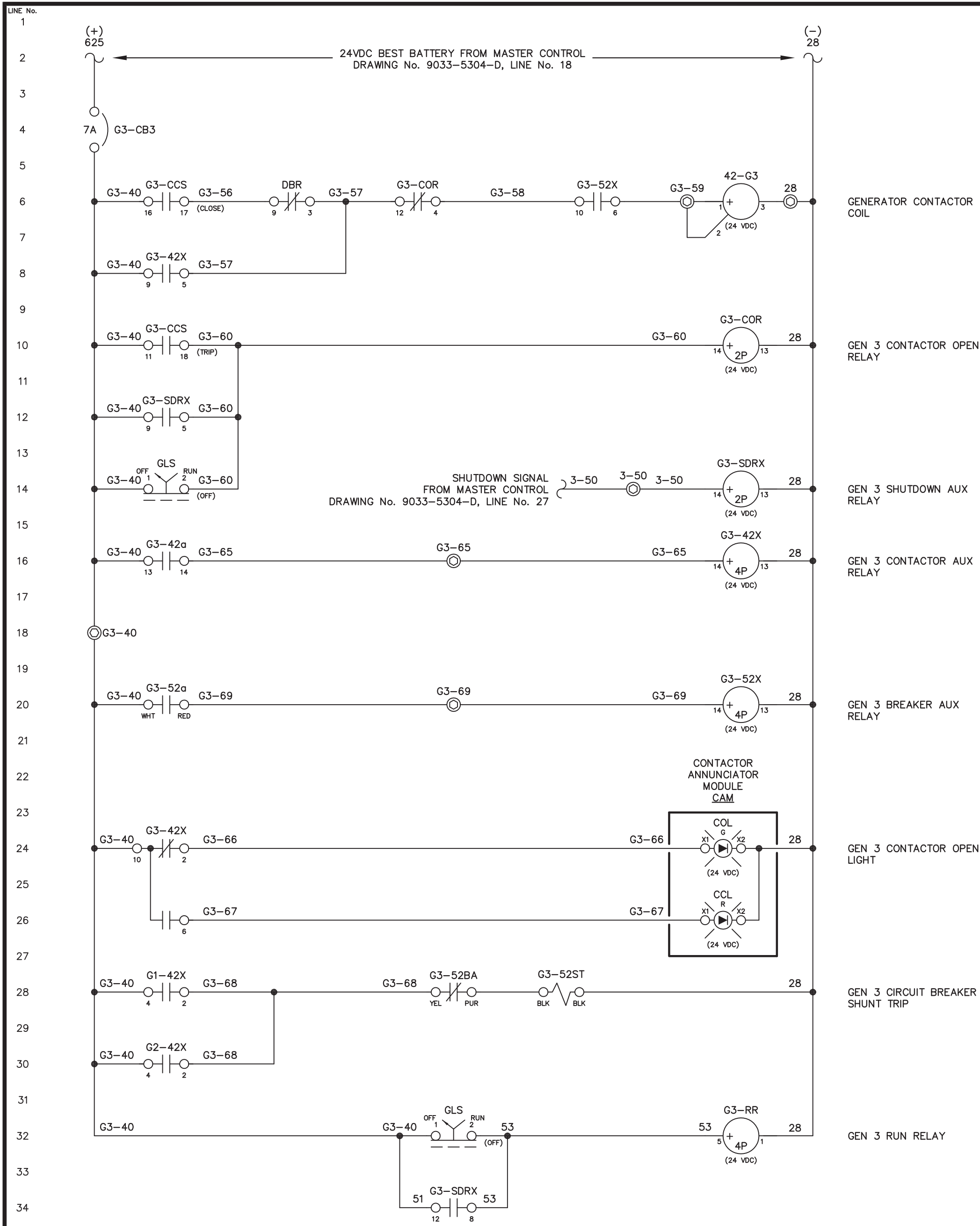
E	10-30-20	AS COMMISSIONED	GPN
REV.	DATE	DESCRIPTION	BY
SE PURCHASE ORDER No. 54540		CONTROLLED POWER JOB No. 9033	
TITLE: GENERATOR 3 AC THREE LINE, SCHEMATIC DIAGRAM			
SCALE: NONE		DATE: 05-07-20	DWN. BY: GPN
DWG. No: 9033-5203-D		SHEET: 1 OF 1	CKD. BY: JMD
JOB: CIRCLE POWER PLANT UPGRADE			
Sturgeon ELECTRIC		1301 E 64th AVENUE ANCHORAGE, AK 99518 PHONE: 907.344.0321 https://sturgeonelectric.com	

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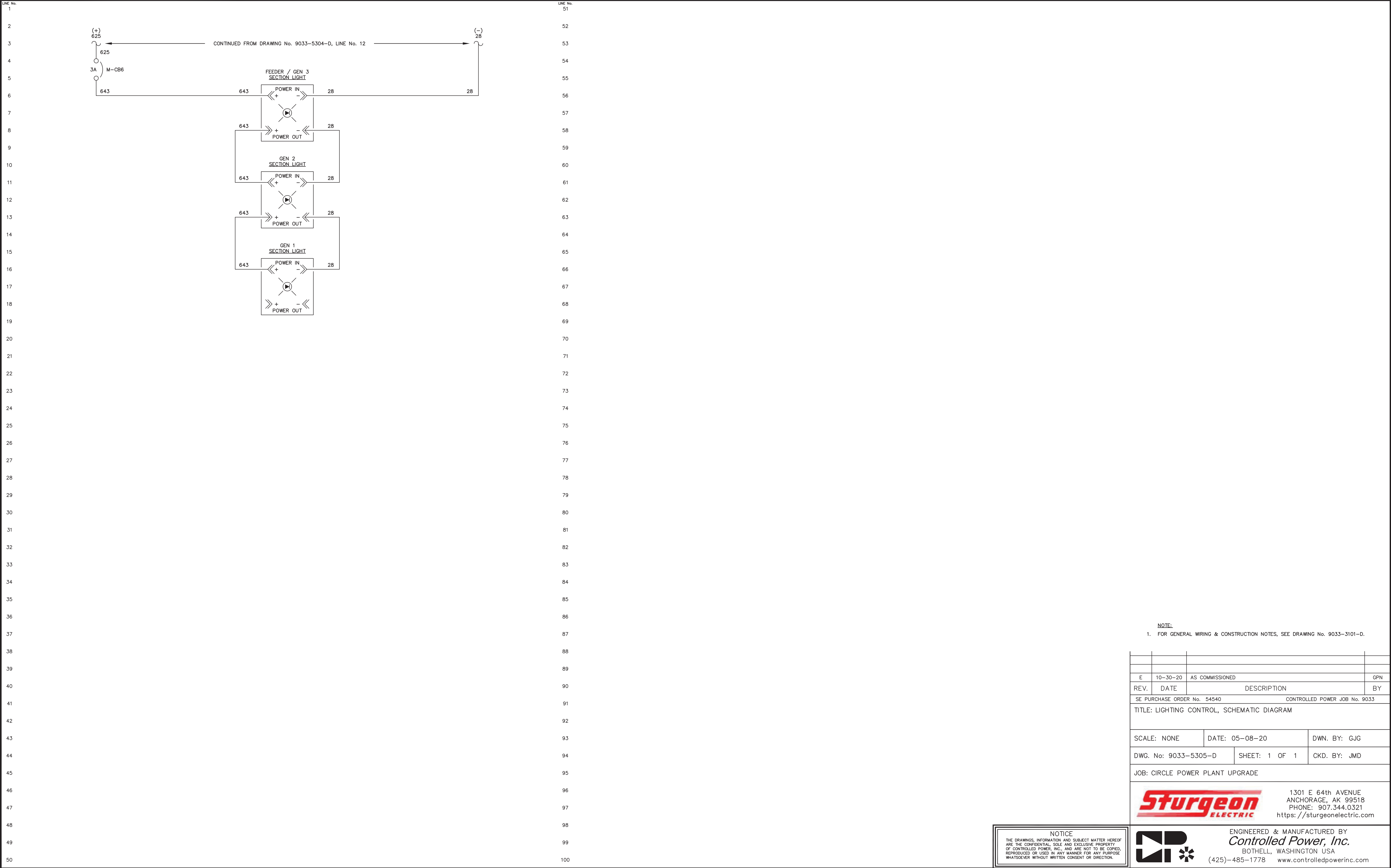
NOTE:
1. FOR GENERAL WIRING & CONSTRUCTION NOTES, SEE DRAWING No. 9033-3101-D.

E	10-30-20	AS COMMISSIONED	GPN
REV.	DATE	DESCRIPTION	BY
SE PURCHASE ORDER No. 54540		CONTROLLED POWER JOB No. 9033	
TITLE: GENERATOR 3 DC CONTROL, SCHEMATIC DIAGRAM			
SCALE: NONE		DATE: 05-08-20	DWN. BY: GJG
DWG. No: 9033-5303-D		SHEET: 1 OF 1	CKD. BY: JMD
JOB: CIRCLE POWER PLANT UPGRADE			
Sturgeon ELECTRIC		1301 E 64th AVENUE ANCHORAGE, AK 99518 PHONE: 907.344.0321 https://sturgeonelectric.com	

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NOTE:

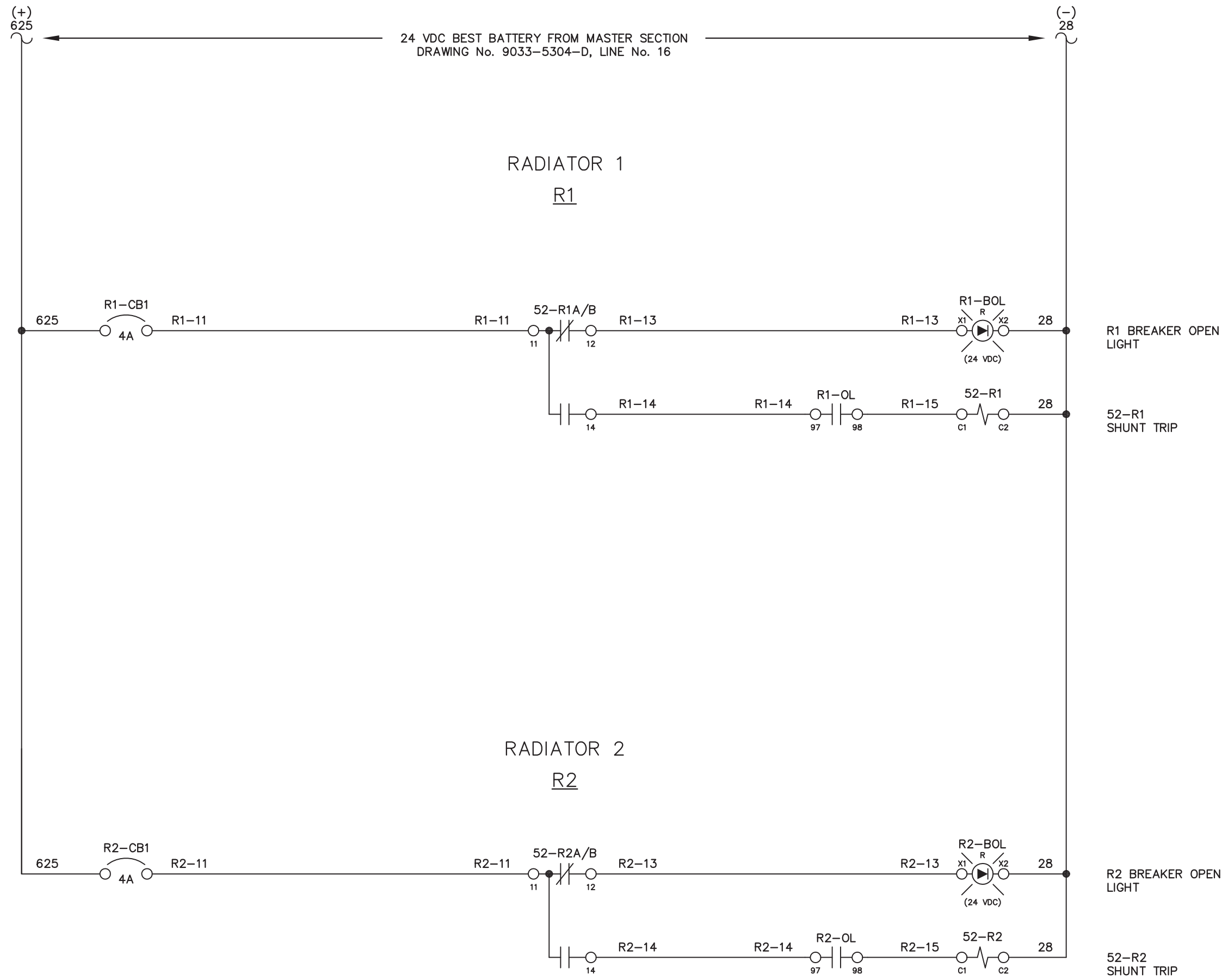
1. FOR GENERAL WIRING & CONSTRUCTION NOTES, SEE DRAWING No. 9033-3101-D.

E	10-30-20	AS COMMISSIONED	GPN
REV.	DATE	DESCRIPTION	BY
SE PURCHASE ORDER No. 54540		CONTROLLED POWER JOB No. 9033	
TITLE: LIGHTING CONTROL, SCHEMATIC DIAGRAM			
SCALE: NONE		DATE: 05-08-20	DWN. BY: GJG
DWG. No: 9033-5305-D		SHEET: 1 OF 1	CKD. BY: JMD
JOB: CIRCLE POWER PLANT UPGRADE			
		1301 E 64th AVENUE ANCHORAGE, AK 99518 PHONE: 907.344.0321 https://sturgeonelectric.com	
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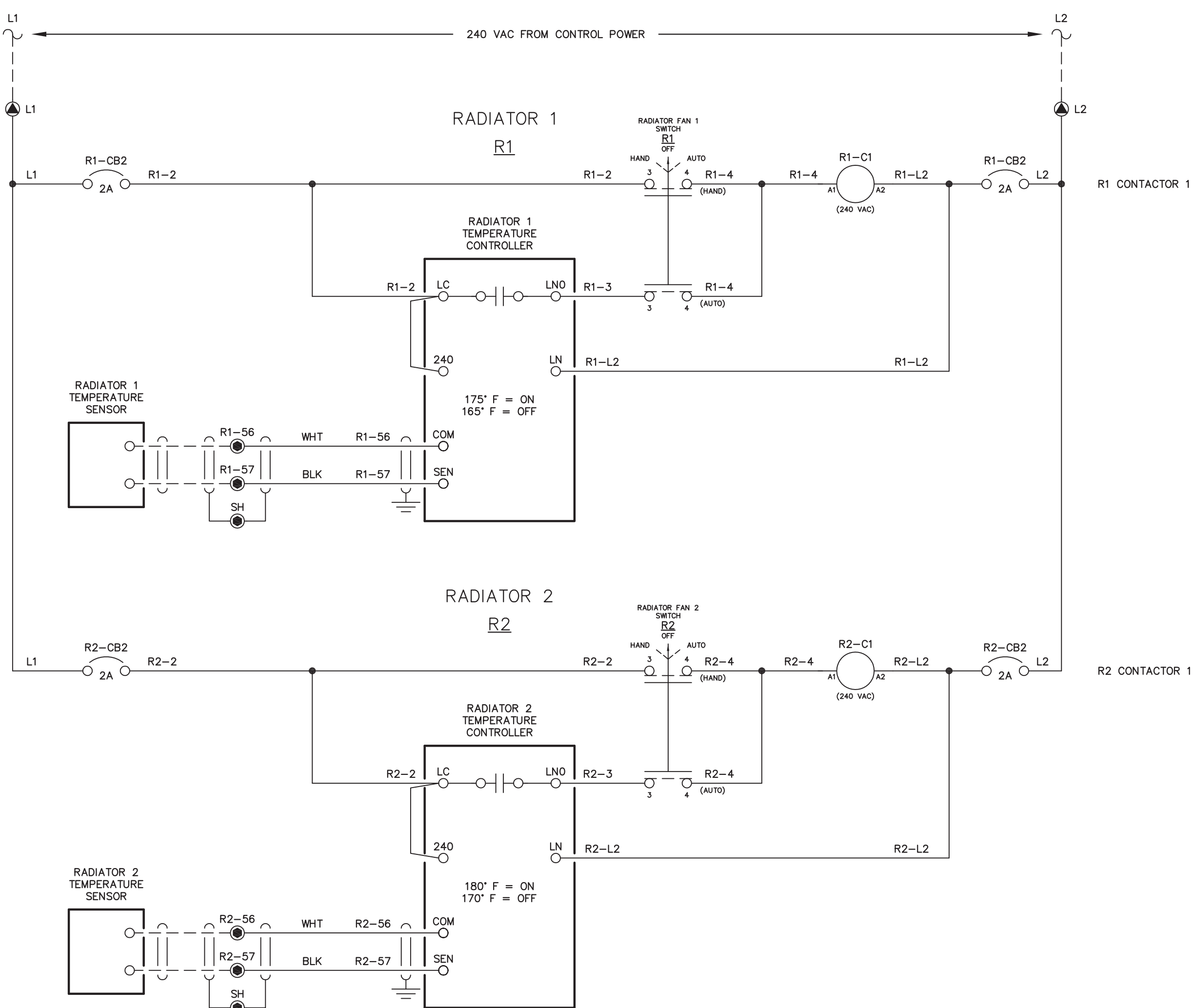
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NOTE:
1. FOR GENERAL WIRING & CONSTRUCTION NOTES, SEE DRAWING No. 9033-3101-D.

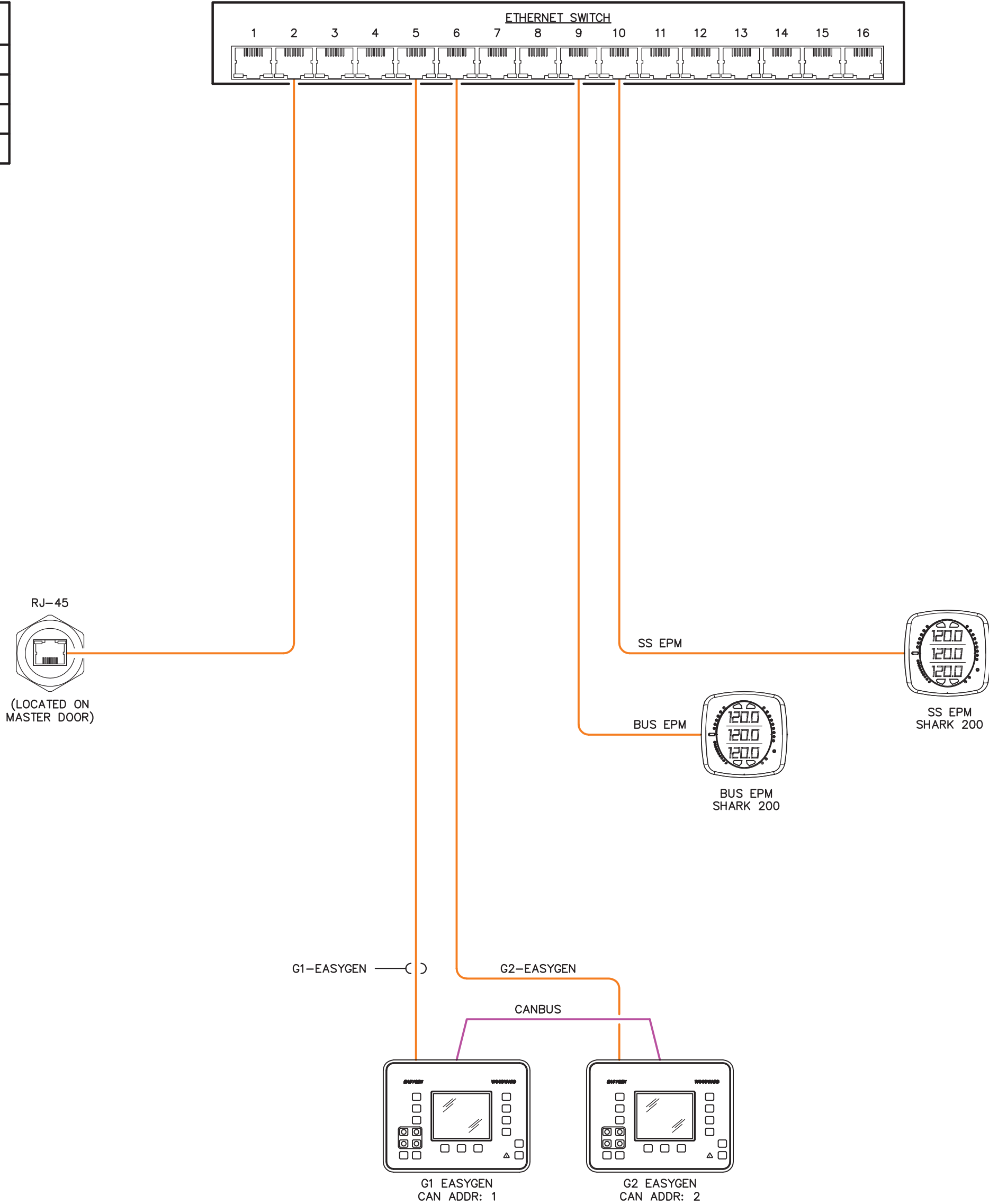
E	10-30-20	AS COMMISSIONED	GPN
REV.	DATE	DESCRIPTION	BY
SE PURCHASE ORDER No. 54540		CONTROLLED POWER JOB No. 9033	
TITLE: R1 & R2 CONTROL, SCHEMATIC DIAGRAM			
SCALE: NONE		DATE: 05-08-20	DWN. BY: GJG
DWG. No: 9033-5306-D		SHEET: 1 OF 1	CKD. BY: JMD
JOB: CIRCLE POWER PLANT UPGRADE			
Sturgeon ELECTRIC		1301 E 64th AVENUE ANCHORAGE, AK 99518 PHONE: 907.344.0321 https://sturgeonelectric.com	

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DEVICE	IP ADDRESS
BUS EPM	192.168.1.190
SS EPM	192.168.1.191
G1 EZGEN	192.168.1.161
G2 EZGEN	192.168.1.162



NOTE:
1. FOR GENERAL WIRING & CONSTRUCTION NOTES, SEE DRAWING No. 9033-3101-D.

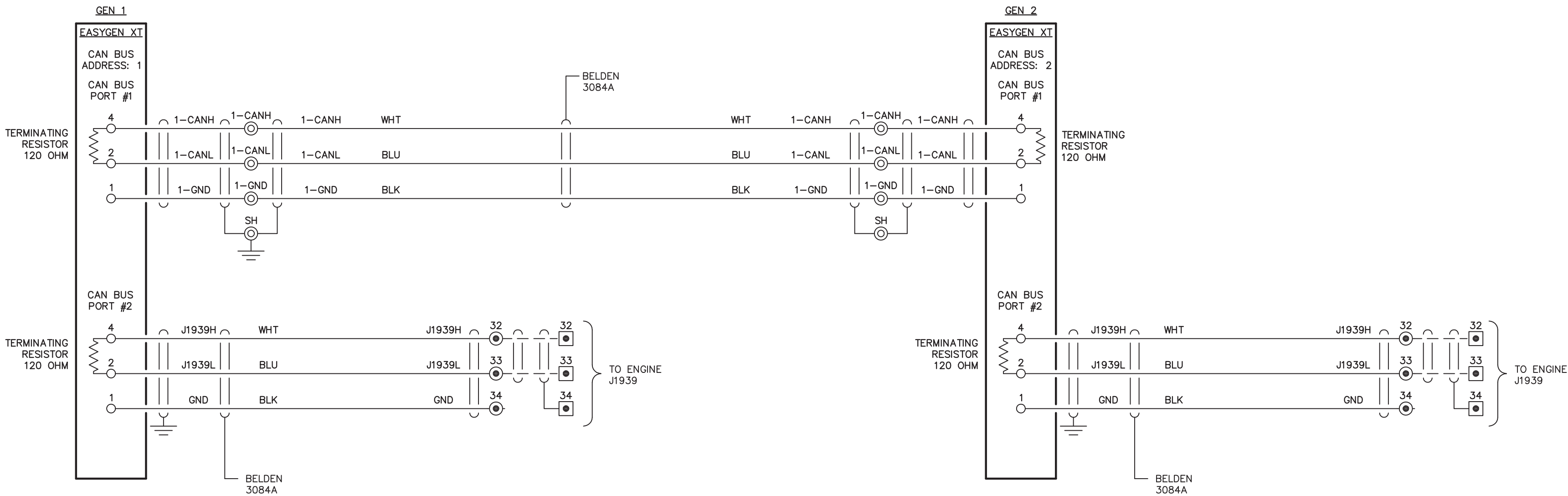
E	10-30-20	AS COMMISSIONED	GPN
REV.	DATE	DESCRIPTION	BY
SE PURCHASE ORDER No. 54540		CONTROLLED POWER JOB No. 9033	
TITLE: COMMUNICATION NETWORK, SCHEMATIC DIAGRAM			
SCALE: NONE		DATE: 05-08-20	DWN. BY: GJG
DWG. No: 9033-5601-D		SHEET: 1 OF 1	CKD. BY: JMD
JOB: CIRCLE POWER PLANT UPGRADE			
		1301 E 64th AVENUE ANCHORAGE, AK 99518 PHONE: 907.344.0321 https://sturgeonelectric.com	

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NOTE:
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E	10-30-20	AS COMMISSIONED	GPN
REV.	DATE	DESCRIPTION	BY
SE PURCHASE ORDER No. 54540		CONTROLLED POWER JOB No. 9033	
TITLE: COMMUNICATION NETWORK, SCHEMATIC DIAGRAM			
SCALE: NONE		DATE: 05-08-20	DWN. BY: GJG
DWG. No: 9033-5602-D		SHEET: 1 OF 1	CKD. BY: JMD
JOB: CIRCLE POWER PLANT UPGRADE			
		1301 E 64th AVENUE ANCHORAGE, AK 99518 PHONE: 907.344.0321 https://sturgeonelectric.com	

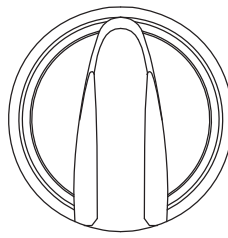
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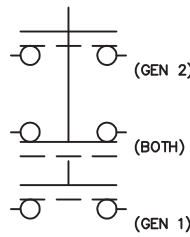
GENERATOR LEAD - LSS

○ LEAD GENERATOR ○
GEN 2 BOTH GEN 1



3 POS MAINTAINED

POS		
GEN 2	BOTH	GEN 1
↖	↓	↗
X		
	X	
		X

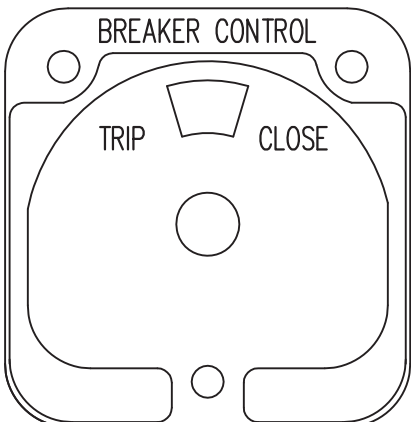


(GEN 2)

(BOTH)

(GEN 1)

CONTACTOR CONTROL SWITCH - G3-42CS

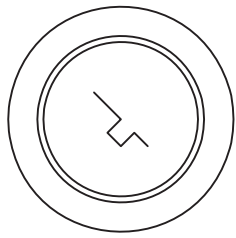


(ELECTROSWITCH 2438D)
PISTOL GRIP HANDLE
SPRING RETURN TO CENTER

DECK	CONTACTS				POS.	
	11	12	13	14	TRIP	NORM.
1	○	○	○	○	X	
	○	○	○	○		X

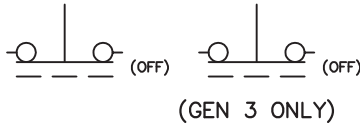
GENERATOR LOCKOUT SWITCH - GLS

○ GENERATOR ○
LOCKOUT FOR SERVICE
OFF RUN



KEY OPERATED
2 POS MAINTAINED

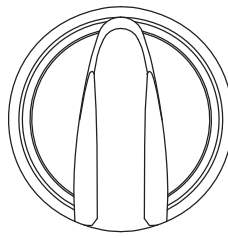
POS		
OFF	LOCK	RUN
↖	↓	↗
X		
	X	
		X



(GEN 3 ONLY)

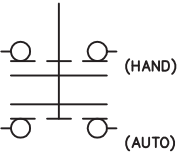
RADIATOR FAN 1 - R1

○ RADIATOR FAN 1 ○
HAND OFF AUTO



3 POS MAINTAINED

POS		
HAND	OFF	AUTO
↖	↓	↗
X		
	X	
		X

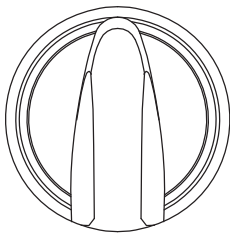


(HAND)

(AUTO)

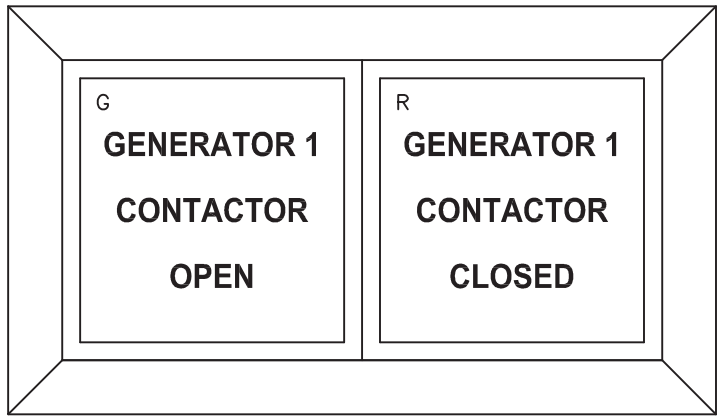
RADIATOR FAN 2 - R2

○ RADIATOR FAN 2 ○
HAND OFF AUTO

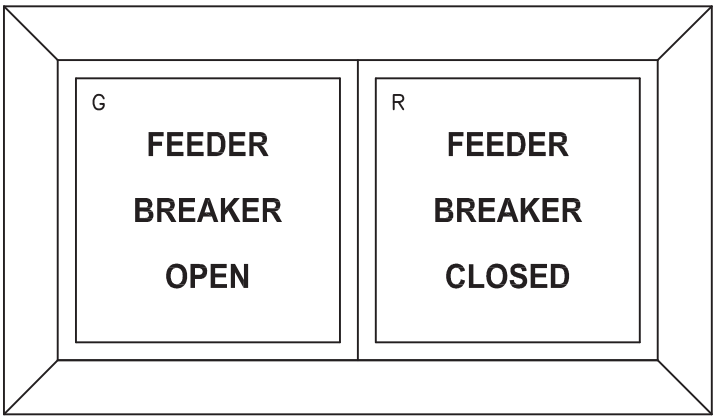


3 POS MAINTAINED

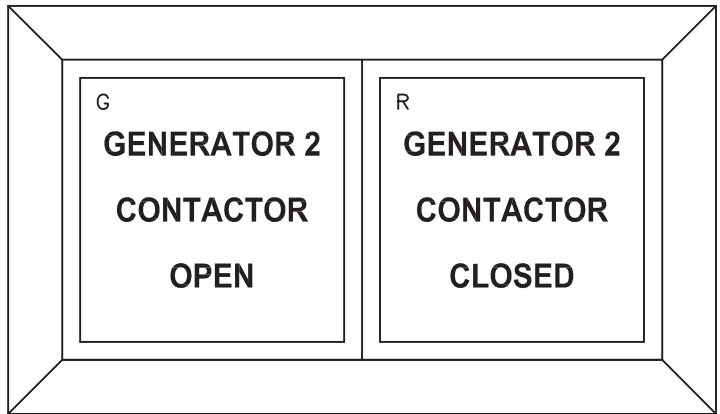
POS		
HAND	OFF	AUTO
↖	↓	↗
X		



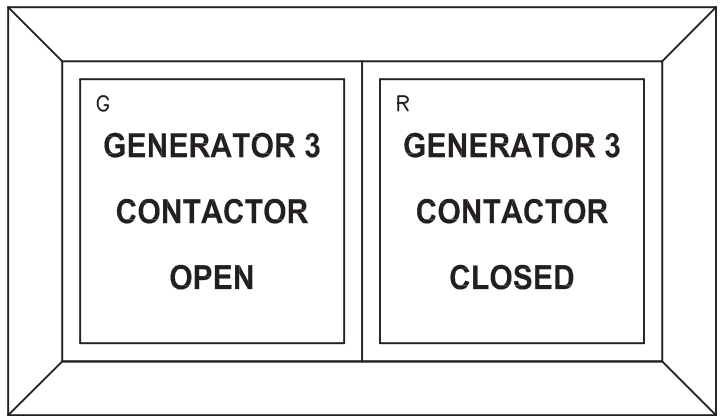
GEN 1 CONTACTOR ANNUNCIATOR
QTY 1



FEEDER BREAKER ANNUNCIATOR
QTY 1



GEN 2 CONTACTOR ANNUNCIATOR
QTY 1



GEN 3 CONTACTOR ANNUNCIATOR
QTY 1

E	10-30-20	AS COMMISSIONED	GPN
REV.	DATE	DESCRIPTION	BY
SE PURCHASE ORDER No. 54540		CONTROLLED POWER JOB No. 9033	
TITLE: ANNUNCIATOR WINDOWS, FABRICATION DIAGRAM			
SCALE: NONE		DATE: 05-08-20	DWN. BY: GJG
DWG. No: 9033-6202-D		SHEET: 1 OF 1	CKD. BY: JMD
JOB: CIRCLE POWER PLANT UPGRADE			
		1301 E 64th AVENUE ANCHORAGE, AK 99518 PHONE: 907.344.0321 https://sturgeonelectric.com	

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