Addendum No. 1

To

Contract Documents, Specifications, and Drawings For

Salem Downtown Sidewalk Improvements TAP 9901 (520) Salem, Missouri

To whom it may concern:

The Contract Documents, Specifications, and Drawings covering the construction of the Salem Downtown Sidewalk Improvements TAP 9901 (520) are hereby amended as follows:

<u>GENERAL</u>

- A. The attached Prebid Meeting Minutes shall be added to, and become part of bidding and contract documents.
- B. Q: For the lighting & receptacle distribution panel and utility riser poles, it states the enclosure can be stainless steel or aluminum. Is raw aluminum acceptable? Raw aluminum is acceptable.
- C. Q: Is the service a true 400A service or is it 320A with a 400A peak? Yes, 320A with 400A peak.
- D. Q: Is the underground service pedestal to have a meter? The local electric utility will have a pole with metering a little to the south of the proposed control panel location.
- E. Q: Are iron truncated domes acceptable? Yes.
- F. The section of sidewalk in front of the Bank of Salem (STA 1+92 to 2+69) shall utilize SikaTop 122 Plus concrete topper or equivalent to minimize impact to the existing sidewalk per the attached amended sheet SW-1. SikaTop will account for ~360 sf of the sidewalk work.
- G. State and Federal Wage Rates presented in the Bid Package remain current.
- H. Q: Conflicting notes on size and quantity of sleeves on sheets E-101 and E-104. See attached amended sheet E-101 & E-104.
- I. Q: Conflicting notes on E-104, note 13 regarding spare parts. See attached amended sheet E-104.
- J. Q: Sheet 106 notes under "Owner-Local Responsibilities:" that they will furnish and install the utility secondary electric service. However, under "Contractor Responsibilities" it notes that the contractor should furnish and install "All electric UGE secondary service entrance conduit systems, conductors". This seems like a contradiction. We need to know who is responsible with providing the service entrance conduit and conductors or in other words, the "secondary electric service". If the contractor is responsible for the service, the transformer pole, pad-mount transformer, or secondary electric pedestal needs to be defined so we know how much trenching and/or

boring, conduit, and wire to include in our bid. See attached amended sheet E-106.

K. The bid opening date has been changed to 2/16/24 at 1:45 pm. The bid opening will take place at 202 N Washington St. Salem, MO 65560. However, bids are to be delivered to 400 N Iron St. Salem, MO 65560 by 1:30 pm on 2/16/24.

Bidder shall acknowledge receipt of this addendum by completing the acknowledgement space provided in the Bid Form.

Date: February 13, 2024 ARCHER-ELGIN

Engineering, Surveying & Architecture Rolla, Missouri





Salem – Sidewalk Improvements MoDOT – TAP-9901(520) PRE-BID MEETING MINUTES 2/1/24

A. Introduction

1. Sign In – See sign in sheet

B. Project Brief

- 1. Location
 - a. Along portions of 4th Street from Iron Street to Washington Street.
- 2. Scope
 - a. This project involves the construction of ADA accessible sidewalks, crosswalks and street lighting along portions of 4th Street from Iron Street to Washington Street
 - b. Project is funded through the MoDOT Transportation Assistance Program (TAP), and is administered through MoDOT. Therefore the project is subject to all Federal and State requirements.

C. Bidder's Checklist

- 1. Item #1 Bidders not on approved contractor's list will result in exclusion of bid being considered.
- 2. Ensure e-verify is submitted with bids.
- 3. Acknowledge receipt of addenda.

D. Pages 5-14 – Notice to Contractors, Bid Form and Certifications

- 1. Receipt and opening of Bids Bids due no later than <u>1:30</u> p.m., February 14, 2024 at the City of Salem, City Hall located at **202 N. Washington St**.
- 2. Compliance with Contract Provisions MoDOT Specs and MUTCD
- 3. Period of service:
 - 150 consecutive days from the NTP
- 4. Liquidated Damages \$500/day
- 5. Bid Guaranty -5% by bond or cashier's check
- 6. Certifications for Federal Jobs Know what signing the bid is acknowledging.
- 7. Antidiscrimination
- 8. Federal and State inspection
- 9. Prevailing wage applies, higher of State or Federal to be paid. Federal to be checked 2/5.
- 10. Worker Eligibility E-Verify enrollment and inclusion of MOU to be submitted with Bid.
- 11. OSHA 10 hour training required.
- 12. Buy America applies to all products of steel, iron, or a coating of steel being permanently incorporated with the project.
- 13. Addenda acknowledgements include addenda with bid and/or complete acknowledgements and date on page 8.
- 14. Signature and Identity of Bidder to be included as part of the Bid Packet.

- 15. Trainees = 0 hours
- 16. Subcontractor Disclosure MoDOT Specification 102.7.12 waived for this work.
- 17. Project award to lowest responsible and responsive bid.
- 18. Material inspections by engineer, field certified personnel.
- 19. Prime Contractor requirements Must perform 30% of work with own forces.
- 20. Tax exempt project.
- 21. Line Item Bid Form
 - 1) NOTE: MODOT Specification 102.7.1 states that a unit price left blank shall be considered \$0 and the extension figure =\$0 accordingly with the contractor still being responsible for doing the work. Pulling the bid to avoid the loss will result in forfeiture of bid bond.
- 22. Bid Bond -5% submit with bids.
- 23. Subcontractor Disclosure Form
- 24. Certification Regarding Affirmative Action –Bidder to complete and submit with bid.
- 25. Pages 15-30 = DBE Participation forms DBE Goal is 4%.
 - 1) NOTE: bidder must have 4% or greater DBE participation (DBE is not MBE/WBE) DBE must be on MRCC approved list and perform a commercially useful function. Failure to obtain 4% will result in the project award being held up for administrative hearings to determine the bidders attempts to achieve the goal. See Paragraph 8, Pg 19.
 - 2) DBE goal applies to the Base Bid and alternate work if applicable.
- **E.** Agreement Page 31 completed upon review and authorization to award by MoDOT..
- F. Performance and Payment bonds No Maintenance bond
- **G.** General Provisions Starting at Page 39
 - 1. Pay Items, page 41-42. Ensure bids are inclusive of all items listed.
- H. Job Special Provisions (JSP)
 - 1. Work Zone Traffic Management
 - a. Schedule and plan to be submitted at preconstruction. This is a very busy road and access to work along portions will be very complicated. Traffic control will be highly scrutinized and monitored daily. Failure to comply with MUTCD and/or MoDOT TAs will result in shutdown of workforces with no additional allowance for compensation or work days.
 - b. Work hour restrictions 100 Acre Wood Rally (March), Memorial, Independence, & Labor Day.
 - 2. Contact for project questions Jordan Kellerman, 618-713-0348.
 - 3. Emergency numbers (Joe Chase to be added as contact: 573-729-3918)
 - 4. Utilities contacts per cover sheet.
 - 5. ADA Compliance Post construction check list provided pages 95-113. Link to download a copy is provided in the text of Section E.2, page 61.
 - 6. DBE requirements of contractors for verification of CUF (commercially useful function)
 - 7. Buy America

I. General Discussions

1. Wage Rates – Higher of Federal or State must be paid.

a. WORKERS WILL HAVE BI-WEEKLY WAGE RATE INTERVIEWS (form attached).

2. Work restrictions –

- a.General: The Contractor shall limit his use of the premises to the work indicated, so as to allow for Owner occupancy and use by the public.
- b.Use of the Site: Confine operations at the site to the areas permitted under the Contract. Portions of the site beyond areas on which work is indicated are not to be disturbed. Conform to site rules and regulations affecting the work while engaged in project construction.
 - 1. Keep existing walkways and roadways open to traffic at all times. Coordinate open cut crossings of roads to allow at least one lane of through traffic at all times.
 - 2. Do not unreasonably encumber the site with materials or equipment. Confine stockpiling of materials to a maximum of 10% of the site. If additional storage is necessary, obtain and pay for such storage off site.
 - 3. Obtain MoDOT Permits and utilize MUTCD traffic control devices and procedures when working on MoDOT Rights of Way.

3. Work Sequence:

- a. General: Construction sequence shall be in accordance with requirements herein subject to Owner's need for continuous operation of existing facilities:
 - 1. Contractor shall submit a phased demolition and construction plan that minimizes business interference and maintains property access to the Owner for consideration prior to starting the work.
 - 2. Contractor shall submit a proposed construction schedule to the Owner for consideration prior to starting the work.
- b.Continuous Service of Existing Facilities: Where the Work is on or adjacent to existing facilities, exercise caution and schedule operations to ensure that functioning of present facilities will not be endangered. Shutdown of Owner's operating facilities to perform the Work shall be held to a minimum length of time and shall be coordinated with Owner who shall have control over the timing and schedules of such shutdowns.
- c.Completed Areas: Owner intends to place in service, in accordance with the provisions for use of completed Work set forth in the General Conditions, the facilities as soon as they are sufficiently complete and ready for their intended use.
- d.Coordination: The Contractor shall be required to provide at least a seventy-two (72) hour notification of the shut down of any facilities necessary for him to perform his work. He shall also provide to the Owner, at least 2-3 weeks in advance, a written plan of work which identifies the stages, length of shutdown time, and other contingency plans for review and approval by the Engineer and Owner.
- 4. Construction staking/layout is the responsibility of the bidder/contractor. Bidders can contact Scott Volkmann at Archer-Elgin to discuss staking options at 573-364-6362 or 573-489-6636 (cell). Regardless of construction staking, Contractor will be responsible for constructing grades in accordance with PROWAG.

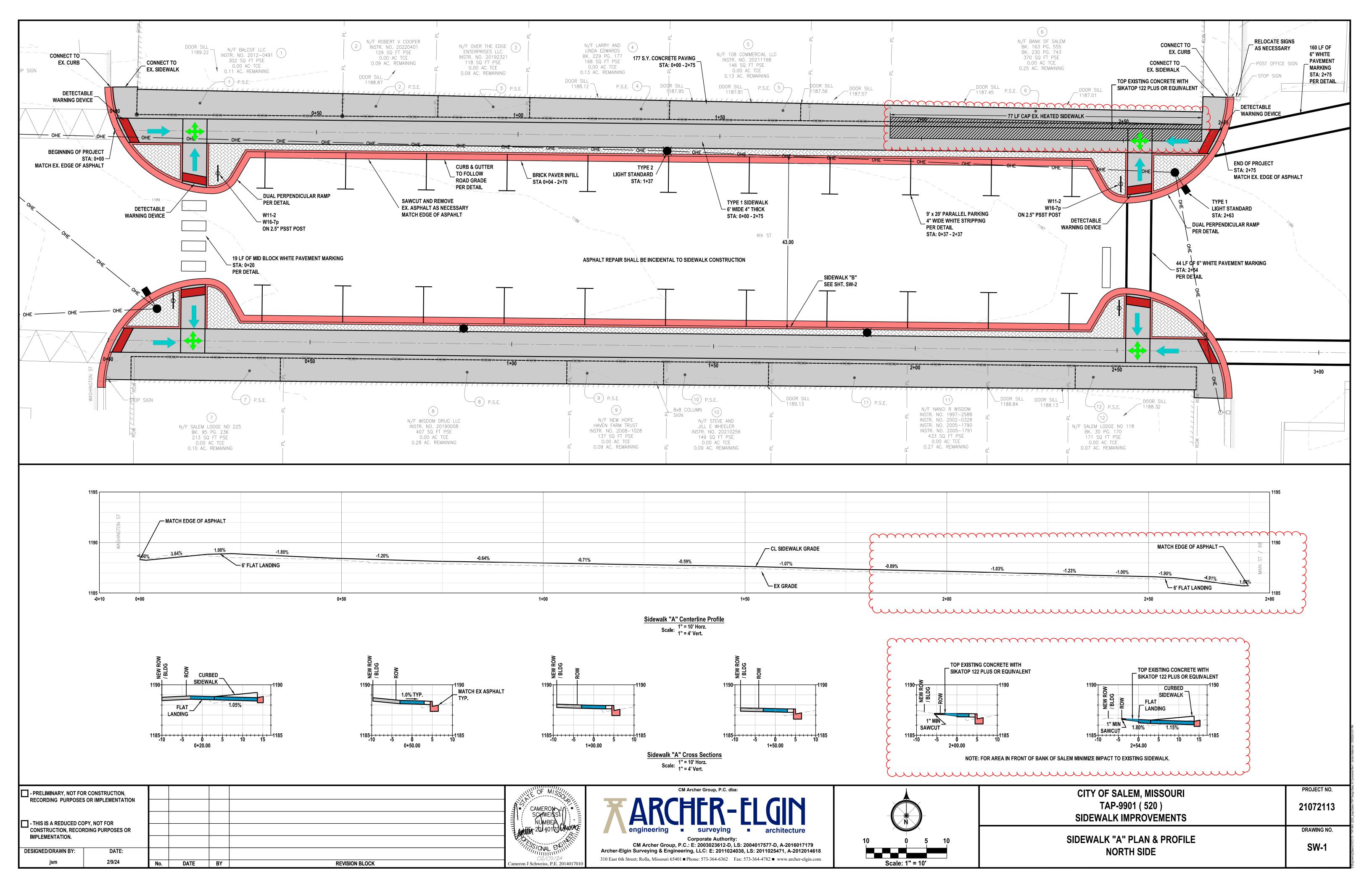
J.	Attendee's Questions/Comments:

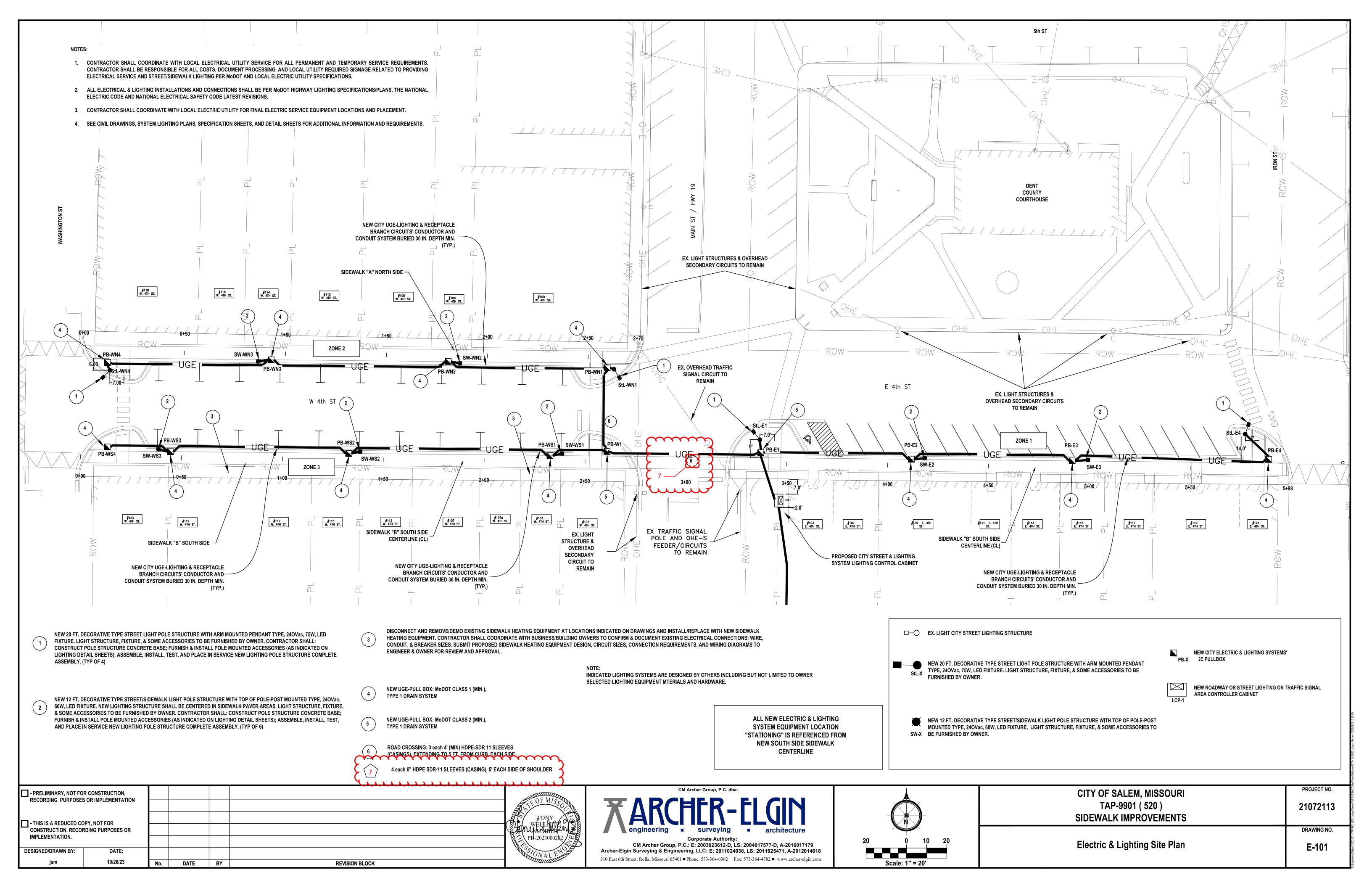
Salem Sidewalk Improvements – TAP-9901(520) Project No. 21072113

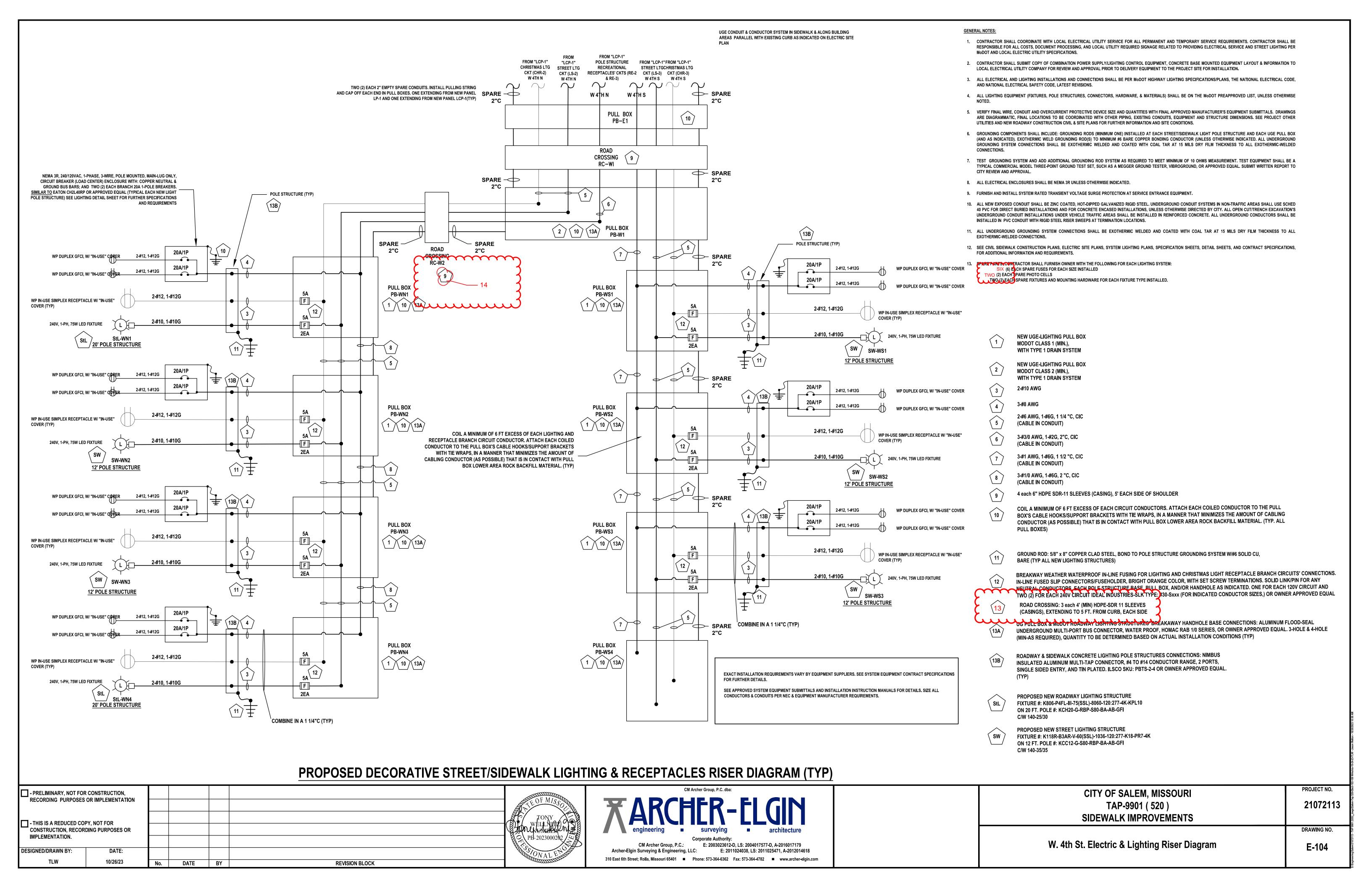
Meeting Date: February 1, 2024 1:30 p.m. Project Manager: Jordan Kellerman

Sheet 1 OF 1

None /Coreneny	Telephone/Fax/	Address
Name/Company	E-mail	Address
Jordan Kellerman	573-364-6362 - Phone 573-364-4782 — Fax	210 Feet 6th Gr
Archer-Elgin Engineering, Surveying and Architecture	618-713-0348 – Cell	310 East 6 th Street
Architecture	jkellerman@cmarcher.com	Rolla, MO 65401
Richard Martin	573 578 4620	POBOX 1013
Martin Electric	Meletric 920 Gm	al Rolla Mo
DEMNIS SAURGEON DOMMAGGT	573-364-7733 573-34-5066 SAURGEON 2996@GM	P.O.BO X 66 MA
BOB HOFFMEISTER	573-465-7830	2020 ROLLA MO
ALEXANDER CONST.	JAMMY @ alexander cous	
JOE CHASE	573-247-1594	MODNORUL IRON
INTERIM P.W. DIRECTOR	5+3-729-3918 5 Chase @ salemmo.	son Sacem, mo.
City Administrator		
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GENERAL NOTES:

- CONTRACTOR SHALL COORDINATE WITH LOCAL ELECTRICAL UTILITY SERVICE FOR ALL PERMANENT AND TEMPORARY SERVICE REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS, DOCUMENT PROCESSING, AND LOCAL UTILITY REQUIRED SIGNAGE RELATED TO PROVIDING ELECTRICAL SERVICE AND ROADWAY LIGHTING PER MoDOT AND LOCAL ELECTRIC UTILITY
- CONTRACTOR SHALL SUBMIT COPY OF ALL ELECTRICAL DISTRIBUTION, LIGHTING CONTROLS, PROCESS EQUIPMENT, AND LIGHTING EQUIPMENT PROPOSED LAYOUT & INFORMATION TO LOCAL ELECTRICAL UTILITY COMPANY FOR REVIEW AND APPROVAL PRIOR TO DELIVERY EQUIPMENT TO THE PROJECT SITE FOR INSTALLATION.
- 3. FURNISH AND INSTALL SYSTEM RATED TRANSIENT VOLTAGE SURGE PROTECTION AT SERVICE ENTRANCE EQUIPMENT.
- ALL ELECTRICAL AND LIGHTING INSTALLATIONS AND CONNECTIONS SHALL BE PER MoDOT HIGHWAY LIGHTING SPECIFICATIONS/PLANS, THE NATIONAL ELECTRICAL CODE, AND NATIONAL ELECTRICAL SAFETY CODE, LATEST REVISIONS.
- 5. ALL LIGHTING EQUIPMENT (FIXTURES AND POLE STRUCTURES) SHALL BE ON THE MoDOT PREAPPROVED LIST, UNLESS OTHERWISE
- 6. GROUNDING COMPONENTS SHALL INCLUDE: GROUNDING RODS (MINIMUM ONE) INSTALLED AT ELECTRICAL SERVICE ENTRANCE EQUIPMENT. UNDERGROUND ELECTRIC PULL BOXES. AND STREET LIGHT POLE STRUCTURES (AND AS INDICATED): EXOTHERMIC WELD GROUNDING ROD(S) TO MINIMUM #2 BARE COPPER BONDING CONDUCTOR AT ELECTRIC SERVICE ENTRANCE & EQUIPMENT LOCATIONS (UNLESS OTHERWISE INDICATED) AND #6 BARE COPPER BONDING CONDUCTORS AT EACH UGE PULL BOX AND STREET LIGHT POLE STRUCTURES: BONDING CONDUCTOR INSTALLED IN RIGID GALVANIZED STEEL CONDUIT AND CONNECTED TO SERVICE ENTRANCE GROUNDING ELECTRODE CONDUCTOR, ENCLOSURES, ELECTRICAL EQUIPMENT RACK, AND OTHERS REQUIRED PER NEC. ALL UNDERGROUND GROUNDING SYSTEM CONNECTIONS SHALL BE EXOTHERMIC WELDED AND COATED WITH COAL TAR AT 15 MILS DRY FILM THICKNESS TO ALL EXOTHERMIC-WELDED CONNECTIONS.
- TEST GROUNDING SYSTEM AND ADD ADDITIONAL GROUNDING ROD SYSTEM AS REQUIRED TO MEET MINIMUM OF 10 OHMS MEASUREMENT. TEST EQUIPMENT SHALL BE A TYPICAL COMMERCIAL MODEL THREE-POINT GROUND TEST SET, SUCH AS A MEGGER GROUND TESTER, VIBROGROUND, OR APPROVED EQUAL. SUBMIT WRITTEN REPORT TO CITY REVIEW AND APPROVAL.
- 8. ALL ELECTRICAL ENCLOSURES SHALL BE NEMA 3R UNLESS OTHERWISE INDICATED.
- ALL NEW EXPOSED CONDUIT SHALL BE ZINC COATED, HOT-DIPPED GALVANIZED RIGID STEEL. UNDERGROUND CONDUIT SYSTEMS IN NON-TRAFFIC AREAS SHALL USE SCHED 40 PVC FOR DIRECT BURIED INSTALLATIONS AND FOR CONCRETE ENCASED INSTALLATIONS, UNLESS OTHERWISE DIRECTED BY CITY, VEHICLE TRAFFIC AREA (ROADWAYS, DRIVE ENTRANCES, ETC.) DIRECTIONAL BORES AND OPEN CUT EXCAVATIONS SHALL USE -HDPE SDR 13.5 CONTINUOUS DUCT. ALL OPEN CUT/TRENCH EXCAVATION'S UNDERGROUND CONDUIT INSTALLATIONS UNDER VEHICLE TRAFFIC AREAS SHALL BE INSTALLED IN REINFORCED CONCRETE. ALL UNDERGROUND CONDUCTORS SHALL BE INSTALLED IN PVC CONDUIT WITH RIGID STEEL RISER SWEEPS AT TERMINATION LOCATIONS.
- 10. SEE CIVIL SIDEWALK CONSTRUCTION PLANS, ELECTRIC SITE PLANS, SYSTEM LIGHTING PLANS, SPECIFICATION SHEETS, DETAIL SHEETS, AND CONTRACT SPECIFICATIONS, FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

- INSTALLATIONS SHALL BE PER NEC, NESC, MoDOT MISSOURI STANDARD SPECIFICATIONS AND DRAWINGS FOR HIGHWAY CONSTRUCTION (SECTION 901, HIGHWAY LIGHTING) EQUIPMENT MANUFACTURER'S INSTRUCTIONS/REQUIREMENTS, & CITY SPECIFICATIONS/STAFF DIRECTION. ALL LIGHTING EQUIPMENT (FIXTURES AND POLE STRUCTURES) SHALL BE ON THE Modot pre-approved list, unless
- 2. CONTRACTOR SHALL SUBMIT MANUFACTURER'S SPECIFICATIONS, SHOP DRAWINGS, AND MATERIAL INFORMATION TO THE OWNER AND ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PROCUREMENT, TO INCLUDE, BUT NOT LIMITED TO:
 - CONCRETE MIX DESIGN
 - BACKFILL MATERIAL
 - SIMPLEX WP "IN-USE" RECEPTACLE DUPLEX WP GFCI RECEPTACLES
 - NEMA 3R 2-CIRCUIT BREAKER ENCLOSURES & 1P/20A BREAKERS
 - STRUCTURE/FIXTURE CONDUCTORS • IN-LINE WEATHER PROOF FUSED TERMINATION DEVICES
 - GEL TYPE SEALED CONNECTORS
 - CONDUIT MATERIAL CONDUCTORS
 - ELECTRIC SERVICE ENTRANCE, DISTRIBUTION, AND LOAD CENTER ENCLOSURES
 - LIGHTING CIRCUIT OUTDOOR, RACK MOUNTED, CONTACTOR/CONTROLLER PULL-BOXES
 - UGE WARNING TAPE
- ALL RELATED HARDWARE & MATERIALS
- 3. INSTALL GROUND ROD & CONNECT #6 BARE CU GROUNDING CONDUCTOR BY EXOTHERMIC WELDED CONNECTIONS, AT EACH STRUCTURE OF EACH CIRCUIT, UNLESS OTHERWISE INDICATED. SEE SYSTEM 1-LINE DIAGRAMS FOR FURTHER INFORMATION.
- 4. POLE SHALL BE MAINTAINED PLUMB THROUGHOUT INSTALLATION.
- 5. FURNISH & INSTALL WEATHERPROOF BREAKAWAY TYPE IN-LINE FUSING (INCLUDING SOLID PIN FOR NEUTRAL) CONNECTORS/TERMINATIONS AND WEATHERPROOF GEL TYPE SEALED CONDUCTOR CONNECTIONS AT EACH POLE STRUCTURE'S HANDHOLE TERMINATION LOCATION.
- 6. INSTALL UNDERGROUND CONDUIT SYSTEM A MINIMUM OF 30 INCHES (MIN) FROM TOP OF CONDUIT TO FINISHED GRADE/SURFACE ALONG
- 7. INSTALL CONDUIT PERMA-GUM TYPE DUCT SEAL AT ALL CONDUIT OPENINGS AT EQUIPMENT LOCATIONS.
- 8. INSTALL, CONNECT, TEST, AIM, AND PLACE IN SERVICE ALL ROADWAY/STREET LIGHTING STRUCTURES & ASSEMBLIES PER EQUIPMENT MANUFACTURER'S INSTRUCTIONS AND OWNER REQUIREMENTS

ALL CONSTRUCTION SHALL BE PER: NEC, NESC, REA/RUS STANDARDS; MoDOT 900 ROADWAY LIGHTING STANDARDS & REQUIREMENTS: AND CITY SPECIFICATIONS & DIRECTION.

FOR ANY OWNER SUPPLIED MATERIALS, CONTRACTOR SHALL SCHEDULE MATERIAL PICK UP AND CIRCUIT INSTALLATIONS WITH CITY ELECT DEPARTMENT A MINIMUM OF 30 DAYS IN ADVANCE OF WORK TO BE EXECUTED.

ALL CONSTRUCTION SHALL BE INSPECTED AND APPROVED BY CITY ELECT DEPARTMENT WITH CONTRACTOR REPRESENTATIVE.

- MATERIALS, EQUIPMENT, DESIGN, AND INSTALLATIONS SHALL BE PER MODOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, ENGINEERING POLICY GUIDE, AND RELATED MANUALS AND DRAWINGS TO INCLUDE, BUT NOT LIMITED TO:
- A. DIVISIONS 900 TRAFFIC CONTROL AND 1000 MATERIALS.
- B. SECTION 901 LIGHTING TO INCLUDE SPECIFIC ATTENTION TO SECTION 901.13 LIGHTING PROPOSED BY OTHER POLITICAL SUBDIVISIONS ON STATE
- C. HIGHWAY LIGHTING DRAWINGS:

CABLE, CONDUIT, AND TRENCHING

CONCRETE AND PREFORMED PULL BOXES, SHEETS 1 THROUGH 3

UTILITY PROCEDURES POLICY, STANDARDS AND REGULATIONS FOR REGULATING THE LOCATION, CONSTRUCTION, MAINTENANCE, REMOVAL AND RELOCATION OF UTILITY FACILITIES ON THE RIGHT OF WAY OF ROADWAYS LOCATED ON THE STATE HIGHWAY SYSTEM.

- 2. UGE SECONDARY ELECTRIC SERVICES-CONDUIT SYSTEM:
 - RIGID PLASTIC CONDUIT, SCHEDULE 40 PVC (POLYVINYL CHLORIDE). NEMA STANDARDS PUB NO. TC2, TYPE 3. CONFORM TO UL 651. HEAVY WALL, UL LISTED, SUNLIGHT RESISTANT, AND RATED FOR USE WITH 90 DEGREE CELSIUS CONDUCTORS.
- B. INSTALL 24 INCH (MIN) RADIUS, 90 DEGREE SCHED 40 PVC ELBOWS AT ALL RISER POLES, PULL BOXES, AND EQUIPMENT ENTRANCE LOCATIONS.
- C. CONDUCTORS: 600V RATED, THHN/THWN COPPER, RATED FOR 90 DEG C (SIZED AS INDICATED).
- VEHICLE TRAFFIC AREAS (ROADWAYS, DRIVE ENTRANCES, ETC.) OPEN CUT EXCAVATIONS SHALL BE SCHEDULE 40 PVC, SIZED AS INDICATED
- 3. UNDERGROUND BURIED DETECTABLE MARKING TAPE: RED, 6 INCHES WIDE, MARKING TAPE, CONTINUOUS-PRINTED SOLID ALUMINUM FOIL CORE TAPE, INTENDED FOR WARNING BURIED ELECTRIC SERVICE DUCTBANKS AND CONDUITS.
- 4. ENGRAVED PLASTIC-LAMINATE NAMEPLATES/SIGNS-FOR ALL LIGHTING/RECEPTACLE POWER SUPPLY/BRANCH CIRCUIT CONTROLLER ENCLOSURES.
- A. PROVIDE ENGRAVING STOCK MELAMINE PLASTIC LAMINATE, COMPLYING WITH FS L-P-387 AND RATED FOR OUTDOOR INSTALLATIONS
- B. ENGRAVED WITH ENGRAVER'S STANDARD LETTER STYLE OF SIZES AND WORDING INDICATED,
- WHITE FACE AND BLACK CORE PLIES (LETTER COLOR), PUNCHED FOR MECHANICAL FASTENING EXCEPT WHERE ADHESIVE MOUNTING IS NECESSARY BECAUSE OF SUBSTRATE.
- D. THICKNESS: 1/16", MINIMUM

E.FASTENERS: SELF-TAPPING STAINLESS STEEL SCREWS, EXCEPT CONTACT-TYPE PERMANENT ADHESIVE

F.WHERE SCREWS CANNOT OR SHOULD NOT PENETRATE SUBSTRATE.

- G. LABELS SHALL BE PER LATEST NEC REVISION AND INCLUDE EQUIPMENT NOMENCLATURE AND RATING VOLTAGE AND PHASING, FOR EXAMPLE:
- "FOURTH STREET LIGHTING & RECEPTACLE BRANCH CIRCUITS" "240VAC, 20A, STREET/SIDEWALK LIGHTING CIRCUITS"
- "120VAC, 20A, POLE MOUNTED CHRISTMAS LIGHTING RECEPTACLE CIRCUITS" • "240VAC, 20A, POLE MOUNTED LOCAL PANELS"
- "120VAC, 20A, POLE MOUNTED RECREATIONAL RECEPTACLE CIRCUIT"
- "CHR-1. CHR-2, CHR-3" "SL-1, SL-2, SL-3" "RE-1, RE-2, RE-3"
- 5. WEATHERPROOF CONNECTORS: ALUMINUM FLOOD-SEAL UNDERGROUND MULTI-PORT BUS CONNECTOR, WATER PROOF, HOMAC RAB 1/0 SERIES, OR OWNER APPROVED EQUAL. 3-HOLE & 4-HOLE (MIN-AS REQUIRED), QUANTITY TO BE DETERMINED BASED ON ACTUAL INSTALLATION CONDITIONS (TYP).
- 6. IN-LINE LIGHTING & RECEPTACLE FUSING:
- A. SINGLE-POLE BREAKAWAY IN-LINE FUSE HOLDER FOR KTK TYPE MIDGET FUSING.
- B. FUSES SHALL BE SIZED AND PROVIDED AS INDICATED & WITH A MINIMUM OF 12 SPARES FOR EACH SIZE INSTALLED.
- C. 600V, UP TO 30A RATINGS
- D. WATER RESISTANT BOOTS

E.LINESIDE: COPPER SETSCREW #12AWG TO #3AWG, 2 WIRES PER TERMINAL

F.LOADSIDE: COPPER SETSCREW #12AWG TO #3AWG, 1 WIRE PER TERMINAL

G. SOLID LINK/PIN FOR NEUTRAL CONDUCTORS.

- 7. PULL BOXES/HANDHOLES (TYP)
- PULL BOXES SHALL BE TIER 15, 20,000 LB (MIN) RATED PREFORMED CLASS 1 POLYMER CONCRETE OR STANDARD CONCRETE PULL BOXES (IN LIEU OF PREFORMED PULL BOXES AT CONTRACTORS OPTION) AS SPECIFIED AND INDICATED ON MoDOT DRAWINGS 902.20G (SHEET 1 of 3) AND
- B. CONCRETE PULL BOXES SHALL BE AS INDICATED ON MoDOT DRAWING 902.02G (SHEET 1 of 3): STANDARD CONCRETE PULL BOX WITH TYPE 1 DRAIN TYPE IN UPPER ELEVATION AREAS AND TYPE II DRAIN TYPE IN LOWER ELEVATION AREAS: CAST IRON 29" x 29" FRAME SIZE. 22 %" x 22" OPENING SIZE, & 4 4" FRAME HEIGHT; CAST IRON COVER, 22 8" x 22 8", 3" COVER, & 4-BOLTS, AND MOLDED INSERT CABLE HOOKS (TYP 4 PLACES). COVERS SHALL BE EMBOSSED AS "CITY LIGHTING".
- PREFORMED PULL BOXES SHALL BE AS INDICATED ON MoDOT DRAWING 902.02g (SHEET 2 of 3): CLASS 2, 24" x 36" x 24" (MIN); TYPE 1 DRAIN TYPE IN UPPER ELEVATION AREAS AND TYPE II DRAIN TYPE IN LOWER ELEVATION AREAS; COVER WITH SKID RESISTANT SURFACE AND 2 BOLTS (MIN); AND MOLDED INSERT CABLE HOOKS (TYP 4 PLACES). COVERS SHALL BE EMBOSSED AS "CITY ELECTRIC & LIGHTING" FOR LIGHTING STRUCTURE SYSTEM AND "CITY SIDEWALK SNOW MELT" FOR SIDEWALK SNOW MELT SYSTEM.
- TYPE II DRAIN OUTLET LOCATIONS SHALL BE OF THE TYPE "A" OR "B" CONFIGURATION, AS INDICATED ON MoDOT DRAWING 902.20g (1 OF 3), REQUIRED AT SITE SPECIFICATION CONDITIONS.
- PULL BOXES SHALL BE INSTALLED SUCH THAT MAXIMUM PULL BOX WIDTH PERPENDICULAR TO THE RIGHT OF WAY LINE WITHIN THE UTILITY CORRIDOR IS 30 INCHES AND LONGEST SIDE SHALL BE PLACED PARALLEL WITH TRAFFIC WAY. LOCATE PULL BOXES IN NON TRAFFIC AREAS,
- F.EXCAVATE OVERDIG A MINIMUM OF 4" BEYOND OUTSIDE WALLS OF PULL BOXES AND INSTALL PULL BOXES AT STANDARD DEPTHS ON COMPACTED/TAMPED 24" (MIN) BASE OF 1" CLEAN AGGREGATE.
- G. SET PULL BOX SUCH THAT TOP OF OPENING IS 1" ABOVE COMPACTED BACKFILL AND FINISHED GRADE.
- H. FILL OVERDIG WITH CRUSHED ROCK LEVELING THE ROCK AND TAMPING FIRM.
- I. REPLACE AND STABILIZE THE EARTH AROUND THE PULL BOX COMPACTING/TAMPING TO REQUIRED COMPACTION.
- 8. SOD OR RESURFACE/RESTORE AREA FINISH GRADE AND/OR ROAD SURFACE AS NECESSARY, PER CONTRACT SPECIFICATIONS. PROTECT FROM AREA

ADDITIONAL ELECTRIC SERVICE & LIGHTING EQUIPMENT & MATERIALS SPECIFICATIONS (SEE DIVISION 16000 FOR FURTHER SPECIFICATIONS & REQUIREMENTS):

- UGE-LIGHTING & RECEPTACLE BRANCH CIRCUITS' CABLES & CONDUCT (CABLES IN CONDUCT-REFERRED TO AS INDUCT). CIRCUITS IN CONDUIT SIZES 2 INCH AND SMALLER SHALL BE IN PRE INSTALLED CABLES WITH PERMANENT CABLE LUBRICATION, IN HDPE SCHED 40 CONDUIT USING 90 DEG C RATED COPPER THHN/THWN CONDUCTORS AND BARE COPPER GROUNDING CONDUCTOR.
- CONTINUOUS CONDUCT NOMINAL SIZE: (AS INDICATED).

CONDUIT COLOR: RED. HIGH-DENSITY POLYETHYLENE (HDPE) SCHEDULE 40 MANUFACTURED PER ASTM F1260 FROM MATERIAL IN ACCORDANCE WITH

CONDUCTORS: 600V RATED, THHN/THWN COPPER, RATED FOR 90 DEG C (SIZED AS INDICATED).

CIRCUIT CONDUCTORS INSTALLED IN CONDUIT SIZES LARGER THAN 1-1/2 INCH SHALL BE INSTALLED IN SCHEDULE 40 PVC EXCEPT FOR VEHICLE TRAFFIC

- 2. PANEL "LCP-1" LIGHTING & RECEPTACLE DISTRIBUTION PANEL AND CONTROL SYSTEM SPECIFICATIONS:
- A. MILBANK TYPE CP3BM0024122SOPB (OR APPROVED EQUAL)
- B. 240/120 VAC, 1-PH, 3-WIRE, 400A BUS WITH 300A MAIN CIRCUIT BREAKER, 22kA SYM. RATED
- C. NEMA 3R, 24"W X 17"D STAINLESS STEEL OR ALUMINUM ENCLOSURE, WITH 24"W X 17"D (MIN) PEDESTAL MOUNTING BASE, ANCHORED TO STEEL REINFORCED CONCRETE PEDESTAL.
- D. STREET LEVEL POLE MOUNTED RECREATIONAL RECEPTACLE CIRCUITS SHALL BE UNSWITCHED (SEPARATE FROM LIGHTING CONTROLS).
- E. LIGHTING CONTROL SYSTEM SHALL BE OPERATOR SELECTED MANUAL OR PHOTO CELL CONTROL SYSTEM AND SHALL INCLUDE, BUT NOT LIMITED
- PANEL MOUNTED INTERIOR LIGHTING CONTROL SECTION;
- HINGED DOOR (COVER) HOA (HAND-OFF-AUTO) SELECTOR SWITCH;
- CONTROL CIRCUITRY FUSES AND RELAYS
- 2-WIRE CONTROL SYSTEM WITH "PHOTO CELL" CONTROL WHEN SELECTOR SWITCH IS IN THE "AUTO" POSITION;
- LIGHTNING ARRESTOR; UL LISTED:
- WIRING DIAGRAMS
- G. LIGHTING CONTROL SYSTEM SHALL INCLUDE SIX (6) SPARE CONTROL CIRCUIT FUSES AND THREE (3) SPARE PHOTO CELLS.
- H. TRANSIENT VOLTAGE SURGE (SPD) PROTECTION
- CONTRACTOR SHALL SUBMIT PROPOSED LIGHTING CONTROL SYSTEM COMPONENTS & WIRING DIAGRAM PACKAGE TO ENGINEER FOR REVIEW AND

OWNER-LOCAL UTILITY RESPONSIBILITIES:

FURNISH 12' AND 20' ROADWAY/STREET LIGHTING FIXTURES, ARMS, STRUCTURES, AND RELATED HARDWARE & ASSEMBLIES.

3. RELOCATE AND/OR DEMO ALL EXISTING OVERHEAD SECONDARY CONDUCTORS

FURNISH AND INSTALL ELECTRIC UTILITY SECONDARY ELECTRIC SERVICE

CONNECTING EXISTING LIGHTING POLES. 4. REMOVAL OF SIGNS, BANNERS/BANNER ARMS, LIGHT FIXTURES, AND FIXTURE ELECTRIC SERVICE, TRANSFORMER, AND METERING

FURNISH AND INSTALL PRIMARY

CONTRACTOR RESPONSIBILITIES:

FURNISH ALL LABOR, EQUIPMENT, AND MATERIAL.

ARMS FROM EXISTING LIGHT POLES.

- 2. TRENCH EXCAVATE, BACKFILL, COMPACT, AND SITE & ROADWAY RESTORATION.
- FURNISH AND INSTALL:
- A. ALL ELECTRIC UGE-SECONDARY SERVICE ENTRANCE CONDUIT SYSTEMS, CONDUCTORS, EQUIPMENT RACKS, SERVICE ENTRANCE & CONTROL & DISTRIBUTION EQUIPMENT, FUSING, CONNECTORS, LUGS, MISC. HARDWARE, AND GROUNDING
- B. ALL STREET/SIDEWALK LIGHTING STRUCTURE BRANCH CIRCUIT COMPONENTS TO INCLUDE. BUT NOT LIMITED TO: CONDUITS (INCLUDING 24 IN SWEEPS): CONDUCTORS: FUSING: CONNECTORS: LUGS: POLE MOUNTED ELECTRIC EQUIPMENT (AS INDICATED): MISC HARDWARE: BEDDING MATERIAL: WARNING TAPE: SPACERS: SUPPORTS: CONCRETE: REINFORCEMENT: DUCTBANK MATERIALS: AND PULL BOXES FOR A COMPLETE AND OPERATIONAL SYSTEM.
- C. LIGHTING STRUCTURE FUSING, CONNECTORS, TO INCLUDE TERMINATIONS, GROUNDING, START UP/TESTING, AND FIXTURE AIMING.
- 4. CONSTRUCT CONCRETE ENCASED ROAD CROSSINGS & REPAIR ROADWAY/DRIVE
- 5. LOAD, TRANSPORT, AND OFF LOAD ANY OWNER FURNISHED EQUIPMENT AND/OR MATERIALS.
- REMOVE/DEMO EXISTING POLES (AFTER ALL EQUIPMENT/HARDWARE HAS BEEN REMOVED BY OWNER) AND COORDINATE WITH OWNER FOR STORAGE/DISPOSAL
- DISCONNECT AND REMOVE/DEMO EXISTING SIDEWALK HEATING EQUIPMENT AT LOCATIONS INDICATED ON DRAWINGS AND INSTALL/REPLACE WITH NEW SIDEWALK HEATING EQUIPMENT, CONTRACTOR TO SUBMIT PROPOSED SIDEWALK HEATING EQUIPMENT DESIGN, CIRCUIT SIZES, CONNECTION REQUIREMENTS, AND WIRING DIAGRAMS TO ENGINEER & OWNER FOR REVIEW AND APPROVAL.

INDICATED LIGHTING SYSTEMS ARE DESIGNED BY OTHERS INCLUDING BUT NOT LIMITED TO OWNER SELECTED LIGHTING EQUIPMENT MTERIALS AND HARDWARE.

- PRELIMINARY, NOT FOR CONSTRUCTION. RECORDING PURPOSES OR IMPLEMENTATION - THIS IS A REDUCED COPY, NOT FOR CONSTRUCTION, RECORDING PURPOSES OR IMPLEMENTATION. DESIGNED/DRAWN BY: DATE: TLW/RHP 10/26/23 DATE BY REVISION BLOCK



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PROJECT NO. CITY OF SALEM, MISSOURI TAP-9901 (520) 21072113 SIDEWALK IMPROVEMENTS DRAWING NO. Electric Specifications E-106