

## ADDENDUM NO. 1

TO: PLANS AND SPECIFICATIONS FOR STATE OF MISSOURI

Construct Electric Vehicle Charging Stations  
Missouri State Fairgrounds  
Sedalia, Missouri  
PROJECT NO. F2305-01

Bid Opening Date: 1:30 PM, Thursday, February 29, 2024 (UNCHANGED)

**Revised Bid Form is attached. Bidders must use the Bid Form marked REVISED PER ADDENDUM #1 to bid this project.**

Bidders are hereby informed that the Construction Plans and/or Specifications are modified as follows:

### **SPECIFICATION CHANGES:**

1. Section 004113 – Bid Form

- a. The Alternate No. 1 description was revised. **Bidders must use the attached Bid Form marked REVISED PER ADDENDUM #1 to bid this project.**

2. Section 012300 – Alternates

- a. REVISE Section 3.1 Schedule of Alternates – Paragraph A as follows:

- A. Alternate No. 1: Furnish and install (3) 15-amp high-voltage fuses at the overhead connection. Furnish and install a 225KVA transformer instead of a 112.5KVA transformer and install a 2-inch conduit that stubs up to a future EV charging station with a cap as shown on drawings.

3. Section 262729 – Electric Vehicle Charging Station

- a. REVISE Section 2.1 Electric Vehicle Charging Station by adding Paragraph G Warranty as follows:

G. Warranty:

1. Provide a five (5) year factory warranty for the new EV charging station.

### **DRAWING CHANGES:**

1. Sheet E-100

- a. The following modifications were made to Sheet E-100. See attached revised sheet.

- REVISE Upsized conduit for primary cables down the existing overhead pole from 3" conduit to 4" conduit.
- REVISE Changed connectors with EV charging station from (1) CHAdEMO connector to (1) N.A.C.S. connector.

- ADD Added 'EV CHARGING ONLY' stencil at two parking spaces with green lettering.
2. Sheet E-400
    - a. The following modification was made to Sheet E-400. See attached revised sheet.
      - REVISE Detail 2 Roadway Underground Crossing Detail to match conduit underground with Conduit Installation Schedule on Sheet E-000.
  3. Sheet E-600
    - a. The following modifications were made to Sheet E-600. See attached revised sheet.
      - REVISE Riser Diagrams for Base Bid and Alternate Bid to upsize the conduit for the primary cables down the existing overhead pole from 3" conduit to 4" conduit.
      - REVISE EV Chargers Information Description to provide (1) CCS 1 Combo connector and (1) N.A.C.S. connector. Information was added in case (1) N.A.C.S. connector is not available to provide (2) CCS 1 Combo connectors with the provisions to update one of these cables to a N.A.C.S. connector at a later date.

#### **GENERAL COMMENTS:**

1. The Pre-Bid Meeting was conducted at the Administrative Offices located at 2503 W 16<sup>th</sup> St, Sedalia, MO 65301 on February 15, 2024 at 10:00 AM followed by a tour of the existing area for bidders to see the area and ask any additional questions. The Pre-Bid Meeting sign-in sheet is attached.
2. Please contact Michael Schrader, Engineering Project Manager, at (573) 536-7105, Michael.Schrader@oa.mo.gov for questions about bidding procedures, MBE/WBE/SDVE Goals, and other submittal requirements.
3. The deadline for submission of technical questions to Zach Brachtenbach was 5:00 PM Wednesday, February 21, 2024.
4. Changes to, or clarification of, the bid documents are only made as issued in the addenda.
5. All correspondence with respect to this project must include the State of Missouri project number as indicated above (F2305-01).
6. Current Planholders list is available online at: [F2305-01 Construct Electric Vehicle Charging Stations - Missouri State Fairgrounds :: Plan Holders :: State of Missouri Office of Administration \(oafmdcplanroom.com\)](https://www.oafmdcplanroom.com)
7. Prospective Bidders contact American Document Solutions, 1400 Forum Blvd Suite 7A, Columbia MO 65203, (573) 446-7768 (adsplanroom.net) to get plans and specifications.

#### **ATTACHMENTS:**

1. Revised Section 004113 – Bid Form
2. Revised Drawings E-100, E-400, and E-600
3. Pre-Bid Meeting Sign-in Sheet

**February 23, 2024**

**END ADDENDUM NO. 1**

## SECTION 004113 - BID FORM

## REVISED PER ADDENDUM #1

### 1.0 BID

A. From:

\_\_\_\_\_  
(Bidder's Name)

herein after called the "**Bidder**".

B. To:

Director, Division of Facilities Management, Design and Construction  
Room 730, Harry S Truman State Office Building  
301 West High Street  
Jefferson City, Missouri 65101

herein after called the "**Owner**".

C. For:

Construct Electric Vehicle Charging Stations  
Missouri State Fairgrounds  
Sedalia, Missouri

D. Project Number:

F2305-01

hereinafter called the "**Work**".

E. Documents:

The undersigned, having examined and being familiar with the local conditions affecting the work and with the complete set of contract documents, including the Drawings, the Invitation For Bid, Instructions To Bidders, Statement of Bidders Qualifications, General Conditions, Supplement to General Conditions, and the technical specifications, including: addenda number \_\_\_\_\_ through \_\_\_\_\_ hereby proposes to perform the Work for the following:

F. Bid Amount:

\_\_\_\_\_  
Dollars (\$ \_\_\_\_\_)

G. Allowances:

See Section 012100 for Bad Weather Day allowance (10 days)

H. Alternates:

Alternate No. 1: Furnish and install (3) 15-amp high-voltage fuses at the overhead connection. Furnish and install a 225KVA transformer instead of a 112.5KVA transformer and install a 2-inch conduit that stubs up to a future EV charging station with a cap as shown on drawings.

\_\_\_\_\_  
Dollars (\$ \_\_\_\_\_)

### 2.0 MBE/WBE/SDVE PERCENTAGE OF PARTICIPATION PROJECT GOALS

A. This project's specific goals are: **MBE 10%**, **WBE 10%**, and **SDVE 3%**. NOTE: Only MBE/WBE firms certified by the State of Missouri Office of Equal Opportunity, and SDVE(s) meeting the requirements of Section 34.074, RSMo, and 1 CSR 30-5.010, as of the date of bid opening can be used to satisfy the MBE/WBE/SDVE participation goals for this project.

### 3.0 BID BOND

A. Accompanying the bid is: \_\_\_ 5% Bid Bond or \_\_\_ Cashier's Check/Bank Draft for 5% of base bid that is payable without condition to the Division of Facilities Management, Design and Construction, State of Missouri, as per Article 5 of "Instructions To Bidders".

#### 4.0 CONTRACT COMPLETION TIME AND LIQUIDATED DAMAGES

- A. The Bidder agrees to complete the work within **250 working days** from the date the Notice of Intent to Award is issued as modified by additional days added by the Owner's acceptance of alternates, if applicable. This includes ten (10) working days for document mailing and processing. The Bidder further agrees to pay to, or allow the State as **liquidated damages the sum of \$500** for each working day thereafter that the entire work is not substantially complete.

#### 5.0 ATTACHMENTS TO BID

004336	Proposed Subcontractors
004337	MBE/WBE/SDVE Compliance Form
004338	MBE/WBE/SDVE Joint Venture Form
004339	MBE/WBE/SDVE Waiver Form
004340	SDVE Business Form
004541	Affidavit of Work Authorization
004545	Anti-Discrimination Against Israel Act Certification form

#### 6.0 BIDDER'S CERTIFICATIONS

By signing and submitting this bid form, the Bidder certifies as follows:

##### A. No Undisclosed Interests or Associations, Collusion, or Solicitation of Other Bidders

1. This bid is genuine and is not made in the interest of or on behalf of any undisclosed person, firm, or corporation, and is not submitted in conformity with any agreement or rules of any group, association or corporation.
2. The Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham proposal.
3. The Bidder has not solicited or induced any person, firm or corporation to refrain from submitting a bid.
4. The Bidder has not sought by collusion or otherwise to obtain any advantage over any other bidder or over the Owner.

##### B. Accuracy of Contract Documents

The Bidder has based this bid upon an official/complete set of contract documents, either obtained from the Owner or from a secondary source known to the Bidder to have provided a complete and accurate set of contract documents. If the Bidder received the contract documents from such a secondary source, any errors or omissions in the contract documents shall be interpreted and construed in favor of the Owner and against the Bidder. This bid is based upon the conditions within Article 1.2 of the General Conditions.

##### C. Non-Discrimination

The Bidder will not discriminate against any employee or applicant for employment because of race, creed, color or national origin in the performance of the Work.

##### D. Prevailing Wage

**MISSOURI PREVAILING WAGE LAW (Sections 290.210 to 290.340, RSMo):** The Contractor shall pay not less than the specified hourly rate of wages, as set out in the wage order attached to and made part of the specifications for work under this contract, to all workers performing work under the contract, in accordance with sections 290.210 to 290.340, RSMo. The Contractor shall forfeit a penalty to the Owner of one hundred dollars per day (or portion of a day) for each worker that is paid less than the specified rates for any work done under the contract by the Contractor or by any subcontractor, in accordance with section 290.250, RSMo.

**DAVIS-BACON ACT:** If this Project is financed in whole or in part from Federal funds (as indicated in the Instructions to Bidders or other bid or contract documents for this Project), then this contract shall be subject to all applicable federal labor statutes, rules and regulations, including provisions of the Davis-Bacon Act, 40 U.S.C. §3141 et seq., and the “Federal Labor Standards Provisions,” as further set forth in Section 007333 – Supplementary General Conditions for Federally Funded/Assisted Construction Projects, which is incorporated into the contract by reference. Where the Missouri Prevailing Wage Law and the Davis-Bacon Act require payment of different wages for work performed under this contract, the Contractor and all Subcontractors shall pay the greater of the wages required under either law, on a classification by classification basis.

**E. Transient Employers**

The Bidder will comply with the provisions of Sections 285.230-234, RSMo, regarding transient employers.

**F. Federal Work Authorization Program**

The Bidder has enrolled and is participating in, and will continue to participate in, a federal work authorization program in accordance with Sections 285.525 and 285.530, RSMo for the duration of any contract awarded because of this bid.

**G. Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA)**

1. If awarded contract for this project, the Bidder/Contractor shall only utilize personnel authorized to work in the United States in accordance with applicable federal, state and local laws. This includes, but is not limited to, the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) and INA Section 274A.
2. If found to be in violation of this requirement or any applicable laws, and if the State of Missouri has reasonable cause to believe that the Contractor has knowingly employed individuals who are not eligible to work in the United States, the state shall have the right to cancel the contract immediately without penalty or recourse and suspend or debar the contractor from doing business with the state.
3. The Contractor agrees to cooperate fully with any audit or investigation from federal, state or local law enforcement agencies.

**H. Anti-Discrimination Against Israel Act**

1. If the awarded Contractor meets the definition of a company as defined in section 34.600, RSMo, and has ten or more employees, the Contractor shall not engage in a boycott of goods or services from the State of Israel; from companies doing business in or with Israel or authorized by, licensed by, or organized under the laws of the State of Israel; or from persons or entities doing business in the State of Israel as defined in section 34.600, RSMo.
2. If, at any time during the life of the contract, Contractor meets the definition of a company as defined in section 34.600, RSMo, and the company’s employees increases to ten or more OR the contractor’s business status changes to become a company as defined in section 34.600, RSMo, and the company has ten or more employees, then the Contractor shall submit to the Division of Facilities Management, Design and Construction a completed Box C of the exhibit titled “Anti-Discrimination Against Israel Act Certification, and shall comply with the requirements of Box C.

**I. The Personal Privacy Protection Act**

1. If the Bidder provides any “personal information” as defined in §105.1500, RSMo concerning an entity exempt from federal income tax under Section 501(c) of the Internal Revenue Code of 1986, as amended, the Bidder understands and agrees that it is voluntarily choosing to seek a state contract and providing such information for that purpose. The state will treat such personal information in accord with §105.1500, RSMo.

**7.0 CONTACT INFORMATION (mandatory for all bidders)**

Sole Proprietorship/General Partnership  LLC  Limited Partnership  Corporation  Joint Venture

Business Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Federal ID Number: \_\_\_\_\_ or Social Security Number: \_\_\_\_\_

Missouri Business Charter Number: \_\_\_\_\_ (or provide the proper certificate from the Secretary of State)

Contact Name: \_\_\_\_\_ Contact email: \_\_\_\_\_

**8.0 SIGNATURES**

**FOR SOLE PROPRIETORSHIPS/GENERAL PARTNERSHIPS ONLY**

\_\_\_\_\_  
Sole Proprietor's Name (printed) Name each general partner: \_\_\_\_\_  
\_\_\_\_\_

Today's Date: \_\_\_\_\_  
\_\_\_\_\_

I, \_\_\_\_\_, being the sole proprietor/general partner of (name of business)  
\_\_\_\_\_ (and if the name of said business is other than my legal name, having filed a  
Registration of Fictitious Name with the Missouri Secretary of State in order to allow me to use such name in  
connection with my business, as provided by Section 417.200, RSMo, et seq.), do hereby submit this bid and agree to be  
bound unto the State of Missouri as herein provided (if a general partnership, all partners must sign below).

Signature: \_\_\_\_\_ Signature: \_\_\_\_\_

Signature: \_\_\_\_\_ Signature: \_\_\_\_\_

**FOR LIMITED LIABILITY COMPANIES ONLY**

\_\_\_\_\_ today's date \_\_\_\_\_ State(s) of organization: \_\_\_\_\_  
Manager's (or Managing Member's) Name (printed)

I, \_\_\_\_\_, being the Manager (or Managing Member) of (full legal name of limited  
liability company from Articles of Organization) \_\_\_\_\_, and being duly  
authorized to act as herein provided on behalf of said limited liability company, do hereby submit this bid on behalf of  
said limited liability company and agree that said limited liability company shall be bound unto the State of Missouri as  
herein provided.

Signature: \_\_\_\_\_

**FOR LIMITED PARTNERSHIPS/LIMITED LIABILITY PARTNERSHIPS/LIMITED LIABILITY LIMITED PARTNERSHIPS ONLY**

\_\_\_\_\_ today's date: \_\_\_\_\_ State(s) of organization: \_\_\_\_\_  
General/Managing Partner's Name (printed)

I, \_\_\_\_\_, being the General Partner/Managing Partner of (full legal name of limited partnership/limited liability partnership/limited liability limited partnership from partnership agreement or Certificate of Limited Partnership) \_\_\_\_\_, and being duly authorized to act as herein provided on behalf of said limited partnership/limited liability partnership/limited liability limited partnership, do hereby submit this bid on behalf of said limited partnership/limited liability partnership/limited liability limited partnership and agree that said limited partnership/limited liability partnership/limited liability limited partnership shall be bound unto the State of Missouri as herein provided.

Signature: \_\_\_\_\_

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**FOR CORPORATIONS ONLY**

\_\_\_\_\_ Secretary's Name (printed) \_\_\_\_\_ Today's date  
President's Name (printed)

State(s) of incorporation: \_\_\_\_\_

I, \_\_\_\_\_, being the (officer or title) \_\_\_\_\_ of (full legal name of corporation, from Articles of Incorporation) \_\_\_\_\_, and being duly authorized by the Board of Directors of said corporation to act as herein provided on behalf of said corporation, do hereby submit this bid on behalf of said corporation and agree that said corporation shall be bound unto the State of Missouri as herein provided.

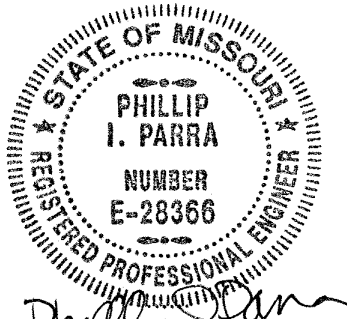
Signature: \_\_\_\_\_ Attested by: \_\_\_\_\_  
President Corporate Secretary

The President should sign as the bidder. If the signator is other than the corporate president, the bidder must provide satisfactory evidence that the signator has the legal authority to bind the corporation.

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**FOR ASSOCIATIONS/JOINT VENTURES**

If multiple business entities/individuals are bidding collectively as an association or joint venture, each business entity/individual bidding as part of the association or joint venture shall sign this bid in the above sections relevant to the form that such business entity or individual does business, and the bidder shall duplicate the necessary number of signature pages so that all members of the association or joint venture shall sign this bid. If a name is adopted for use by the association or joint venture, the association or joint venture shall file a Registration of Fictitious Name with the Missouri Secretary of State in order to use such name in connection with the association or joint venture, as provided by Section 417.200, RSMo, *et seq.*



PROFESSIONAL SEAL



MEP CONSULTANT

IMEG  
1600 BALTIMORE, SUITE 300  
KANSAS CITY, MO 64108  
P: 816-842-8437  
PROJECT # 23002446.00

OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT,  
DESIGN AND CONSTRUCTION

DEPARTMENT OF  
AGRICULTURE

MISSOURI STATE FAIR  
EV CHARGERS  
SEDALIA, MO

Missouri State Fairgrounds  
2503 W 16th Street  
Sedalia, MO 65301

PROJECT # F2305-01  
SITE # 1501  
ASSET # 3511501147

REVISION: BID DOCUMENTS  
DATE: 11/16/2023  
REVISION: ADDENDUM #1  
DATE: 02/22/2024  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_

DRAWN BY: ZMB  
CHECKED BY: PIP  
DESIGNED BY: ZMB

SHEET TITLE:

SITE PLAN -  
ELECTRICAL

SHEET NUMBER:

E-100

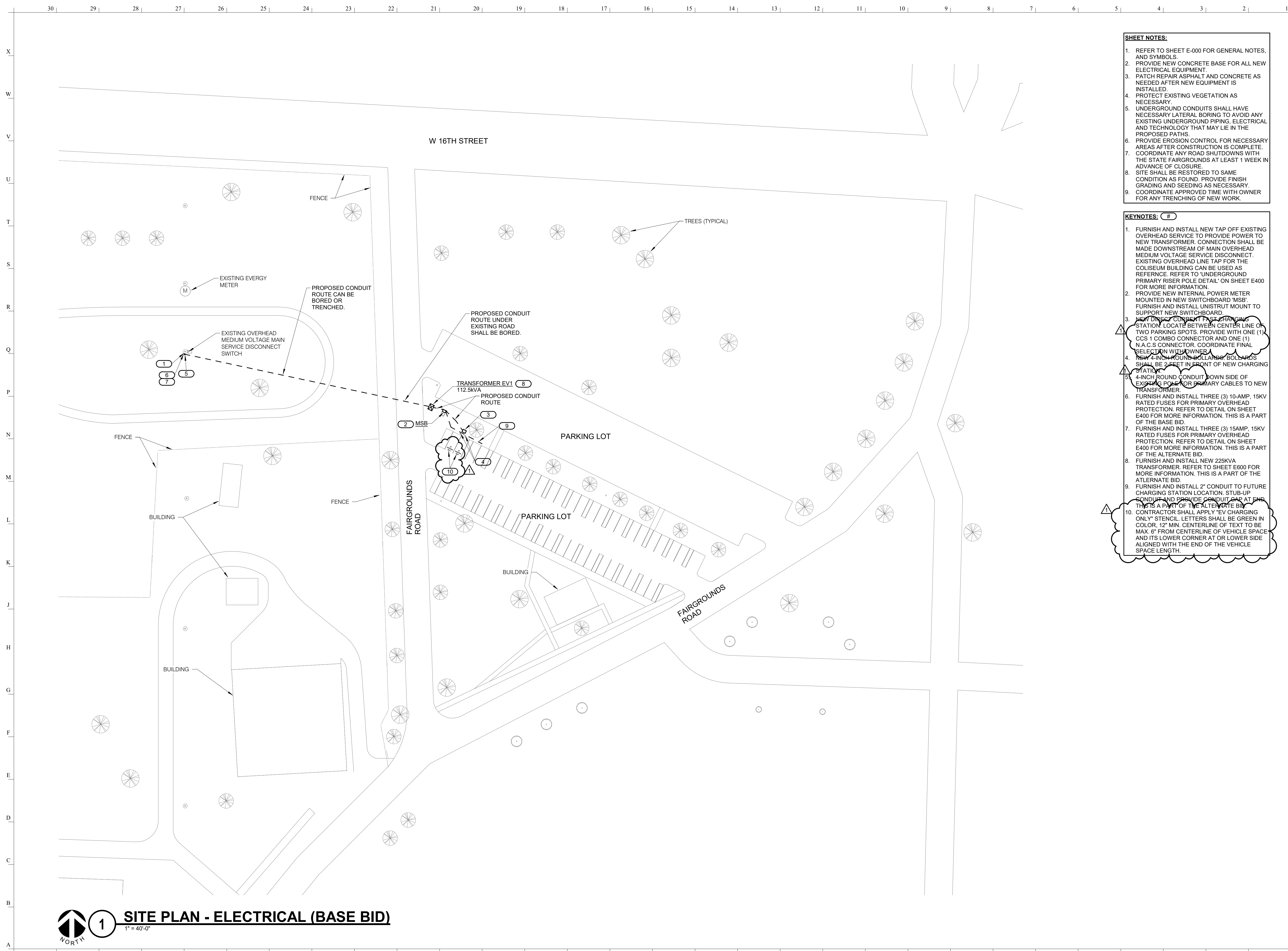
3 OF 6 SHEETS  
11/16/2023

**SHEET NOTES:**

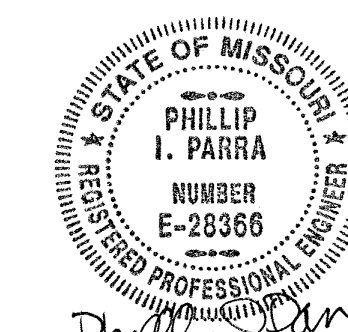
- REFER TO SHEET E-000 FOR GENERAL NOTES, AND SYMBOLS.
- PROVIDE NEW CONCRETE BASE FOR ALL NEW ELECTRICAL EQUIPMENT.
- PATCH REPAIR ASPHALT AND CONCRETE AS NEEDED AFTER NEW EQUIPMENT IS INSTALLED.
- PROTECT EXISTING VEGETATION AS NECESSARY.
- UNDERGROUND CONDUITS SHALL HAVE NECESSARY LATERAL BORING TO AVOID ANY EXISTING UNDERGROUND PIPING, ELECTRICAL AND TECHNOLOGY THAT MAY LIE IN THE PROPOSED PATHS.
- PROVIDE EROSION CONTROL FOR NECESSARY AREAS AFTER CONSTRUCTION IS COMPLETE.
- COORDINATE ANY ROAD SHUTDOWNS WITH THE STATE FAIRGROUNDS AT LEAST 1 WEEK IN ADVANCE OF CLOSURE.
- SITE SHALL BE RESTORED TO SAME CONDITION AS FOUND. PROVIDE FINISH GRADING AND SEEDING AS NECESSARY.
- COORDINATE APPROVED TIME WITH OWNER FOR ANY TRENCHING OF NEW WORK.

**KEYNOTES: (#)**

- FURNISH AND INSTALL NEW TAP OFF EXISTING OVERHEAD SERVICE TO PROVIDE POWER TO NEW TRANSFORMER. CONNECTION SHALL BE MADE DOWNSTREAM OF MAIN OVERHEAD MEDIUM VOLTAGE SERVICE DISCONNECT. EXISTING OVERHEAD LINE TAP FOR THE COLISEUM BUILDING CAN BE USED AS REFERENCE. REFER TO 'UNDERGROUND PRIMARY RISER POLE DETAIL' ON SHEET E400 FOR MORE INFORMATION.
- PROVIDE NEW INTERNAL POWER METER MOUNTED IN NEW SWITCHBOARD 'MSB'. FURNISH AND INSTALL UNISTRUT MOUNT TO SUPPORT NEW SWITCHBOARD.
- NEW DIRECT CONTACT FAST CHARGING STATION. LOCATE BETWEEN CENTER LINE OF TWO PARKING SPOTS. PROVIDE WITH ONE (1) CCS 1 COMBO CONNECTOR AND ONE (1) N.A.C.S CONNECTOR. COORDINATE FINAL SELECTION WITH OWNER.
- NEW 4-INCH ROUND BOLLARDS. BOLLARDS SHALL BE 2 FEET IN FRONT OF NEW CHARGING STATION.
- 4-INCH ROUND CONDUIT DOWN SIDE OF EXISTING POLE FOR PRIMARY CABLES TO NEW TRANSFORMER.
- FURNISH AND INSTALL THREE (3) 10-AMP, 15KV RATED FUSES FOR PRIMARY OVERHEAD PROTECTION. REFER TO DETAIL ON SHEET E400 FOR MORE INFORMATION. THIS IS A PART OF THE BASE BID.
- FURNISH AND INSTALL THREE (3) 15AMP, 15KV RATED FUSES FOR PRIMARY OVERHEAD PROTECTION. REFER TO DETAIL ON SHEET E400 FOR MORE INFORMATION. THIS IS A PART OF THE ALTERNATE BID.
- FURNISH AND INSTALL NEW 225KVA TRANSFORMER. REFER TO SHEET E600 FOR MORE INFORMATION. THIS IS A PART OF THE ALTERNATE BID.
- FURNISH AND INSTALL 2" CONDUIT TO FUTURE CHARGING STATION LOCATION. STUB-UP CONDUIT AND PROVIDE CONDUIT BAR AT END. THIS IS A PART OF THE ALTERNATE BID.
- CONTRACTOR SHALL APPLY "EV CHARGING ONLY" STENCIL. LETTERS SHALL BE GREEN IN COLOR. 12" MIN. CENTERLINE OF TEXT TO BE MAX. 6" FROM CENTERLINE OF VEHICLE SPACE AND ITS LOWER CORNER AT OR LOWER SIDE ALIGNED WITH THE END OF THE VEHICLE SPACE LENGTH.







11-16-2023

PROFESSIONAL SEAL



MEP CONSULTANT

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PROJECT # 23002446.00

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SITE # 1501  
ASSET # 3511501147

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REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_

DRAWN BY: ZMB  
CHECKED BY: PIP  
DESIGNED BY: ZMB

SHEET TITLE:

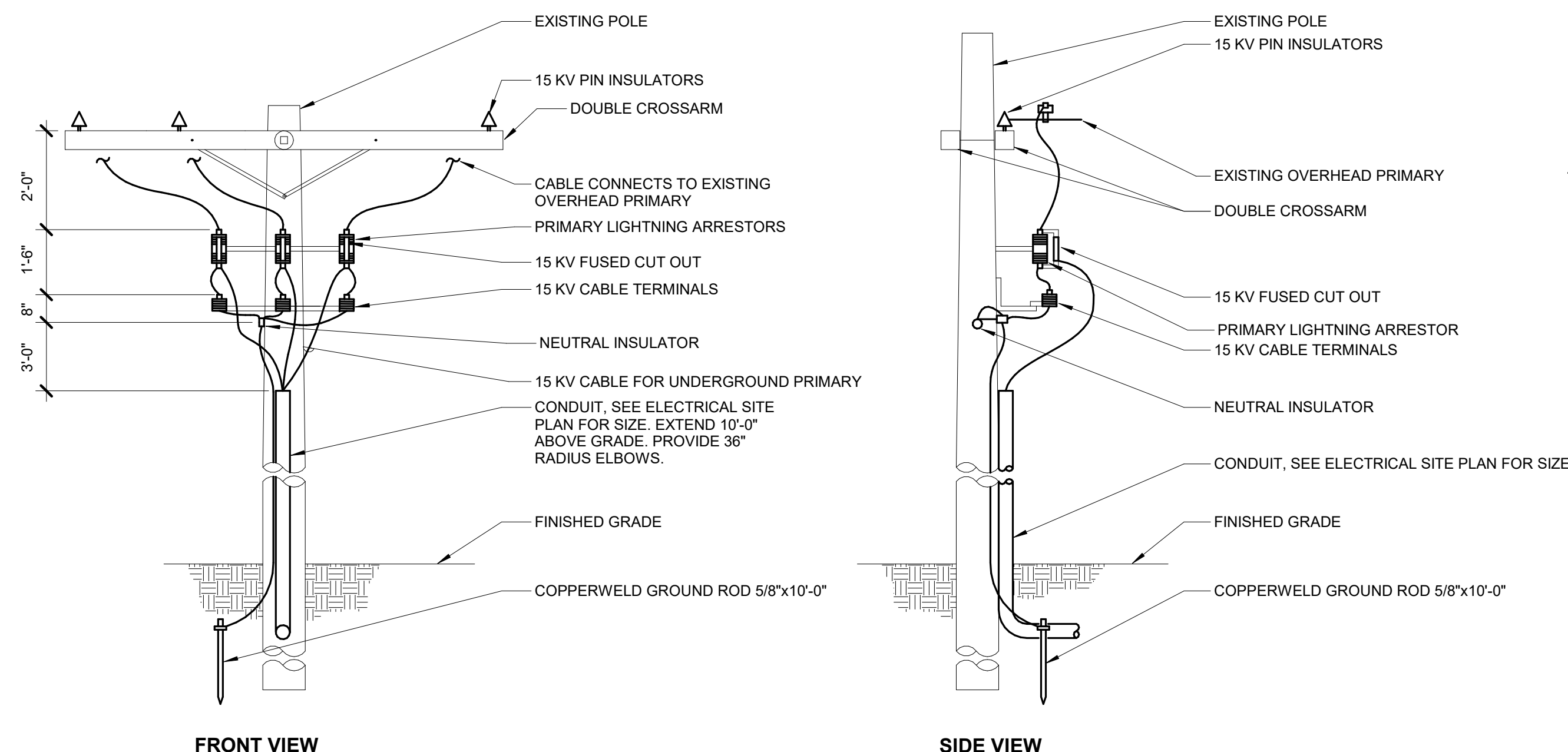
ELECTRICAL  
DETAILS

SHEET NUMBER:

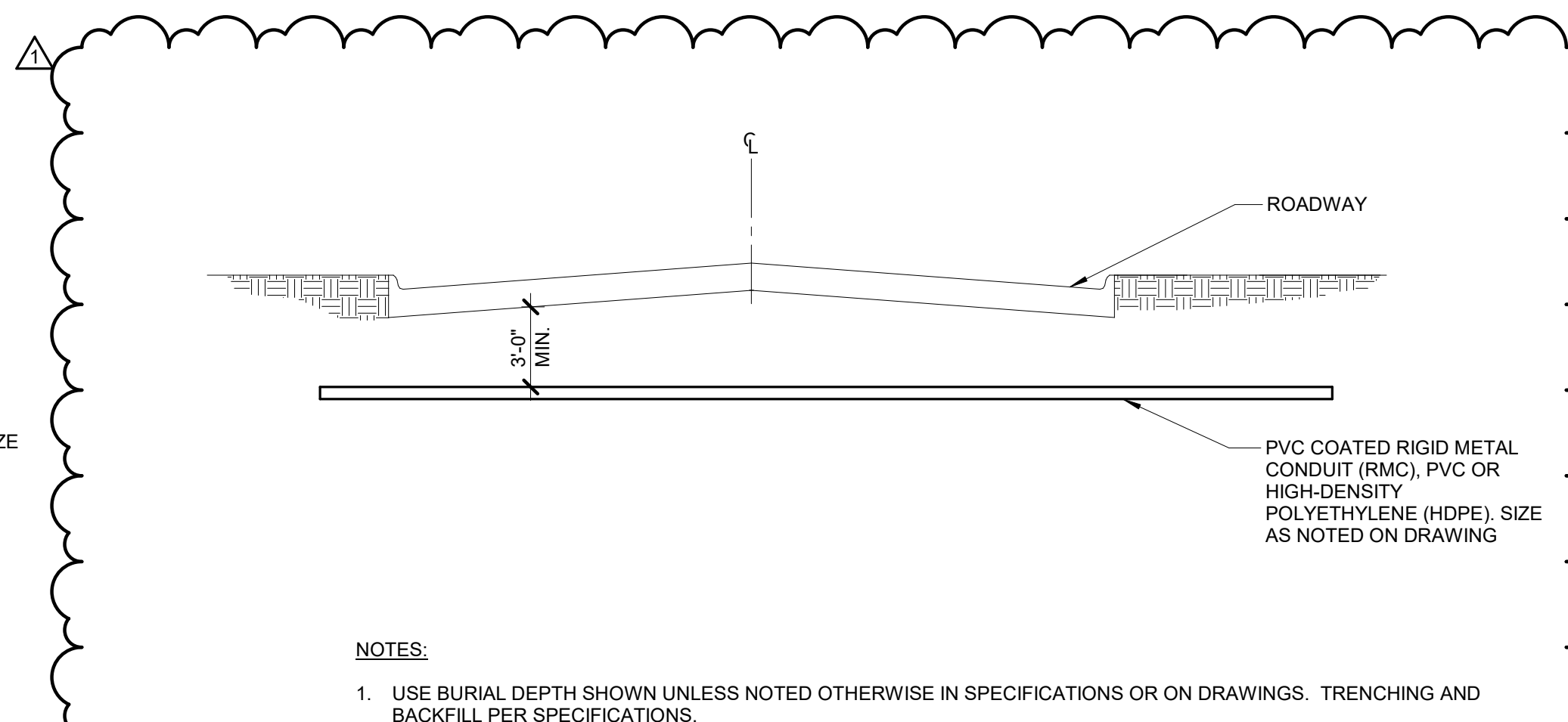
E-400

4 OF 6 SHEETS

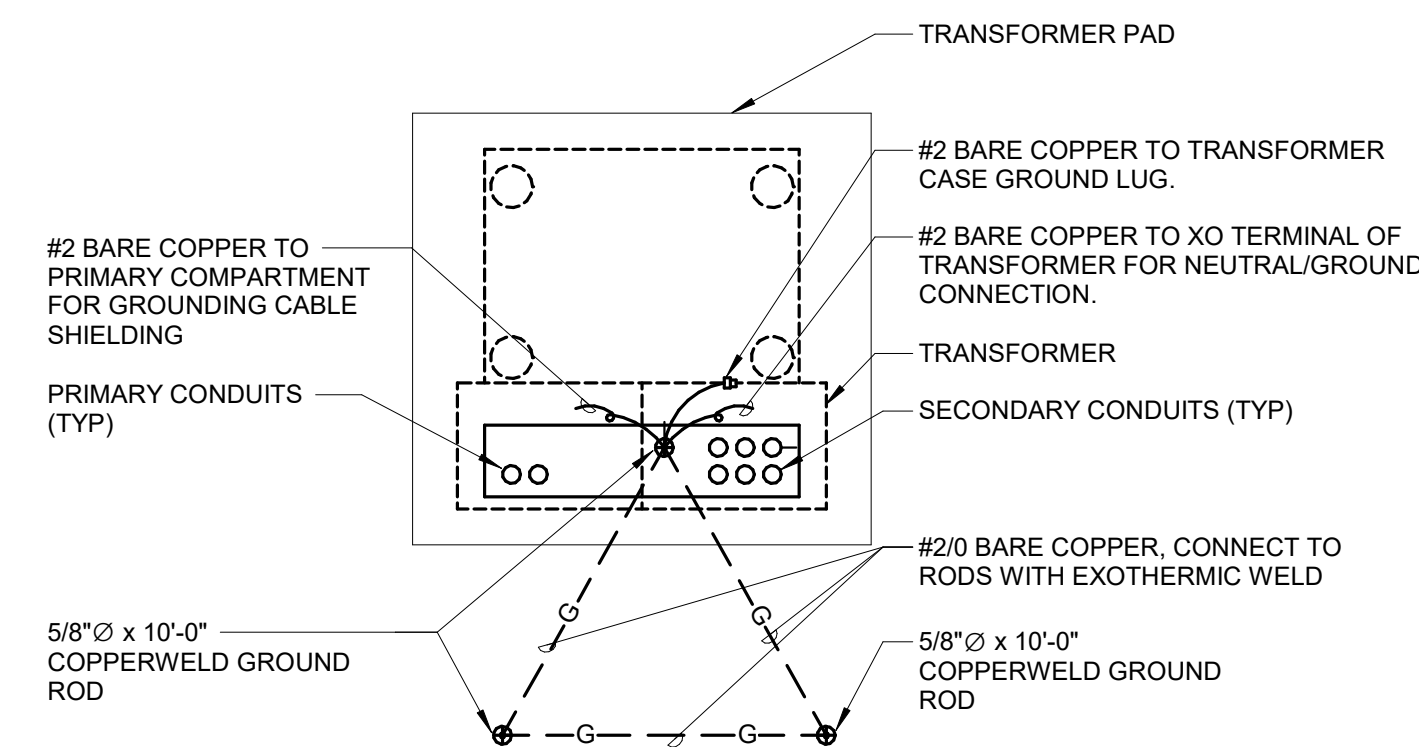
11/16/2023



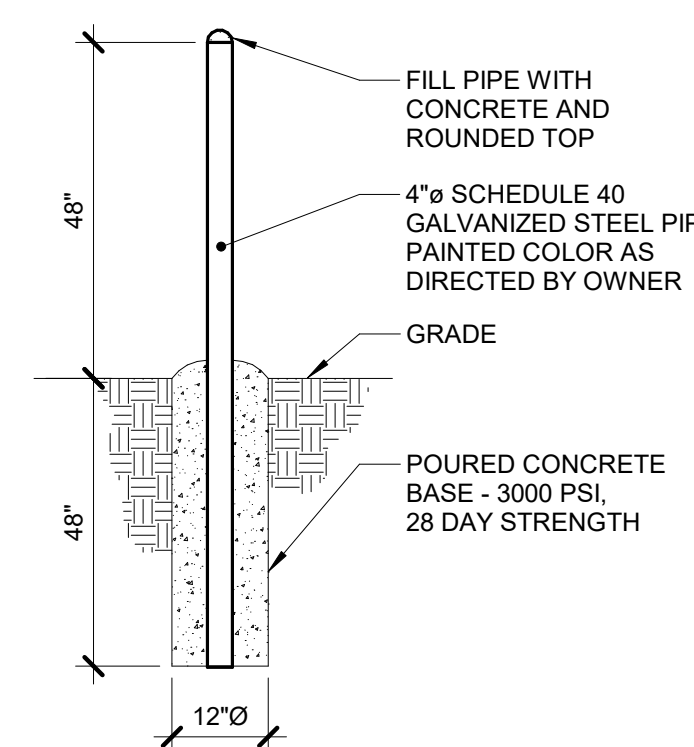
**1 UNDERGROUND PRIMARY RISER POLE DETAIL**  
NO SCALE  
E\_DM29



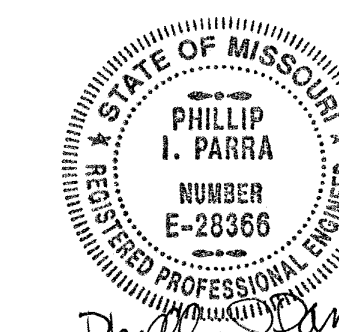
**2 ROADWAY UNDERGROUND CROSSING DETAIL**  
NO SCALE  
E\_DM29



**3 PAD MOUNTED TRANSFORMER GROUNDING DETAIL**  
NO SCALE  
E\_G30



**4 PROTECTIVE BOLLARD DETAIL**  
NO SCALE  
E\_P20



PROFESSIONAL SEAL



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DATE: \_\_\_\_\_

DRAWN BY: ZMB  
CHECKED BY: PIP  
DESIGNED BY: ZMB

SHEET TITLE:

ELECTRICAL  
RISERS &  
SCHEDULES

SHEET NUMBER:

E-600

6 OF 6 SHEETS  
11/16/2023

### SWITCHBOARD MSB

ENCLOSURE: NEMA 3R  
FED FROM: TRANSFORMER EV1 (112.5KVA)  
LOCATION:

SOLID NEUTRAL  
GROUND BUS

MAIN: 175 A MCCB  
VOLTS: 480/277 Wye  
PHASE: 3  
WIRE: 4  
SCCR: 18 kA  
ISC: 2.00 kA

NOTES: THIS IS A PART OF THE BASE BID. FURNISH SWITCHBOARD WITH INTERNAL TVSS. PROVIDE POWER METER IN SECTION OF SWITCHBOARD. PROVIDE ADJUSTABLE MAIN CIRCUIT BREAKER RATING.

CKT	LOAD DESCRIPTION	Load	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1	EV CHARGE STATION 1	65.8 kVA	3	125 A	100 A			4#1W & 1#8 GND, IN 2" C.	--
2	TVSS	0 kVA	3	100 A	30 A	--	--		--
3	SPACE	--	3	--	--	--	--		--
4	SPACE	--	3	--	--	--	--		--

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)				TOTALS*	
LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND		
Power	65.8 kVA	100.00%	65.8 kVA	TOTAL CONNECTED LOAD:	65.80 kVA
				TOTAL ESTIMATED DEMAND LOAD:	65.8 kVA
				TOTAL CONNECTED AMPS:	79.15 A
				TOTAL ESTIMATED DEMAND AMPS:	79.1 A

\*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

### SWITCHBOARD MSB-1

ENCLOSURE: NEMA 3R  
FED FROM: TRANSFORMER EV-1 (225KVA)  
LOCATION:

SOLID NEUTRAL  
GROUND BUS

MAIN: 350 A MCCB  
VOLTS: 480/277 Wye  
PHASE: 3  
WIRE: 4  
SCCR: 18 kA  
ISC: 3.60 kA

NOTES: THIS IS A PART OF THE ALTERNATE BID. FURNISH SWITCHBOARD WITH INTERNAL TVSS. PROVIDE POWER METER IN SECTION OF SWITCHBOARD. PROVIDE ADJUSTABLE MAIN CIRCUIT BREAKER RATING.

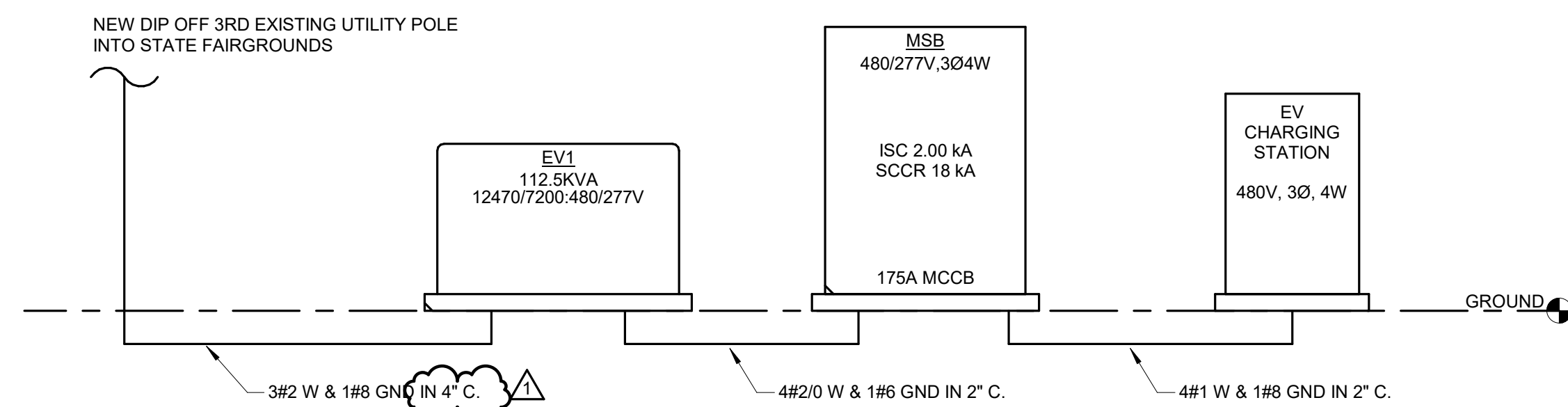
CKT	LOAD DESCRIPTION	LOAD	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1	EV CHARGE STATION 1	65.8 kVA	3	125 A	100 A			4#1W & 1#8 GND, IN 2" C.	--
2	TVSS	0 kVA	3	100 A	30 A	--	--		--
3	SPARE	65.8 kVA	3	125 A	100 A	--	--	2" C.	A
4	SPACE	--	3	--	--	--	--		--

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)				TOTALS*	
LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND		
Power	65.8 kVA	100.00%	65.8 kVA	TOTAL CONNECTED LOAD:	131.60 kVA
Spare	65.8 kVA	80.00%	52.64 kVA	TOTAL ESTIMATED DEMAND LOAD:	118.44 kVA
				TOTAL CONNECTED AMPS:	158.29 A
				TOTAL ESTIMATED DEMAND AMPS:	142.5 A

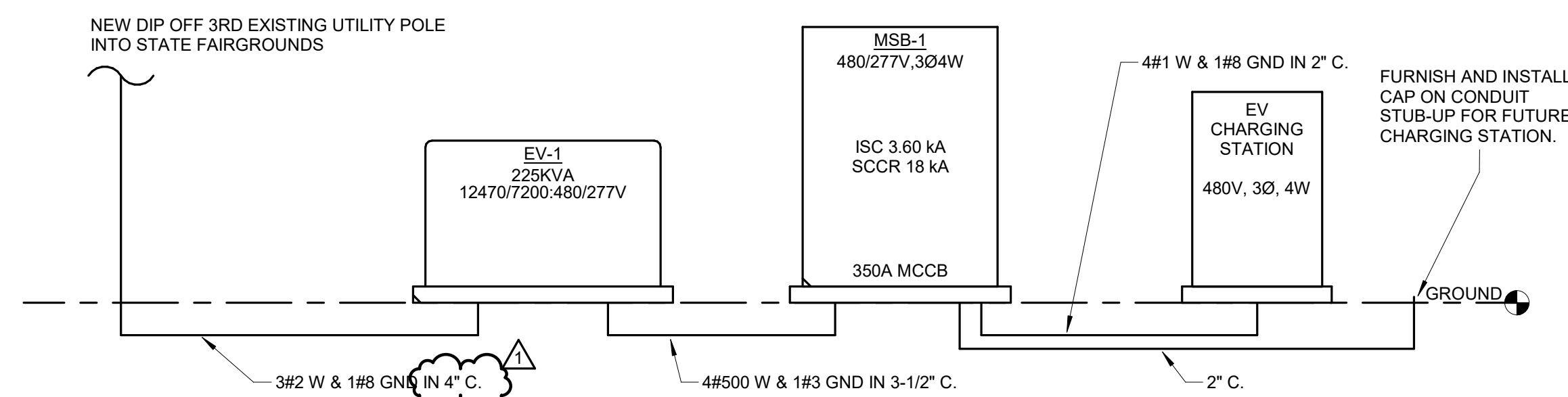
\*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES: A - FURNISH AND INSTALL CONDUIT STUB-UP FOR FUTURE CHARGING STATION.



## 1 NEW ELECTRICAL RISER DIAGRAM (BASE BID)

NO SCALE



## 2 NEW ELECTRICAL RISER DIAGRAM (ALTERNATE BID)

NO SCALE

### EV CHARGERS INFORMATION

#### DESCRIPTION:

- THIS PROJECT WILL INCLUDE ONE (1) DIRECT CURRENT FAST CHARGING (DCFC) STATION. THE CHARGING STATION WILL INCLUDE TWO (2) INTERNAL POWER MODULES THAT PROVIDE 31.25KW OUTPUT EACH, WITH A MAX OF 62.5KW OUTPUT. THE POWER DISTRIBUTION OF THE TWO MODULES CAN HAVE THE FUNCTIONALITY SETUP AT THE TIME OF INSTALLATION AND SHALL BE VERIFIED WITH THE OWNER.
- TWO (2) DIFFERENT CONNECTORS CAN BE INSTALLED BY THE CHOICE OF THE OWNER. THE FOLLOWING CONNECTORS SHALL BE INSTALLED:

- (1) CCS 1 COMBO
- (1) N.A.C.S.

- IF (1) N.A.C.S. CONNECTOR IS UNABLE TO BE PROVIDED AT THIS TIME, THEN PROVIDE (2) CCS 1 COMBO CONNECTORS. PROVIDE PROVISIONS FOR UPDATE IN THE FUTURE TO CHANGE OUT (1) CCS 1 COMBO WITH A N.A.C.S. CONNECTOR.

#### APPROVED MANUFACTURERS

- THE BASIS OF DESIGN FOR THIS PROJECT WAS THE CHARGE POINT EXPRESS 250 BUT THE FOLLOWING MANUFACTURERS ARE APPROVED FOR THIS PROJECT:

- CHARGE POINT
- SIEMENS EV CHARGING
- BOSCH EV SERIES
- BLINK CHARGING
- JUICE BAR

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