

- A. Perform work in a neat and workmanlike manner in accordance with NECA 1 and, where applicable, NECA 130, except for mounting heights specified in those standards.
- B. Install products in accordance with manufacturer's instructions.
- C. Sensor Locations:
- Where Lighting Control Manufacturer Sensor Layout and Tuning service is specified in Part 2 under "LIGHTING CONTROLS - GENERAL REQUIREMENTS", locate sensors in accordance with layout provided by Lighting Control Manufacturer. Lighting Control Manufacturer may direct Contractor regarding sensor relocation should conditions require a deviation from locations indicated. Where Lighting Control Manufacturer Sensor Layout and Tuning service is not specified, locate sensors in accordance with Drawings.
- D. Lamp Burn-In: Operate lamps at full output for prescribed period per manufacturer's recommendations prior to use with any dimming controls. Replace lamps that fail prematurely due to improper lamp burn-in.
- E. LED Light Engine/Array Lead Length: Do not exceed 100 feet.
- F. Identify system components in accordance with Section 26 05 53.

3.03 FIELD QUALITY CONTROL

- A. Manufacturer's Full-Scope Start-Up Service is required.
- B. Manufacturer's Full-Scope Start-Up Service: Provide manufacturer's On-Site Full-Scope Start-Up Service.
- On-Site Full-Scope Start-Up Service; Lutron LSC-OS-SU-VIVE: Manufacturer's authorized Service Representative to conduct site visit upon completion of lighting control system installation to perform system start-up and verify proper operation:
 - Verify connection of power wiring and load circuits.
 - Verify connection and location of controls.
 - Energize wireless hubs.
 - Associate occupancy/vacancy sensors, daylight sensors, wireless remotes, and wall stations to load control devices.
 - Provide initial rough calibration of sensors; fine-tuning of sensors is responsibility of Contractor unless provided by Lighting Control Manufacturer as part of Sensor Layout and Tuning service where specified in Part 2 under "LIGHTING CONTROLS - GENERAL REQUIREMENTS".
 - Program timedclock schedules per approved sequence of operations.
 - Configure load shed parameters per approved sequence of operations.
 - Verify system operation control by control.
 - Obtain sign-off on system functions.
 - Train Owner's representative on system capabilities, operation, and maintenance, as specified in Part 3 under "Closeout Activities".

3.04 CLOSEOUT ACTIVITIES

- A. Demonstration:
- Demonstrate proper operation of lighting control devices to Engineer, and correct deficiencies or make adjustments as directed.
- B. Training:
- Include services of manufacturer's certified service representative to perform on-site training of Owner's personnel on operation, adjustment, and maintenance of lighting control system as part of on-site system start-up services.

SECTION 26 21 00 LOW-VOLTAGE ELECTRICAL SERVICE ENTRANCE

PART 2 PRODUCTS

1.01 ELECTRICAL SERVICE REQUIREMENTS

- A. Provide new electrical service consisting of all required conduits, conductors, equipment, metering provisions, supports, accessories, etc. as necessary for connection between Utility Company point of supply and service entrance equipment.
- B. Electrical Service Characteristics: As indicated on drawings.
- C. Products Furnished by Contractor: Comply with Utility Company requirements.

PART 3 EXECUTION

2.01 INSTALLATION

- A. Install products in accordance with manufacturer's instructions and Utility Company requirements.
- B. Perform work in accordance with NECA 1 (general workmanship).
- C. Arrange equipment to provide minimum clearances and required maintenance access.

SECTION 26 24 16 PANELBOARDS

PART 1 GENERAL

1.01 SUBMITTALS

1.02 QUALITY ASSURANCE

- A. Comply with requirements of NFPA 70.

PART 2 PRODUCTS

2.01 PANELBOARDS - GENERAL REQUIREMENTS

- A. Provide products listed, classified, and labeled as suitable for the purpose intended.
- B. Short Circuit Current Rating:
- Provide panelboards with listed short circuit current rating not less than the available fault current at the installed location as indicated on the drawings.
- C. Panelboards Used for Service Entrance: Listed and labeled as suitable for use as service equipment according to UL 869A.
- D. Mains: Configure for top or bottom incoming feed as indicated or as required for the installation.
- E. Bussing: Sized in accordance with UL 67 temperature rise requirements.
- Provide fully rated neutral bus unless otherwise indicated, with a suitable lug for each feeder or branch circuit requiring a neutral connection.
 - Provide solidly bonded equipment ground bus in each panelboard, with a suitable lug for each feeder and branch circuit equipment grounding conductor.
- F. Conductor Terminations: Suitable for use with the conductors to be installed.
- G. Enclosures: Comply with NEMA EN 10250, and list and label as complying with UL 50 and UL 50E.
- Boxes: Galvanized steel unless otherwise indicated.
 - Provide wiring gutters sized to accommodate the conductors to be installed.
 - Fronts:
 - Lockable Doors: All locks keyed alike unless otherwise indicated.
- H. Future Provisions: Prepare all unused spaces for future installation of devices including bussing, connectors, mounting hardware and all other required provisions.
- I. Surge Protective Devices: Where factory-installed, internally mounted surge protective devices are provided in accordance with Section 26 43 00, list and label panelboards as a complete assembly including surge protective device.
- J. Ground Fault Protection: Where ground-fault protection is indicated, provide system listed and labeled as complying with UL 1053.

2.02 POWER DISTRIBUTION PANELBOARDS

- A. Description: Panelboards complying with NEMA PB 1, power and feeder distribution type, circuit breaker type, and listed and labeled as complying with UL 67; ratings, configurations and features as indicated on the drawings.
- B. Conductor Terminations:
- Main and Neutral Lug Material: Aluminum, suitable for terminating aluminum or copper conductors.
 - Main and Neutral Lug Type: Mechanical.
- C. Bussing:
- Phase and Neutral Bus Material: Aluminum.
 - Ground Bus Material: Aluminum.
- D. Circuit Breakers:
- Provide bolt-on type or plug-in type secured with locking mechanical restraints.
- E. Enclosures:
- Provide surface-mounted enclosures unless otherwise indicated.
 - Fronts: Provide door-in-door trim with hinged cover for access to load terminals and wiring gutters, and separate lockable hinged door with concealed hinges for access to overcurrent protective device handles without exposing live parts.
 - Provide clear plastic circuit directory holder mounted on inside of door.

2.03 LIGHTING AND APPLIANCE PANELBOARDS

- A. Description: Panelboards complying with NEMA PB 1, lighting and appliance branch circuit type, circuit breaker type, and listed and labeled as complying with UL 67; ratings, configurations and features as indicated on the drawings.
- B. Conductor Terminations:
- Main and Neutral Lug Material: Aluminum, suitable for terminating aluminum or copper conductors.

- Main and Neutral Lug Type: Mechanical.
- C. Bussing:
- Phase and Neutral Bus Material: Aluminum.
 - Ground Bus Material: Aluminum.
- D. Circuit Breakers: Thermal magnetic bolt-on type unless otherwise indicated.
- E. Enclosures:
- Provide surface-mounted or flush-mounted enclosures as indicated.
 - Provide clear plastic circuit directory holder mounted on inside of door.

2.04 OVERCURRENT PROTECTIVE DEVICES

- A. Molded Case Circuit Breakers:
- Description: Quick-make, quick-break, over center toggle, trip-free, trip-indicating circuit breakers listed and labeled as complying with UL 489, and complying with FS W-C-375 where applicable; ratings, configurations, and features as indicated on the drawings.
 - Interrupting Capacity:
 - Provide circuit breakers with interrupting capacity as required to provide the short circuit current rating indicated, but not less than:
 - Fully Rated Systems: Provide circuit breakers with interrupting capacity not less than the short circuit current rating indicated.
 - Conductor Terminations:
 - Lug Material: Aluminum, suitable for terminating aluminum or copper conductors.
 - Thermal Magnetic Circuit Breakers: For each pole, furnish thermal inverse time tripping element for overload protection and magnetic instantaneous tripping element for short circuit protection.
 - Electronic Trip Circuit Breakers: Furnish solid state, microprocessor-based, true rms sensing trip units.
 - Provide the following circuit breaker types where indicated:
 - Ground Fault Circuit Interrupter (GFCI) Circuit Breakers: Listed as complying with UL 943, class A for protection of personnel.
 - Ground Fault Equipment Protection Circuit Breakers: Designed to trip at 30 mA for protection of equipment.
 - 100 Percent Rated Circuit Breakers: Listed for application within the panelboard where installed at 100 percent of the continuous current rating.
 - Provide the following features and accessories where indicated or where required to complete installation:
 - Shunt Trip: Provide coil voltage as required for connection to indicated trip actuator.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Perform work in accordance with NECA 1 (general workmanship).
- B. Install products in accordance with manufacturer's instructions.
- C. Install panelboards in accordance with NECA 407 and NEMA PB 1.1.
- D. Arrange equipment to provide minimum clearances in accordance with manufacturer's instructions and NFPA 70.
- E. Provide required support and attachment in accordance with Section 26 05 29.
- F. Mount panelboards such that the highest position of any operating handle for circuit breakers or switches does not exceed 79 inches above the floor or working platform.
- G. Provide minimum of six spare 1 inch trade size conduits out of each flush-mounted panelboard stubbed into accessible space above ceiling and below floor.
- H. Provide grounding and bonding in accordance with Section 26 05 26.
- I. Set field-adjustable ground fault protection pickup and time delay settings as indicated.
- J. Provide filler plates to cover unused spaces in panelboards.

SECTION 26 27 26 WIRING DEVICES

PART 1 GENERAL

1.01 SUBMITTALS

PART 2 PRODUCTS

2.01 WIRING DEVICES - GENERAL REQUIREMENTS

- A. Provide wiring devices suitable for intended use with ratings adequate for load served.
- B. Except where explicitly permitted, substitution of combination switch-and-receptacle devices for separate switches and receptacles is not permitted.
- C. Prewired Wiring Device and Outlet Box Assemblies: Factory-assembled products complying with requirements for wiring devices, boxes, and wiring methods may be used in lieu of field-assembled products.
- D. Wiring Device Applications:
- Receptacles Installed Outdoors or in Damp or Wet Locations: Use weather-resistant GFCI receptacles with weatherproof covers.
 - Provide GFCI protection for:
 - Receptacles Serving Computers: Use isolated ground receptacles.

2.02 WALL SWITCHES

- A. General Requirements: AC only, quiet operating, general-use snap switches with silver alloy contacts, complying with NEMA WD 1 and NEMA WD 6, and listed as complying with UL 20 and where applicable, FS W-S-896; types as indicated on the drawings.

2.03 WALL DIMMERS

- A. General Requirements: Solid-state with continuous full-range even control following square law dimming curve, integral radio frequency interference filtering, power failure preset memory, air gap switch accessible without removing wall plate, complying with NEMA WD 1 and NEMA WD 6, and listed as complying with UL 1472; types and ratings suitable for load controlled as indicated on the drawings.

2.04 RECEPTACLES

- A. General Requirements: Self-grounding, complying with NEMA WD 1 and NEMA WD 6, and listed as complying with UL 498, and where applicable, FS W-C-596; types as indicated on the drawings.
- NEMA configurations specified are according to NEMA WD 6.
 - Hospital Grade Receptacles: Listed as complying with UL 498 Supplement SD, with green dot hospital grade mark on device face.
- B. Convenience Receptacles:
- Standard Convenience Receptacles: Hospital grade, 20A, 125V, NEMA 5-20R; single or duplex as indicated on the drawings.
- C. GFCI Receptacles:
- General Requirements: Self-testing, with feed-through protection and light to indicate ground fault tripped condition and loss of protection; listed as complying with UL 943, class A.
- D. AFCI Receptacles:
- General Requirements: Feed-through protection and light to indicate arc fault tripped condition and loss of protection; listed as complying with UL 1699A.
- E. USB Charging Devices:
- General Requirements: Listed as complying with UL 1310.
- F. Surge Protection Receptacles:
- General Requirements: Listed and labeled as complying with UL 1449, Type 2 or 3.
 - Energy Dissipation: Not less than 240 J per mode.
 - Protected Modes: L-N, L-G, N-G.
 - UL 1449 Voltage Protection Rating (VPR): Not more than 700 V for L-N, L-G modes and 1200 V for N-G mode.
 - Diagnostics:
 - Visual Notification: Provide indicator light to report functional status of surge protection.
 - Locking Receptacles: Industrial specification grade, configuration as indicated on the drawings.

2.05 WALL PLATES AND COVERS

- A. Wall Plates: Comply with UL 514D.
- Configuration: One piece cover as required for quantity and types of corresponding wiring devices.
 - Size: Standard; _____.
 - Screws: Metal with slotted heads finished to match wall plate finish.

2.06 FLOOR BOX SERVICE FITTINGS

- A. Description: Service fittings compatible with floor boxes provided under Section 26 05 33.16 with components, adapters, and trims required for complete installation.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Perform work in accordance with NECA 1 (general workmanship) and, where applicable, NECA 130, including mounting heights specified in those standards unless otherwise indicated.
- B. Coordinate locations of outlet boxes provided under Section 26 05 33.16 as required for installation of wiring devices provided under this section.
- C. Install wiring devices in accordance with manufacturer's instructions.
- D. Install permanent barrier between ganged wiring devices when voltage between adjacent devices exceeds 300 V.

- E. Connect wiring devices by wrapping conductor clockwise 3/4 turn around screw terminal and tightening to proper torque specified by the manufacturer. Where present, do not use push-in pressure terminals that do not rely on screw-actuated binding.
- F. Unless otherwise indicated, connect wiring device grounding terminal to branch circuit equipment grounding conductor and to outlet box with bonding jumper.
- G. Install wall dimmers to achieve full rating specified and indicated after derating for ganging as instructed by manufacturer.
- H. Do not share neutral conductor on branch circuits utilizing wall dimmers.

SECTION 26 28 13 FUSES

PART 2 PRODUCTS

1.01 FUSES

- A. Provide products listed, classified, and labeled as suitable for the purpose intended.
- B. Unless specifically indicated to be excluded, provide fuses for all fusible equipment as required for a complete operating system.
- C. Provide fuses of the same type, rating, and manufacturer within the same switch.
- D. Comply with UL 248-1.
- E. Unless otherwise indicated, provide cartridge type fuses complying with NEMA FU 1, Class and ratings as indicated.
- F. Voltage Rating: Suitable for circuit voltage.

SECTION 26 28 16.13 ENCLOSED CIRCUIT BREAKERS

PART 2 PRODUCTS

1.01 ENCLOSED CIRCUIT BREAKERS

- A. Description: Units consisting of molded case circuit breakers individually mounted in enclosures.
- B. Provide products listed, classified, and labeled as suitable for the purpose intended.
- C. Short Circuit Current Rating:
- D. Conductor Terminations: Suitable for use with the conductors to be installed.
- E. Provide solidly bonded equipment ground bus in each enclosed circuit breaker, with a suitable lug for terminating each equipment grounding conductor.
- F. Enclosures: Comply with NEMA EN 10250, and list and label as complying with UL 50 and UL 50E.
- G. Provide externally operable handle with means for locking in the OFF position.

1.02 MOLDED CASE CIRCUIT BREAKERS

- A. Description: Quick-make, quick-break, over center toggle, trip-free, trip-indicating circuit breakers listed and labeled as complying with UL 489, and complying with FS W-C-375 where applicable; ratings, configurations, and features as indicated on the drawings.
- B. Interrupting Capacity:
- Provide circuit breakers with interrupting capacity as required to provide the short circuit current rating indicated, but not less than:
 - Fully Rated Systems: Provide circuit breakers with interrupting capacity not less than the short circuit current rating indicated.
- C. Conductor Terminations:
- Lug Material: Aluminum, suitable for terminating aluminum or copper conductors.

SECTION 26 28 16.16 ENCLOSED SWITCHES

PART 1 GENERAL

1.01 SUBMITTALS

PART 2 PRODUCTS

2.01 ENCLOSED SAFETY SWITCHES

- A. Description: Quick-make, quick-break enclosed safety switches listed and labeled as complying with UL 98; heavy duty; ratings, configurations, and features as indicated on the drawings.
- B. Provide products listed, classified, and labeled as suitable for the purpose intended.
- C. Horsepower Rating: Suitable for connected load.
- D. Voltage Rating: Suitable for circuit voltage.
- E. Short Circuit Current Rating:
- F. Conductor Terminations: Suitable for use with the conductors to be installed.
- G. Provide solidly bonded equipment ground bus in each enclosed safety switch, with a suitable lug for terminating each equipment grounding conductor.
- H. Enclosures: Comply with NEMA EN 10250, and list and label as complying with UL 50 and UL 50E.
- I. Provide safety interlock to prevent opening the cover with the switch in the ON position with capability of overriding interlock for testing purposes.
- J. Heavy Duty Switches:
- Comply with NEMA BS 31047.
 - Conductor Terminations:
 - Lug Material: Aluminum, suitable for terminating aluminum or copper conductors.
 - Provide externally operable handle with means for locking in the OFF position, capable of accepting three padlocks.

2.02 ENCLOSED FUSED POWER-CIRCUIT DEVICES

- A. Description: Quick-make, quick-break, dead-front bolted-pressure contact switches and high-pressure butt contact switches listed and labeled as complying with UL 977; ratings, configurations, and features as indicated on drawings.
- B. Bolted-Pressure Contact Switches: Devices with additional pressure or clamping action provided at both ends of switch blades when blades are in fully closed position.
- C. High-Pressure Butt Contact Switches: Devices with butt-type contacts and spring-charged mechanism.
- D. Fuse Clips: As required to accept Class L fuses.
- E. Enclosures: Listed and labeled as complying with UL 50 and UL 50E.

SECTION 26 32 13 ENGINE GENERATORS

PART 1 GENERAL

1.01 SUBMITTALS

- A. Product Data: Provide manufacturer's standard catalog pages and data sheets for each product, including ratings, configurations, dimensions, finishes, weights, service condition requirements, and installed features. Include alternator starting capabilities, engine fuel consumption rates, and cooling, combustion air, and exhaust requirements.
- Include generator set sound level test data.
- B. Manufacturer's factory emissions certification.

1.02 QUALITY ASSURANCE

- A. Comply with the following:
- NFPA 70 (National Electrical Code).
 - NFPA 37 (Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines).

PART 2 PRODUCTS

2.01 PACKAGED ENGINE GENERATOR SYSTEM

- A. Provide new engine generator system consisting of all required equipment, sensors, conduit, boxes, wiring, piping, supports, accessories, system programming, etc. as necessary for a complete operating system that provides the functional intent indicated.
- B. Provide products listed, classified, and labeled as suitable for the purpose intended.
- C. System Description:
- Application: Emergency/standby.
 - Configuration: Single packaged engine generator set operated independently (not in parallel).
- D. Packaged Engine Generator Set:
- Type: Gaseous (spark ignition).



FOR PERMIT &
CONSTRUCTION

Revision Schedule		Description
Rev. #	Date	

NEW Arcare MEDICAL OFFICE BUILDING 2709 Massard Rd FT. SMITH, AR 72903	Arcare 117 S. 2ND ST. AUGUSTA, AR 72006
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DATE 06-15-2026	DRAWN BY CH
PROJECT # 2517	CHECKED BY JT

SHEET E003 ELECTRICAL SPECIFICATIONS
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