



CITY OF AZUSA NOTICE INVITING BIDS

The City of Azusa - Light and Water Department (Buyer) invites Bidders to submit bids for one SWITCHRACK STEEL (Goods). The contract consists of furnishing Goods with optional 5-year warranty, delivery to Azusa Substation offloading and furnishing spare parts.

The Goods shall be delivered within 126 calendar days (18 weeks) from the commencement of Contract Time.

Bidders shall submit one original and one duplicate of Bid per the Instructions to Bidders, Section 00 21 13.

Buyer will receive sealed bids for the Furnishing Equipment under specifications LD2020-Switchrack Steel until **10:00 AM** local time on **April 14th, 2020** at the office of City Clerk:

City Hall
213 E. Foothill Blvd
Azusa, CA 91702
Attention: City Clerk/Bid Document /Project LD2020-SWITCHRACK STEEL

Bids will then be opened publicly and read aloud. Bids received after the time of announced opening will not be accepted.

Each bid shall be made on the proposal form furnished by the City herewith and shall be in accordance with this notice and specifications on file available online at the following web link: <https://www.ci.azusa.ca.us/749/BidRequest-For-Proposals>

For further information, contact Hien Vuong (626) 812-5172 by email at: hvuong@azusaca.gov
Buyer reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, non-responsive, unbalanced or conditional Bids; and to reject the Bid of any Bidder if Buyer believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established. Buyer also reserves the right to waive all informalities not involving price, time, or other material changes to technical or contractual requirements.

Dated: March 24, 2020
/s/Jeffrey Lawrence Cornejo, Jr., City Clerk

Published in the San Gabriel Valley Tribune on March 26, 2020.

**PROCUREMENT CONTRACT
NO. LD2020-SWITCHRACK STEEL**

**SPECIFICATION
for
SWITCHRACK STEEL
AZUSA SUBSTATION**

Prepared and issued by:
City of Azusa
Azusa Light and Water Department
Azusa, CA
(Buyer)

In conjunction with:
EPS Engineering & Design
Springfield, MO
(Engineer)

March 2020

**SECTION 00 01 10
TABLE OF CONTENTS**

PROCUREMENT CONTRACT NO. LD2020-SWITCHRACK STEEL

**SWITCHRACK STEEL
AZUSA SUBSTATION
AZUSA LIGHT AND WATER**

<u>SECTION</u>	<u>DESCRIPTION</u>
DIVISION 00	PROCUREMENT AND CONTRACTING REQUIREMENTS

INTRODUCTORY INFORMATION

00 01 15 List of Drawings

PROCUREMENT REQUIREMENTS

00 10 00 Solicitation

00 11 16 Invitation to Bid

00 20 00 Instructions for Procurement

00 21 13 Instructions to Bidders

00 40 00 Procurement Forms and Supplements

00 41 63 Bid Form

00 43 93 Bid Submittal Checklist

00 45 05 Proposed Exceptions and Deviations

00 45 10 Data and Information Forming Part of the Bid

00 45 13 Bidder's Qualifications

00 45 19 Non-Collusion Affidavit

CONTRACTING REQUIREMENTS

00 50 00 Contracting Forms and Supplements

00 51 00 Notice of Award

00 52 63 Agreement (Purchase)

00 60 00 Project Forms

P-00 62 11 Submittal Transmittal Form

P-00 62 76 Application for Payment Form

P-00 63 13 Request for Interpretation/Information

P-00 63 26 Change Request Form

P-00 63 63 Change Order Form

DIVISION 33	TECHNICAL SPECIFICATION
--------------------	--------------------------------

33 73 20	Switchrack Steel
----------	------------------

END OF SECTION

**SECTION 00 01 15
LIST OF DRAWINGS**

PROCUREMENT CONTRACT NO. LD2020-SWITCHRACK STEEL

**SWITCHRACK STEEL
AZUSA SUBSTATION
AZUSA LIGHT AND WATER**

DRAWING NUMBER	DRAWING TITLE
REFERENCE DRAWINGS	
D-2104	SWITCHRACK LOADING CRITERIA

END OF SECTION

**SECTION 00 11 16
INVITATION TO BID**

PROCUREMENT CONTRACT NO. LD2020-SWITCHRACK STEEL

**SWITCHRACK STEEL
AZUSA SUBSTATION
AZUSA LIGHT AND WATER**

The City of Azusa - Light and Water Department (Buyer) invites Bidders to submit bids for one SWITCHRACK STEEL (Goods). The contract consists of furnishing Goods with optional 5-year warranty, delivery to Azusa Substation offloading and furnishing spare parts.

The Goods shall be delivered within 126 calendar days (18 weeks) from the commencement of Contract Time.

Bidders shall submit one original and one duplicate of Bid per the Instructions to Bidders, Section 00 21 13.

Buyer will receive sealed bids for the Furnishing Equipment under specifications LD2020-Switchrack Steel until **10:00 AM** local time on **April 14th, 2020** at the office of City Clerk:

City Hall
213 E. Foothill Blvd
Azusa, CA 91702
Attention: City Clerk/Bid Document /Project LD2020-SWITCHRACK STEEL

Bids will then be opened publicly and read aloud. Bids received after the time of announced opening will not be accepted.

Each bid shall be made on the proposal form furnished by the City herewith and shall be in accordance with this notice and specifications on file available online at the following web link: <https://www.ci.azusa.ca.us/749/BidRequest-For-Proposals>

For further information, contact Hien Vuong (626) 812-5172 by email at: hvuong@azusaca.gov

Buyer reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, non-responsive, unbalanced or conditional Bids; and to reject the Bid of any Bidder if Buyer believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established. Buyer also reserves the right to waive all informalities not involving price, time, or other material changes to technical or contractual requirements.

END OF SECTION

**SECTION 00 21 13
INSTRUCTIONS TO BIDDERS**

PROCUREMENT CONTRACT NO. LD2020-SWITCHRACK STEEL

**SWITCHRACK STEEL
AZUSA SUBSTATION
AZUSA LIGHT AND WATER**

ARTICLE 1 - DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders, will have the meanings indicated in Section 00 52 63, Agreement for Procurement Contract no. LD2020-Switchrack Steel. Additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof.

Forms for Bid shall mean the following forms included in the Bidding Documents that are required to be submitted as part of the Bid.

00 41 63	Bid Form
00 43 93	Bid Submittal Checklist
00 45 05	Proposed Exceptions and Deviations
00 45 10	Data and Information Forming Part of the Bid
00 45 13	Bidder's Qualifications
00 45 19	Non-Collusion Affidavit

ARTICLE 2 - BIDS RECEIVED

- 2.01 Refer to Invitation to Bid for information on receipt Bids.

ARTICLE 3 - COPIES OF BIDDING DOCUMENTS

- 3.01 Complete hardcopy sets of the Bidding Documents may be obtained as specified in the Invitation to Bid, Section 00 11 16.
- 3.02 Complete sets of the Bidding Documents shall be used in preparing Bids. Buyer does not assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 3.03 Buyer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for furnishing Goods and do not confer a license or grant for any other use.

ARTICLE 4 - QUALIFICATIONS OF BIDDERS

BASED ON: EJCDC P-200 Suggested Instructions to Bidders for Procurement Contracts
Copyright ©2000, National Society of Professional Engineers for EJCDC. All rights reserved

- 4.01 To demonstrate Bidder's qualifications to furnish Goods each Bidder shall submit information required by Section 00 45 13, Bidder's Qualifications, and must be prepared to submit within five days of Buyer's request, such other data as may be requested.

ARTICLE 5 - EXAMINATION OF BIDDING DOCUMENTS AND POINT OF DESTINATION

5.01 Not Used

5.02 It is the responsibility of each Bidder before submitting a Bid to:

- A. examine and carefully study the Bidding Documents, including any Addenda and the related data identified in the Bidding Documents;
- B. if specified, or if, in Bidder's judgment, any local condition may affect cost, progress or the furnishing of Goods, Bidder shall request clarification, in writing, from City prior to submitting bid;
- C. become familiar with and satisfy Bidder as to all Industry Standards, Laws and Regulations that may affect cost of furnishing of Goods;
- D. carefully study and correlate the information known to Bidder, and information and observations obtained from Bidder's visits (if any) to the Point of Destination, with the Bidding Documents;
- E. promptly give Buyer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Buyer is acceptable to Bidder;
- F. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for furnishing Goods.

5.03 The submission of a Bid will constitute an incontrovertible representation by Bidder that:

- A. Bidder has complied with every requirement of this document;
- B. the Bid is premised upon furnishing Goods required by the Bidding Documents;
- C. Bidder has given Buyer written notice of all conflicts, errors, ambiguities and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Buyer are acceptable to Bidder; and
- D. the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for furnishing Goods.

BASED ON: EJCDC P-200 Suggested Instructions to Bidders for Procurement Contracts
Copyright ©2000, National Society of Professional Engineers for EJCDC. All rights reserved

ARTICLE 6 - INTERPRETATIONS

6.01 All questions about the meaning or intent of the Bidding Documents shall be submitted to Buyer in writing. Interpretations or clarifications considered necessary by Buyer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Buyer as having received the Bidding Documents. Questions received less than 5 days prior to the date for opening of Bids will not be answered. Only answers in the Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect. All communications shall be in writing and submitted by electronic mail to City's representative: Hien Vuong at: hvuong@azusaca.gov. Issuance of addendum will be posted/announced on City's website at: <https://www.ci.azusa.ca.us/749/BidRequest-For-Proposals>

6.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Buyer.

ARTICLE 7 - NOT USED

ARTICLE 8 - CONTRACT TIMES

8.01 As set forth in the Agreement, Section 00 52 63.

ARTICLE 9 - LIQUIDATED DAMAGES

9.01 Provisions for liquidated damages (if any) are set forth in the Agreement, Section 00 52 63.

BASED ON: EJCDC P-200 Suggested Instructions to Bidders for Procurement Contracts
Copyright ©2000, National Society of Professional Engineers for EJCDC. All rights reserved

ARTICLE 10 - "OR EQUAL" ITEMS

10.1 The Contract, if awarded, will be on the basis of material and equipment specified or described in the Bidding Documents without consideration of possible "or equal" items. Whenever it is specified or described in the Bidding Documents that an "or equal" item of material or equipment may be furnished or used by Seller if acceptable to Buyer, application for such acceptance will not be considered by Buyer until after the Effective Date of the Agreement. The procedure for submittal of any such application by Seller and consideration by Buyer is set forth in the General Conditions.

ARTICLE 11 - PREPARATION OF BID

11.01 The Bid Form and other required Forms for Bid are included in the Bidding Documents. Additional copies may be obtained from Buyer.

11.02 All blanks on the Bid Form and required Forms for Bid shall be typed or printed in ink and the Bid signed in ink. A Bid price shall be indicated for each item required in the Bid, or the words "No Bid" or "Not Applicable" entered.

11.03 All names must be typed or printed in ink below the signature.

A. A Bid by a corporation shall be executed in the corporate name by the president or a vice president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

B. A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state in which the firm was formed and the official address of the firm shall be shown below the signature.

C. A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature) accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.

D. A Bid by an individual shall show the Bidder's name and official address.

11.04 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.

11.05 The contact, address, telephone number, and email address for communications regarding the Bid shall be shown.

BASED ON: EJCDC P-200 Suggested Instructions to Bidders for Procurement Contracts
Copyright ©2000, National Society of Professional Engineers for EJCDC. All rights reserved

ARTICLE 12 - SUBMITTAL OF BID

- 12.01 Each prospective Bidder is furnished one copy of the full Bidding Documents with one separate, unbound copy of the Forms for Bid. The Forms for Bid as listed in Article 1 above are to be completed and submitted with the Bid Form in the quantity indicated in the Invitation to Bid, Section 00 11 16.
- 12.02 Bids shall be submitted no later than the date and time indicated in the Invitation to Bid, Section 00 11 16, and shall be enclosed in an opaque sealed envelope, plainly marked with the Contract title, the name and address of the Bidder, and shall be accompanied by the Bid Form and Forms for Bid and other required documents. If the Bid is sent through the mail, courier, or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation "BID ENCLOSED".
- 12.03 Bids shall be addressed as indicated in the Invitation to Bid, Section 00 11 16.

ARTICLE 13 - MODIFICATION AND WITHDRAWAL OF BIDS

- 13.01 A Bid may be modified or withdrawn by a document executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.
- 13.02 If, within 24 hours after Bids are opened, any Bidder files a signed written notice with Buyer and promptly thereafter demonstrates to the reasonable satisfaction of Buyer that there was a material and substantial mistake in the preparation of its Bid, it may withdraw its Bid, and its Bid security will be returned. Thereafter, if the Goods are re-bid, that Bidder may be disqualified from further bidding on the Goods to be furnished under the Contract Documents at the Buyer's option.

ARTICLE 14 - OPENING OF BIDS

- 14.01 Bids will be opened at the time and place indicated in the Invitation to Bid, Section 00 11 16. Bids will then and there be publicly opened and read aloud unless obviously non-responsive.

ARTICLE 15 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 15.01 All Bids will remain subject to acceptance for 60 days, as stated in the Bid Form, but Buyer may, in its sole discretion, release any Bid and return the Bid security (if any) prior to the end of this period.

BASED ON: EJCDC P-200 Suggested Instructions to Bidders for Procurement Contracts
Copyright ©2000, National Society of Professional Engineers for EJCDC. All rights reserved

ARTICLE 16 - BASIS OF BID; COMPARISON OF BIDS

- 16.01 Bids may be compared on the basis of pricing, delivery time, operating costs, maintenance requirements, performance data and guarantees of Goods. Buyer will consider whether or not the Bids comply with the prescribed requirements, and such alternatives, unit prices and other data, as may be requested in the Bid Form or may be requested from Bidders prior to a Notice of Award. Buyer will also consider the qualifications of the Bidders.
- 16.02 Bidder shall submit a Bid as set forth on the Bid Form. Discrepancies between words and figures will be resolved in favor of words.
- 16.03 This document shall take precedence over all other documents for commercial criteria included in bid package. EPS document TS-0001 Switchrack Steel Specification shall take precedence with regard to technical criteria.
- 16.04 Buyer may conduct such investigations as Buyer deems necessary to establish the responsibility, qualifications, and financial ability of Bidder's proposed suppliers, individuals, or entities to furnish parts of the Goods in accordance with the Contract Documents.
- 16.05 More than one Bid for the same Goods from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Goods shall be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.

ARTICLE 17 - AWARD OF CONTRACT

- 17.01 Buyer reserves the right to reject any and all Bids, including without limitation, nonconforming, non-responsive, unbalanced, or conditional Bids. Buyer further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, not to be responsible. Buyer may also reject the Bid of any Bidder if Buyer believes that it would not be in the best interest of the Buyer to make an award to that Bidder. Buyer also reserves the right to waive all informalities not involving price, time, or other material changes to technical or contractual requirements.
- 17.02 If the Contract is to be awarded, Buyer will award the Contract to the Bidder whose Bid is in the best interest of Buyer.
- 17.03 If the Contract is to be awarded, Buyer will issue a Notice of Award per Section 00 51 00 to the Successful Bidder within 35 days after Bid opening.

ARTICLE 18 – NOT USED

BASED ON: EJCDC P-200 Suggested Instructions to Bidders for Procurement Contracts
Copyright ©2000, National Society of Professional Engineers for EJCDC. All rights reserved

ARTICLE 19 - SIGNING OF AGREEMENT

19.01 When Buyer issues a Notice of Award to Successful Bidder, it shall include instructions and conditions for submission of required documents and execution of the Agreement.

END OF SECTION

BASED ON: EJCDC P-200 Suggested Instructions to Bidders for Procurement Contracts
Copyright ©2000, National Society of Professional Engineers for EJCDC. All rights reserved

**SECTION 00 41 63
BID FORM**

PROCUREMENT CONTRACT NO. LD2020-SWITCHRACK STEEL

**SWITCHRACK STEEL
AZUSA SUBSTATION
AZUSA LIGHT AND WATER**

ARTICLE 1 - BID RECIPIENT

1.01 This Bid is submitted by: _____

This Bid is submitted to:

Azusa Light & Water, City of Azusa
729 N. Azusa Avenue, Azusa, CA 91702
Attention: Hien Vuong – Electric Operations

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Buyer in the form included in the Bidding Documents to furnish Goods as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 - BIDDER'S ACKNOWLEDGMENTS

2.01 Bidder accepts all of the terms and conditions of the Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. The Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Buyer.

2.02 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of its failure to furnish the Goods in accordance with the schedule set forth in the Agreement.

ARTICLE 3 - BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents:

A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of all of which is hereby acknowledged.

Addendum No.

Date

BASED ON: EJCDC P-400 Suggested Bid Form for Procurement Contracts
Copyright © 2000, National Society of Professional Engineers. All rights reserved.

- B. If specified, or if in Bidder's judgment, any local condition may affect cost, progress or the furnishing of Goods.
- C. Bidder is familiar with and is satisfied as to all applicable Industry Standards, Laws and Regulations that may affect cost, progress and the furnishing of Goods.
- D. Bidder has carefully studied and correlated the information known to Bidder, and information.
- E. Bidder has given Buyer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Buyer is acceptable to Bidder.
- F. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for furnishing the Goods for which this Bid is submitted.

ARTICLE 4 - BASIS OF BID

4.01 Bidder will furnish the Goods in accordance with the Contract Documents for the following price(s) including all applicable duties and taxes.

Furnish one SWITCHRACK STEEL as specified, including drawings, delivery, offloading, and assembly instructions by a manufacturer's field service engineer.	
LUMP SUM BID PRICE	
_____	\$ _____
_____ and _____/100	(Use figures)
(Use words)	

ARTICLE 5 – TIME OF COMPLETION

5.01. Bidder agrees that the furnishing of Goods will conform to the schedule set forth in Article 5 of the Agreement. If the delivery time is other than that set forth in the Agreement, the proposed delivery time is:

Goods:

ARTICLE 6 – ATTACHMENTS TO THIS BID

6.01 The following documents are attached to and made a condition of this Bid:

1. Required Bid security in the form of _____.
2. Section 00 43 93 Bid Submittal Checklist
3. Section 00 45 05 Proposed Exceptions and Deviations
4. Section 00 45 10 Data and Information Forming Part of the Bid
5. Section 00 45 13 Bidder's Qualifications
6. Section 00 45 19 Non-Collusion Affidavit

ARTICLE 7 – DEFINED TERMS

The terms used in this Bid have the meanings indicated in the General Conditions and the Supplementary Conditions. The significance of terms with initial capital letters is described in the General Conditions.

BASED ON: EJCDC P-400 Suggested Bid Form for Procurement Contracts
Copyright © 2000, National Society of Professional Engineers. All rights reserved.

ARTICLE 8 - BID SUBMITTAL

8.01 This Bid submitted by:

A Corporation

Corporation Name: _____

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By: _____

(Signature -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(CORPORATE SEAL)

Attest _____

(Signature of Corporate Secretary)

An Individual

Name (typed or printed): _____

By: _____

(Individual's signature)

Doing business as: _____

Business address: _____

Phone: _____ Email: _____

A Partnership

Partnership Name: _____

By: _____

(Signature of general partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Business address: _____

Phone: _____ Email: _____

Business address: _____

Phone: _____ Email: _____

Date of Qualification to do business is _____.

NAME, PHONE, EMAIL, AND MAILING ADDRESS FOR RECEIPT OF OFFICIAL COMMUNICATIONS:

BASED ON: EJCDC P-400 Suggested Bid Form for Procurement Contracts
Copyright © 2000, National Society of Professional Engineers. All rights reserved.

END OF SECTION

BASED ON: EJCDC P-400 Suggested Bid Form for Procurement Contracts
Copyright © 2000, National Society of Professional Engineers. All rights reserved.

Azusa/Project No.
LD2020-SWITCHRACK STEEL
Issue Date: March 26, 2020

00 41 63-5

BID FORM

**SECTION 00 43 93
BID SUBMITTAL CHECKLIST**

PROCUREMENT CONTRACT NO. LD2020-SWITCHRACK STEEL

**SWITCHRACK STEEL
AZUSA SUBSTATION
AZUSA LIGHT AND WATER**

BIDDER CONFIRMS THAT THE FOLLOWING DOCUMENTS ARE FULLY COMPLETED, INCLUDED IN AND MADE A PART OF ITS BID.

- Section 00 41 63 – Bid Form
- Evidence of ability to meet insurance requirements of the General Conditions
- Section 00 45 05 – Proposed Exceptions and Deviations
- Section 00 45 10 – Data and Information Forming Part of the Bid
- Section 00 45 13 – Bidder’s Qualifications
- Section 00 45 19 – Non-Collusion Affidavit
- Identify any Attachments below submitted by Bidder that are to be made part of its Bid (list items below or indicate “None”)

The original and **one** complete copy marked “Duplicate” of the above have been submitted to the Buyer in accordance with the Instructions to Bidders, Section 00 21 13.

Confirmed by Bidder _____

END OF SECTION

**SECTION 00 45 05
PROPOSED EXCEPTIONS OR DEVIATIONS**

PROCUREMENT CONTRACT NO. LD2020-SWITCHRACK STEEL

**SWITCHRACK STEEL
AZUSA SUBSTATION
AZUSA LIGHT AND WATER**

PROPOSED EXCEPTIONS AND DEVIATIONS MAY ONLY BE SUBMITTED ON THIS FORM AND MAY BE ACCEPTED OR REJECTED UNILATERALLY BY BUYER, IN ITS SOLE DISCRETION.

Each exception and deviation proposed (excluding Priced Options specified in the Bid Form) must be summarized and additively or deductively priced below with specific details attached in accordance with the instructions below. The summary must include a reference to the Section(s) of the Bidding Documents affected by the proposed exception. Bids that do not comply with these requirements for the presentation of exceptions may be considered non responsive and may be rejected at the discretion of the Buyer.

SUMMARY

Description	Price Adjustment Amount (Indicate deductions in parentheses)

**SECTION 00 45 10
DATA AND INFORMATION FORMING PART OF THE BID**

PROCUREMENT CONTRACT NO. LD2020-SWITCHRACK STEEL

**SWITCHRACK STEEL
AZUSA SUBSTATION
AZUSA LIGHT AND WATER**

- A. Submit certifications or evidence of ability to meet insurance requirements of the General and Supplementary Conditions.

- B. The following manufacturers are proposed to be employed to furnish components of the Goods:

Name	Address	Type of Components	Percent of Total Cost of Goods

TECHNICAL DATA – SWITCHRACK STEEL

Name of manufacturer	
Parts removed for shipment	
Proposed method of shipment	
Location of manufacturing facility for the equipment	
Loose Parts	
Details of warranty	Attach

RECOMMENDED SPARE PARTS

Submit a list recommended spare parts in addition to those included the Bid Pricing which may be purchased at Buyer’s option. Additional recommended spare part prices shall be listed, priced F.O.B. Point of Destination including all duties and taxes *but excluding Sales Tax*.

END OF SECTION

**SECTION 00 45 13
BIDDER'S QUALIFICATIONS**

PROCUREMENT CONTRACT NO. LD2020-SWITCHRACK STEEL

**SWITCHRACK STEEL
AZUSA SUBSTATION
AZUSA LIGHT AND WATER**

THE FOLLOWING STATEMENTS OF EXPERIENCE AND GENERAL QUALIFICATIONS OF BIDDER ARE SUBMITTED AS PART OF THE BID AND BIDDER REPRESENTS AND GUARANTEES THE TRUTHFULNESS AND ACCURACY THEREOF.

- A. Bidder has been in business continuously from the year _____.
- B. Bidder has had experience in manufacturing equipment comparable to that required by the Contract Documents as a prime manufacturer for _____ years, as a component manufacturer for _____ years, or as an equipment supplier for _____ years.
- C. Following is a list of the equipment Bidder has manufactured or supplied which is similar in character and in magnitude to that required by the Contract Documents:

Year	Name	Location	Contract Amount

END OF SECTION

**SECTION 00 45 19
NON-COLLUSION AFFIDAVIT**

I, _____, being duly sworn depose and under the penalty of perjury say that the following is true:

1. I am the person responsible within my firm for the final decision as to the price(s) and amount of this Bid or, if not, that I have written authorization, enclosed herewith, from that person to make the statements set out below on his or her behalf and on the behalf of my firm.
2. The price(s) and amount of this Bid have been arrived at independently, without collusion, consultation, communication, or agreement for the purpose of restricting competition with any other contractor, competitor, Bidder, or potential Bidder.
3. Unless otherwise required by law, neither the price(s) nor the amount of this Bid have been disclosed to any other firm or person who is a Bidder, competitor, or potential Bidder on this Project, and will not be so disclosed either directly or indirectly prior to Bid opening.
4. No attempt has been made or will be made to solicit, cause, or induce any firm, partnership, corporation, or person to submit or not submit a Bid on this Project, or to submit a Bid higher than the Bid of this firm, or submit an intentionally high or noncompetitive Bid or other form of complementary Bid, or for the purpose of restricting competition.
5. The Bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary Bid.
6. My firm has not offered or entered into a subcontracting agreement regarding the purchase of materials from any firm or person, or offered, promised, or paid cash or anything of value to any firm or person, whether in connection with this or any other Project, in consideration for an agreement or promise by any firm or person to refrain from proposing or to submit a complementary Bid on the Project.
7. My firm has not accepted nor been promised any subcontract or agreement regarding the sale of materials to any firm or person, and has not been promised or paid cash or anything of value to any firm or person, whether in connection with this or any other Project, in consideration for my firm's submitting a complementary Bid or agreeing to do so, on this Project.
8. I have made a diligent inquiry of all members, officers, employees, and agents of my firm with responsibilities relating to the preparation, approval, or submission of my firm's Bid on this Project and have been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, act, or other conduct inconsistent with any of the statements and representations made in this affidavit.

Attest:

Sworn to me this _____ day of _____, _____

Company Name

Signature and Company Position

Type Name Company Position

By: _____

Date: _____

**SECTION 00 51 00
NOTICE OF AWARD**

Dated: _____

Project:	Buyer:	Buyer's Contract No.:
Contract:		Engineer's Project No.:
Bidder:		
Bidder's Address:		

You are notified that your Bid dated _____*DATE* for the above Contract has been considered. You are the Successful Bidder and are awarded a Contract for _____*Indicate total Work, alternates or sections or Work awarded*.

The Total Price of your Contract:

_____ and _____/100 Dollars (\$_____)
(Use words) (Use figures)

Three sets of the Contract Documents will be delivered separately after compliance with the following conditions. You must comply with the following conditions precedent within 15 days of the date you receive this Notice of Award.

1. Deliver Insurance Certificates as evidence of insurance coverage required by General Conditions and Supplementary Conditions.
2. Other conditions precedent:

Failure to comply with these conditions within the time specified will entitle Buyer to consider you in default, annul this Notice of Award and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Buyer will provide copies of the Agreement and conformed Contract Documents for execution.

Buyer

By: _____
Authorized Signature

Title

**SECTION 00 52 63
AGREEMENT**

PROCUREMENT CONTRACT NO. LD2020-SWITCHRACK STEEL

**SWITCHRACK STEEL
AZUSA SUBSTATION
AZUSA LIGHT AND WATER**

THIS AGREEMENT between Azusa Light and Water, City of Azusa, (Buyer”), and _____ (“Seller”).

Buyer and Seller, in consideration of the mutual covenants set forth herein, agree as follows:

ARTICLE 1 - GOODS

1.01 Seller shall furnish the Goods as specified or indicated in the Contract Documents. The Goods to be furnished are described in the Summary of Work.

ARTICLE 2 - THE PROJECT

2.01 The Project for which the Goods to be provided under the Contract Documents may be the whole or only a part is generally described as Azusa Substation.

ARTICLE 3 - ENGINEER

3.01 The Contract Documents for the Goods have been specified by EPS Engineering & Design, who is hereinafter called Engineer and who is to assume all duties and responsibilities and have the rights and authority assigned to Engineer in the Contract Documents in connection with the furnishing of Goods.

ARTICLE 4 - POINT OF DESTINATION

4.01 The place where the Goods are to be delivered is defined in the General Conditions as the Point of Destination and is designated as:

Azusa Substation
City of Azusa
809 Angeleno
Azusa, CA 91702

BASED ON: EJCDC P-520 Suggested Form of Agreement Between Buyer and Seller for Procurement Contracts
Copyright ©2000, National Society of Professional Engineers. All rights reserved.

ARTICLE 5 - CONTRACT TIMES

5.01 *Time of the Essence*

- A. All time limits for Milestones, if any, the delivery of Goods as stated in the Contract Documents are of the essence of the Contract.

5.02 *Days for Submittal of Shop Drawings*

- A. All Shop Drawings and Samples required by the Contract Documents will be submitted to Buyer for Engineer's review and approval within 42 days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions.

5.03 *Date for Delivery of Goods*

- A. The Goods are to be delivered to the Point of Destination and ready for Buyer's receipt of delivery on (or within 15 days prior to) 31 August 2020.

5.04 *Taxes*

- A. Seller shall be responsible for all taxes and duties arising out of the sale of the Goods and the furnishing of Special Services. Seller shall pay all other taxes and duties required to be paid by in accordance with the Laws and Regulations.

5.05 *Liquidated Damages*

- A. Buyer and Seller recognize that time is of the essence of this Agreement and that Buyer will suffer financial loss if the drawings and design documentation are not delivered to Buyer within the times specified in Paragraph 5.02 above, plus any extensions thereof allowed in accordance with Article 7 of the General Conditions. The parties also recognize that the timely performance of services by others involved in the Project is materially dependent upon Seller's specific compliance with the requirements of Paragraph 5.02. Further, they recognize the delays, expense and difficulties involved in proving the actual loss suffered by Buyer if complete acceptable drawings and design documents are not delivered on time. Accordingly, instead of requiring such proof, Buyer and Seller agree that as liquidated damages **for delay** (but not as a penalty) Seller shall pay Buyer \$500 for each day that expires after the time specified in Paragraph 5.02 for delivery of all acceptable drawings and design documents.

BASED ON: EJCDC P-520 Suggested Form of Agreement Between Buyer and Seller for Procurement Contracts
Copyright ©2000, National Society of Professional Engineers. All rights reserved.

ARTICLE 6 - CONTRACT PRICE

6.01 Buyer shall pay Seller for furnishing the Goods in accordance with the Contract Documents in current U.S. funds as follows:

_____ and _____/100 Dollars (\$_____)
(Use words) (Use figures)

ARTICLE 7 - PAYMENT PROCEDURES

7.01 *Submittal and Processing of Payments*

- A. Seller shall submit Applications for Payment in accordance with Article 10 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

7.02 *Progress Payments*

- A. Buyer shall make progress payments on account of the Contract Price on the basis of Seller's Applications for Payment as follows:
1. Upon receipt of the first Application for Payment submitted in accordance with Paragraph 10.01.A.2 of the General Conditions in accordance with Paragraph 10.02.A of the General Conditions, an amount equal to **90-percent** of the Contract Price in accordance with Paragraph 10.02.A.3 of the General Conditions.
 2. Upon receipt of the second such Application for Payment in accordance with Paragraph 10.01.A.2 of the General Conditions, an amount sufficient to increase total payments to Seller to **90 percent** of the Contract Price, in accordance with Paragraph 10.02.A.3 of the General Conditions.

7.03 *Final Payment*

- A. Upon receipt of the final Application for Payment in accordance with paragraph 10.06 of the General Conditions, Buyer shall pay the remainder of the Contract Price.

ARTICLE 8 - INTEREST

8.01 All monies not paid when due, as provided in Article 10 of the General Conditions, shall bear interest at the rate of 4 percent per annum.

BASED ON: EJCDC P-520 Suggested Form of Agreement Between Buyer and Seller for Procurement Contracts
Copyright ©2000, National Society of Professional Engineers. All rights reserved.

ARTICLE 9 - SELLER'S REPRESENTATIONS

- 9.01 In order to induce Buyer to enter into this Agreement, Seller makes the following representations:
- A. Seller has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
 - B. If specified or if, in Seller's judgment, any local condition may affect cost, progress or the furnishing of the Goods, that may affect cost, progress or the furnishing of the Goods.
 - C. Seller is familiar with and is satisfied as to all industry standards, local federal, state and local Laws and Regulations that may affect cost, progress and the furnishing of the Goods.
 - D. Seller has carefully studied and correlated the information known to Seller with the Contract Documents.
 - E. Seller has given Buyer written notice of all conflicts, errors, ambiguities, or discrepancies that Seller has discovered in the Contract Documents.
 - F. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for furnishing Goods.

ARTICLE 10 - CONTRACT DOCUMENTS

10.01 *Contents*

- A. The Contract Documents consist of the following:
 - Notice of Award
 - This Agreement
 - Documentation submitted by Seller prior to Notice of Award (including portions of Seller's Bid)
 - Performance Bond
 - Payment Bond
 - Insurance Certificate or other Evidence
 - General and Supplementary Conditions
 - Specifications as listed in the table of contents
 - The following which may be delivered or issued after the Effective Date of this Agreement and are not attached hereto.
 - Notice to Proceed
 - Written Amendment(s)
 - Change Order(s)
 - Field Order(s)
 - Buyer's Written Interpretation(s)

BASED ON: EJCDC P-520 Suggested Form of Agreement Between Buyer and Seller for Procurement Contracts
Copyright ©2000, National Society of Professional Engineers. All rights reserved.

- B. The documents listed in 10.01.A are attached to this Agreement (except as expressly noted otherwise above.)
- C. There are no Contract Documents other than those listed in this Article 10.
- D. The Contract Documents may only be amended or supplemented as provided in Paragraph 3.04 of the General Conditions.

ARTICLE 11 - MISCELLANEOUS

11.01 Defined Terms

- A. Terms used in this Agreement will have the meanings indicated in the General Conditions and Supplementary Conditions.

11.02 Assignment

- A. No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound. Specifically, but without limitation, monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law). Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

11.03 Successors and Assigns

- A. Buyer and Seller each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

11.04 Severability

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken and all remaining provisions shall continue to be valid and binding upon Buyer and Seller. The Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

BASED ON: EJCDC P-520 Suggested Form of Agreement Between Buyer and Seller for Procurement Contracts
Copyright ©2000, National Society of Professional Engineers. All rights reserved.

IN WITNESS WHEREOF, Buyer and Seller have signed this Agreement in duplicate. One counterpart each has been delivered to Buyer and Seller. All portions of the Contract Documents have been signed or identified by Buyer and Seller or on their behalf.

This Agreement will be effective on _____ (Date)

Buyer: _____ Seller: _____

By: _____ By: _____
[Corporate Seal] [Corporate Seal]

Attest: _____ Attest: _____

Address for giving notice: _____ Address for giving notice: _____

(If Buyer is a corporation, attach evidence of authority to sign. If Buyer is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of Buyer-Seller Agreement.)

Agent for service of process:

(If Seller is a corporation or a partnership, attach evidence of authority to sign.)

Designated Representative: _____ Designated Representative: _____
Name: _____ Name: _____
Title: _____ Title: _____
Address: _____ Address: _____
Phone: _____ Phone: _____
Facsimile: _____ Facsimile: _____
Email: _____ Email: _____

END OF SECTION

BASED ON: EJCDC P-520 Suggested Form of Agreement Between Buyer and Seller for Procurement Contracts
Copyright ©2000, National Society of Professional Engineers. All rights reserved.

SHOP DRAWING TRANSMITTAL

PROJECT TITLE: _____
 PROJECT LOCATION: _____

PURCHASE ORDER NO. _____ CONTRACT NO. _____
 CONTRACT TITLE: _____

SELLER'S TRANSMITTAL

CHECK ONE:

This is: an original submittal TRANSMITTAL NO. _____

 a first resubmittal

 a _____ resubmittal SPEC. SECTION NO. _____

BUYER'S ACTION

LEGEND:

A - Approved RF - Reference

MC - Make NA - Submittal Not Required,

 Corrections No Action Taken

AR - Amend-Resubmit

NO. COPIES	MANUFACTURER	DWG. NO.	REV. NO.	SUBJECT	Action Taken	DISTRIBUTION				
						Cont.	Res. Engr.	Owner	Shop Dwg. File	Extra

Complete either (a) or (b) following:

(a) We have reviewed the material or equipment contained in this submittal and certify that it is correct and in strict conformance with the Contract Documents (no exceptions). Check One

(b) We have reviewed the material or equipment contained in this submittal and certify that it is correct and in strict conformance with the Contract Documents except for the following deviations (list deviations):

For additional remarks see Serial Letter No. _____

CONTRACTOR'S NAME _____

ADDRESS _____

BY _____ DATE _____

For additional remarks see Serial Letter No. _____

BY _____ DATE _____

Seller's Application For Payment No. _____

	Application Period:	Application Date:
To (Buyer):	From (Seller):	
Project:	Contract:	
Buyer's Contract No.:	Seller's Project No.:	

APPLICATION FOR PAYMENT

Change Order Summary			
Approved Change Orders			1. ORIGINAL CONTRACT PRICE \$
Number	Additions	Deductions	2. Net change by Change Orders \$
			3. CURRENT CONTRACT PRICE (Line 1 ± 2) \$
			4. TOTAL COMPLETED AND STORED TO DATE
			(Column F on Progress Estimate) \$
			5. RETAINAGE:
			a. _____ % x \$ _____ Goods \$
			b. _____ % x \$ _____ Special Services \$
			c. Total Retainage (Line 5a + Line 5b) \$
			6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5c) \$
TOTALS			7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application) \$
			8. AMOUNT DUE THIS APPLICATION \$
NET CHANGE BY			9. BALANCE TO FINISH, PLUS RETAINAGE
CHANGE ORDERS			(Column G on Progress Estimate + Line 5 above) \$

SELLER'S CERTIFICATION

The undersigned Seller certifies that: (1) all previous progress payments received from Buyer on account of Goods under the Contract have been applied on account to discharge Seller's legitimate obligations incurred in connection with work covered by prior Applications for Payment; (2) title of Goods or otherwise listed in or covered by this Application for Payment will pass to Buyer at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Buyer indemnifying Buyer against any such Liens, security interest or encumbrances); and (3) all Goods covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Payment of: \$ _____
(Line 8 or other - attach explanation of other amount)

Payment of: \$ _____
(Line 8 or other - attach explanation of other amount)

is approved by: _____ (Buyer) _____ (Date)

By: _____ Date: _____ Approved by: _____
Funding Agency (if applicable) _____ (Date)

**REQUEST FOR
INTERPRETATION/INFORMATION**

RFI #: _____ Attachment

To: _____
Attn: _____
Project: _____

From: _____
Issue Date: _____
Required Reply Date: _____

DISTRIBUTION:

Seller

Buyer

REFERENCES:

- Specifications: _____ Section: _____ Page/Paragraph: _____
- Drawings: _____ Issue Date: _____ Detail/Sections: _____
- Work Area: _____ Grid/Level: _____

RFI DESCRIPTION:

From: _____ Tel No: _____ Fax: No: _____
Initial: _____ E-mail: _____

RFI REPLY:

Possible Cost Effect Yes: No: **Possible Schedule Effect** Yes: No:

From: _____ Reply Date: _____ xc: _____
Initial: _____

CHANGE REQUEST (Design Changes/Deviations/Or-Equals/Substitutions)

CR NO.
DATE

Project:

Request Initiated by:
 Seller
 Buyer

Impact to Contract Price expected
 Impact to Contract Time expected
Change Orders will be processed separately

Request submitted as (format):

Description of Change (documentation attached)

Reason for Change

Response: This constitutes a Written Amendment to the Agreement.

Review of the proposed change/deviation/or-equal/substitution by Engineer is for general compatibility with the design concept of the Project and does not extend to design data which is peculiarly within the special expertise of Seller, nor does it extend to means, methods, sequences, or procedures of construction or to issues of safety incident thereto. This review shall not relieve the Seller from its responsibility for full compliance with the requirements specified and to determine and verify the information contained therein.

<p>Approved by Seller <input type="checkbox"/> Change Order to be requested</p> <p>NAME:</p> <hr/> <p><i>Signature</i> <i>Date</i></p>	<p><input type="checkbox"/> Approved by Buyer (no schedule or cost impact) <input type="checkbox"/> Acknowledged by Buyer – to be processed and approved under a separate Change Order</p> <p>NAME:</p> <hr/> <p><i>Signature</i> <i>Date</i></p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Change Order No. _____

Date of Issuance:	Effective Date:
Project:	Buyer:
Contract:	Buyer's Contract No.:
Seller:	Date of Contract:
	Engineer's Project No.:
The Contract Documents are modified as follows upon execution of this Change Order:	
Description:	
Attachments: (List documents supporting change):	

CHANGE IN CONTRACT PRICE:	CHANGE IN CONTRACT TIMES:
Original Contract Price: \$	Original Contract Times: <input type="checkbox"/> Working days <input type="checkbox"/> Calendar days Substantial completion (days or date): Ready for final payment (days or date):
[Increase] [Decrease] from previously approved Change Orders No. ## to No. ##: \$	[Increase] [Decrease] from previously approved Change Orders No. ## to No. ##: Substantial completion (days): Ready for final payment (days):
Contract Price prior to this Change Order: \$	Contract Times prior to this Change Order: Substantial completion (days or date): Ready for final payment (days or date):
[Increase] [Decrease] of this Change Order: \$	[Increase] [Decrease] of this Change Order: Substantial completion (days or date): Ready for final payment (days or date):
Contract Price incorporating this Change Order: \$	Contract Times with all approved Change Orders: Substantial completion (days or date): Ready for final payment (days or date):

ACCEPTED:	ACCEPTED:
By: _____ Seller (Authorized Signature)	By: _____ Buyer (Authorized Signature)
Date: _____	Date: _____
Approved by Funding Agency (if applicable): _____	Date: _____

Change Order Instructions

A. GENERAL INFORMATION

This document was developed to provide a uniform format for handling contract changes that affect Contract Price or Contract Times. Changes that have been initiated by a Change Request must be incorporated into a subsequent Change Order if they affect Price or Times.

Changes that affect Contract Price or Contract Times should be promptly covered by a Change Order. The practice of accumulating Change Orders to reduce the administrative burden may lead to unnecessary disputes.

If Milestones have been listed in the Agreement, any effect of a Change Order thereon should be addressed.

For supplemental instructions and minor changes not involving a change in the Contract Price or Contract Times, a Field Order should be used.

B. COMPLETING THE CHANGE ORDER FORM

Seller normally initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Seller, or requests from Buyer, or both.

Once Seller has completed and signed the form, all copies should be sent to Buyer or Seller for approval, depending on whether the Change Order is a true order to the Seller or the formalization of a negotiated agreement for a previously performed change. After approval by one contracting party, all copies should be sent to the other party for approval. Seller should make distribution of executed copies after approval by both parties.

If a change only applies to price or to times, cross out the part of the tabulation that does not apply.

SECTION 33 73 20
SWITCHRACK STEEL SPECIFICATION
APPENDIX A

Refer EPS document TS-0001 Switchrack Steel Specification for technical requirements.

END OF SECTION

City of Azusa Light and Water Department

Azusa Substation 2-Breaker Rack Addition

Steel Specification No. TS-0001

Revision/Approval History

Date	REV #	Description	Prepared by: Initials	1 st Approver: Initials & Date	2 nd Approver: Initials & Date
01/02/2020	0A	Initial Document	RSB	JAB 1/17/20	SDE 1/25/20
03/11/2020	0	Issued for Bid	DPP		SDE 03/11/20

This Document contains proprietary and confidential information that shall not be used, disclosed, or duplicated— in whole or in part – for any purpose other than to evaluate and/or respond to this Request for Proposal. The recipient of this document agrees to – limit the disclosure to those who have a need to know the confidential information contained in this document for purposes of this Request for Proposal, and who are bound in writing by confidentiality terms, policies or procedures no less restrictive.

Contents

1. Purpose	2
2. General	2
2.1. Specifications, Drawings or Other Documents.....	2
2.2. Codes and Standards	2
2.3. Seismic.....	4
2.4. Acceptance Requirements.....	4
2.5. Inspection.....	4
2.6. Warranty	5
2.7. Definitions.....	5
2.8. Interpretation of Documents After Contract Award	5
3. General Requirements	6
4. Steel Design	6
4.1. General.....	6
4.2. Design Constraints for Switchrack Structure.....	7
4.3. Design and Drafting.....	7
4.4. Submittals	7
5. Materials	10
5.1. General.....	10
5.2. Anchor Rods	11
5.3. Connections.....	12
5.4. Substitutions.....	12
6. Steel Fabrication and Supply	13
6.1. Scope.....	13
6.2. General.....	13
6.3. Processing	14
6.4. Marking.....	14
6.5. Assembly and Transportation	15
6.6. Rejection of Material	15
6.7. Quality Assurance.....	15
6.8. Finish.....	16
7. Erection	Error! Bookmark not defined.
7.1. Erection Preparation.....	Error! Bookmark not defined.
7.2. General.....	Error! Bookmark not defined.
Appendix A – Supporting Pictures of Existing Adjacent Switchrack	17

1. Purpose

- 1.1. This Specification defines the technical requirements for the structural steel to be designed and manufactured for installation and satisfactory operation outdoors under the conditions set in the contract documents. The equipment to be furnished under this specification includes the 2-breaker rack addition.
- 1.2. Drawings of the steel structure have been provided for bidding purposes only. These drawings are representative of the structure expected to be supplied under these specifications. The drawings included have not been verified to be structurally adequate for the intended use. It shall be the responsibility of the Contractor to verify the structural adequacy of the structure proposed by the Contractor and provide a structure that is appropriate for the intended purpose as part of the Work quoted. Any difference in cost between the structure depicted on the drawings provided by the Owner and the structures the Contractor will need to supply to meet the requirements of the specifications will be considered borne by the Contractor.

2. General

2.1. Specifications, Drawings or Other Documents

- 2.1.1 Any detail drawings shall govern and be controlling over general Drawings for the same part of the Work. In the event of any discrepancy between the Specifications and Drawings, the Specifications shall govern and be controlling.
- 2.1.2 Any specifications or drawings heretofore or hereafter prepared by Contractor in connection with the Work shall be deemed to be supplementary to the Specifications and Drawings. In case of a discrepancy between the two, the Contract shall govern.
- 2.1.3 Owner and/or the Engineer shall give Contractor all desired assistance in interpreting the Drawings and Specifications, but such assistance shall not relieve Contractor from complete responsibility for its work.

2.2. Codes and Standards

- 2.2.1 Any material, method, or procedure specified by reference to a specific standard or specification, such as a commercial standard, federal or state specification, industry or government code, trade association code or standard, or other similar standard, shall comply with the requirements in the latest revision thereof and any amendments or supplements thereto in effect on the date of these contract documents. In the event of conflicting requirements between a referenced specification, standard, or code and these specifications, the Contractor shall request a written clarification from Engineer.
- 2.2.2 The code, specification, or standard referred to, except as modified in these specifications, shall have full force and effect as though printed in these specifications. Such specifications and standards are not furnished to bidders, since manufacturers and trades involved are assumed to be familiar with their requirements. The Engineer

shall furnish, upon request, information as to how copies of the specifications and standards referred to may be obtained.

2.2.3 Whenever an abbreviation is specified, it shall be understood to mean the full name of the respective organization (and referenced specification, code, practice, rule, etc.) as listed below.

2.2.4 All materials and equipment shall be new and shall comply with the applicable standard in every case where such a standard has been established for the particular type of material in question. The following standards shall be considered as minimum standards for this project:

- AISC - American Institute of Steel Construction
 - AISC 341 - Seismic Provisions for Structural Steel Buildings
 - AISC 360 – Specification for Structural Steel Buildings
 - RCSC - Research Council on Structural Connections "Specification for Structural Joints Using ASTM A325 or A490 Bolts"
- ANSI - American National Standards Institute
- ASME - American Society of Mechanical Engineers
- ASTM - American Society for Testing and Materials
 - ASTM A108 - Standard Specification for Steel Bar, Carbon and Alloy, Cold-Finished
 - ASTM A123/A123M – Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
 - ASTM A153/A153M – Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
 - ASTM A283/A283M – Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates
 - ASTM A36/A36M - Standard Specification for Carbon Structural Steel
 - ASTM A385 – Standard Practice for Providing High-Quality Zinc Coatings (Hot-Dip)
 - ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes
 - ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
 - ASTM A572/A572M - Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel
 - ASTM A780 - Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings
 - ASTM A992/A992M - Standard Specification for Structural Steel Shapes

- ASTM F3125/F3125M – Standard Specification for High Strength Structural Bolts and Assemblies, Steel and Alloy Steel, Heat Treated, Inch Dimensions 120 ksi and 150 ksi Minimum Tensile Strength, and Metric Dimensions 830 MPA and 1040 MPA Minimum Tensile Strength
- AWS - American Welding Society
 - AWS D1.1 - Structural Welding Code - Steel
 - AWS D1.8 -Structural Welding Code - Seismic Supplement
- IBC - International Building Code
- ICBO - International Conference of Building Officials
- IEEE – Recommended Practice for Seismic Design of Substations
- NFPA - National Fire Protection Association
- OSHA - Occupational Safety and Health Act
- SSPC - Society for Protective Coatings
- UL - Underwriters' Laboratories
- UBC - Uniform Building Code

2.3. Seismic

2.3.1 The structure shall meet the seismic qualifications data provided on the Drawings. The structure shall be designed in accordance with the latest revision of ASCE 113.

2.4. Acceptance Requirements

2.4.1 Structures purchased under this Specification shall meet the requirements specified herein.

2.4.2 The structure shall be satisfactory to Owner in design and operation. If in the opinion of Owner, the structure is not in accordance with this Specification, the Supplier shall conform as required, with no cost to Owner.

2.5. Inspection

2.5.1 Authorized representatives of Owner shall at all times have the right to inspect the work and Supplier shall make his plant available to Owner personnel for such inspections. The Contractor shall give Owner a minimum of ten (10) days advance notice prior to factor testing and shipping.

2.5.2 All tests are subject to Owner approval. When specific tests or inspections are required, work on the structure shall not proceed until Owner has made or waived the inspection option.

- 2.5.3 Should Owner elect to waive the right to inspection, or of witnessing tests, Owner will promptly inform the Supplier.
- 2.5.4 Material or equipment identified for inspection shall not be released for shipment until equipment has satisfactorily passed the Owner's inspection and tests.
- 2.5.5 Owner shall have the right to request specific tests if necessary, provided such tests will not delay the production process.
- 2.5.6 The Contractor shall notify the Owner not less than two (2) weeks in advance of the day when:
 - 2.5.6.1. Manufacture or fabrication starts.
 - 2.5.6.2. The product is ready for testing (if required).
 - 2.5.6.3. The finished product is ready for inspection.

2.6. Warranty

- 2.6.1 The Contractor shall warrant the structure to be free of defects and workmanship for a period of one (1) year from energization or eighteen (18) months from delivery, whichever is sooner. Any defects or repairs shall be performed by the Contractor at no charge to the Owner.

2.7. Definitions

- 2.7.1 Heavy Sections: Per ASTM A341, shapes with flanges thicker than 1-1/2 inches (38 mm); welded built-up members with web or flange plates exceeding 1-1/2 inches (38 mm) in thickness.
- 2.7.2 Protected Zone: Areas of members and connections of the seismic load resisting system (SLRS) designated on the drawings where discontinuities created by fabrication and erection operations and other structural and non-structural welded and bolted attachments are restricted per AISC 341.
- 2.7.3 Demand Critical Weld: Per AISC 341, welds used in primary members and connections in the Seismic Force Resisting System, including complete penetration, partial penetration and fillet welds. Except as specifically noted on Drawings or approved in writing by the Owner's Representative, the following welds shall be considered Demand Critical Welds: welds between brace gussets and frame; welds of braced frame columns to baseplates and braced frame column splices, welds at moment resisting connections of beams to columns, including shear tabs and continuity plates; and welds noted on Drawings as Demand Critical.

2.8. Interpretation of Documents After Contract Award

- 2.8.1 Contractor shall report any errors or ambiguities in the Specifications and/or Drawings to the Engineer as soon as detected. The Engineer shall interpret the intended meaning

of the Specifications and/or Drawings and give his recommendations; this interpretation shall be final.

- 2.8.2 If any fabrication or erection problems arise that is not covered by these Specifications, the Engineer shall be consulted immediately and shall render a decision on the problem. Failure to notify the Engineer in a timely manner shall preclude any change to the Contract Time or Price.

3. General Requirements

- 3.1. Work to be performed as part of the design, fabrication, and supply of the switchrack structure shall be performed by the Contractor. Hereafter, all work associated with this scope is referenced to the Contractor.
- 3.2. Contractor shall furnish all labor, material, transportation, tools and other apparatus, and supervision required to design, fabricate and supply a complete 2 bay substation switchrack in conformity with this Agreement. Contractor shall perform all incidental work necessary to carry out the intent of the Specification and Drawings.
- 3.3. Contractor shall perform complete work regardless of possible omissions in the Drawings, construction units, vendor drawings, Owner-furnished material lists, and these Specifications. Miscellaneous material items that are missing shall be furnished by the Contractor at no additional cost to the Owner to produce a complete working system in conformity with the intent of the work. The Engineer shall have final authority in determining the Contractor's responsibility to complete all work in conformance with the Drawings and Specifications. The Engineer shall have the final authority to direct the Contractor to correct work that has been improperly performed, at no additional cost to the Owner.
- 3.4. Contractor shall provide all labor and equipment necessary to design, fabricate, and supply material in accordance with the Contract Documents.
- 3.5. Owner reserves the right to reject any materials and work which are not considered to be up to the highest standards of the trades involved. Such inferior material or work quality shall be repaired or replaced as directed, at no additional cost to the Owner.

4. Steel Design

4.1. General

- 4.1.1 Contractor shall design a 2-breaker switchrack steel structure based on these Specifications and the loads, geometry, and layout on the Drawings.
- 4.1.2 Structure design shall be based on IEEE 693 Recommended Practice for Design of Substations, and per ASCE 113 and AISC 360 Specification for Structural Steel Buildings.
- 4.1.3 The design shall be based on an elastic analysis. The structure shall be designed such that the unit stress is not greater than the minimum specified yield point of the material

under the specified structure loads, with proper modifications to accommodate allowances for local buckling and deflection.

- 4.1.4 The Contractor shall be fully responsible for his design and its satisfactory performance. Approval by the Owner or Owner's Representative does not relieve the Contractor of the responsibility for the adequacy of the detailed design.
- 4.1.5 The Contractor shall make every effort to match the existing switchrack structure in appearance and concept. For further information, see Appendix A Supporting Pictures of Existing Adjacent Switchrack. Coordinate with Engineer as necessary.

4.2. Design Constraints for Switchrack Structure

- 4.2.1 The term "deflection" as used herein are defined as the deviation of a structural member from its intended theoretical design position to its actual position under maximum loading conditions. The deflection limits, structure class and loadings shall be per ASCE 113.
- 4.2.2 The design is to be such that the assembled structure shall withstand the maximum design loading without experiencing distress or permanent deformation in any individual member. The effects of gravity loads in the deflected position (nonlinear effects) shall be taken into account in the design of the structure.
- 4.2.3 The design shall ensure that the yield stress will be reached before a buckling failure will occur.

4.3. Design and Drafting

- 4.3.1 The measurement system used for this project shall be the U.S. Customary System. All drawings and dimensions shall be to scale. Non-scale dimensions (NTS) on drawings shall not be permitted on scalable drawings.
- 4.3.2 The Contractor shall make reasonable efforts to secure electronically formatted drawings and documents from all Manufacturers. When electronic formatting is not obtainable due to supplier policies and/or procedures, the Contractor shall have such material scanned and submitted in ".tif" or ".pdf" format. Manufacturer drawings in ".dxf" or AutoCAD format shall be accepted.

4.4. Submittals

- 4.4.1 A report, as outlined in IEEE 693 section A6, detailing the maximum controlling stresses, allowable capacities, factors of safety, dimensions, weights, load cases and combinations, equipment and structure reactions, support (base) reactions, etc.
- 4.4.2 The design calculations shall be the responsibility of the Contractor. Preliminary data to be submitted to the Owner with the bid shall include:
- Calculated shipping weight of structure, excluding anchor rods.

- Calculated shipping weight of anchor rods.
- Anchor rod size, length, location, and projection.
- Type of material of major components (ASTM) designations, if applicable.
- Descriptions of major components (columns, beams, etc.), including thickness, length, cross-sectional geometry, and method of fastening each major component.
- Method of attaching appurtenances to the structure.
- Design exceptions or alternates.

4.4.3 Final design data to be furnished after an order has been placed shall include:

- Design calculations for columns, base plates, anchor bolts, beams and other appurtenances, including their connections, for the structure. Design calculations shall include stresses and calculated deflections at all critical points

4.4.4 Shop drawings for structural steel fabrications shall be submitted for review prior to fabrication. Examples include, but are not limited to:

- 4.4.4.1. Complete fabrication and erection plans and procedures giving full information on aspects of the erection which will affect alignment, plumb and dimensional accuracy of the structure.
- 4.4.4.2. Connections including size and spacing of bolts and welds.
- 4.4.4.3. Baseplate and anchorage design and details.
- 4.4.4.4. Plans shall indicate profiles, sizes, spacing, and locations of structural members, openings, camber and attachments. Plans shall indicate welded connections with AWS symbols and net welding length. Plans shall include details of welding materials, equipment, sequence and technique to be used. Shop and erection details incorporating demand critical welds shall include explicit references to corresponding weld procedure specifications.
- 4.4.4.5. A detailed bill of material for material items and assemblies to be supplied as part of the switchrack structure.

4.4.5 Weld Procedure Specifications: Contractor shall submit weld procedure specifications (WPS) for each shop and field welding joint type and process to the Engineer for review.

- 4.4.5.1. The WPS shall be prepared and signed by a welding professional whose qualifications include a minimum of 5 years experience with the welding technologies proposed.
- 4.4.5.2. The WPS shall include, at a minimum, the information specified in AWS D1.1, Section 3 and the supplemental provisions of Annex H.
- 4.4.5.3. Prequalified WPS may be used provided they meet the requirements of AWS D1.1, Section 3 for prequalified welds.
- 4.4.5.4. Any single deviation from the AWS D1.1 requirements for prequalified welds shall necessitate qualification by test per AWS D1.1, Section 4. WPS that are qualified

by testing shall conform the additional requirements of AWS D1.1, Annex IV and shall include the corresponding Procedure Qualification Records (PQRs).

- 4.4.5.5. WPS for demand critical welds shall conform to the additional requirements of AWS D1.8, Section 6.1.
- 4.4.6 Welder Performance Qualification Records (WPQR): Contractor shall submit WPQR for each shop and field welder to the Engineer for review.
- 4.4.7 Manufacturer's Certificate: Contractor shall submit certification that manufactured products (including bolts, nuts and washers) meet or exceed specified requirements. Manufactured products are to be delivered in unopened containers. Certification numbers must appear on product containers for bolts, nuts and washers and the numbers shall correspond to the identification numbers on the Manufacturer's Certificate. The Manufacturer's symbol and grade markings must appear on bolts, nuts and washers.
- 4.4.8 Mill Test Reports: Contractor shall submit mill test reports indicating structural strength, destructive and nondestructive test analysis and chemical analyses from each heat of steel used in the work.
- 4.4.9 Approval drawings
 - 4.4.9.1. Structure shop and assembly drawings shall be issued by the structure manufacturer to describe the design within 6 weeks ARO in AutoCAD format plus a Portable Document Format (PDF) electronic format. The Contractor shall submit structure design drawings to the Owner for approval. The submittal shall be accompanied by a transmittal letter identifying all drawings by drawing number, revision number and drawing description. Any cost associated with proceeding on structure approval drawings without approval by the Owner shall be the responsibility of the Contractor.
 - 4.4.9.2. Within two (2) weeks after review by Owner, one print of each drawing will be returned to the Contractor with a letter designating the approval status of each drawing. The Owner status given to a drawing will be one of the following: "approved", "approved as shown" or "not approved". Approval by the Owner shall in no way abrogate the requirements of these Specifications. The Supplier shall be responsible for furnishing a complete, coordinated and integrated design which, when finished, shall be workable and consistent with the requirements of these Specifications.
 - 4.4.9.3. If a drawing is designated as 'approved', the Supplier may proceed with the work covered by the drawing.
 - 4.4.9.4. If a drawing is designated as 'approved as shown', the Supplier may proceed with the work covered by the drawing and the corrections shown. However, the Supplier shall promptly revise the drawings in accordance with the corrections and resubmit drawings to the Owner.
 - 4.4.9.5. If a drawing is designated as 'not approved', the Supplier shall revise the drawing to comply with the requirements of the Contract and resubmit drawings to the Owner.

4.4.9.6. Contractor shall submit drawings in AutoCAD format plus a Portable Document Format (PDF) electronic format. To expedite the approval process, electronic copies can be sent by email. The Owner and Engineer will review and return to Bidder with comments.

4.4.9.7. After the Bidder receives a copy of the drawings as noted by the Engineer, he will then correct the drawings and will then furnish the Owner and Engineer with updated drawings and information.

4.4.9.8. Drawings shall be sent directly or email to:

Owner
Hien K. Vuong, PE
Assistant Director of Utilities- Electric Operations
City of Azusa, Light & Water
729 N. Azusa Avenue
Azusa, CA 91702
Phone: 626-812-5172
Email: hvuong@azusaca.gov

Owner's Engineer
ATTN Ryan Burkhardt
EPS Engineering & Design, Inc.
11960 Westline Industrial Drive, Suite 330
St. Louis, MO 63146
Phone: 314-985-8741
Mobile: 314-348-6410
Fax: 314-890-9998
Email: r.burkhardt@eps-ed.com

4.4.9.9. Performance drawings, final calculations, and shop drawings provided by the Contractor shall be signed and sealed by an Engineer registered to practice in the state of California. See 'Quality Assurance'.

4.4.10 Record drawings

4.4.10.1. Within four (4) weeks after receipt of the approved drawings, the Contractor shall furnish Owner with one complete set of updated paper prints and CAD files.

4.4.11 As-built drawings

4.4.11.1. The Contractor shall furnish as-built drawings if any changes are made prior to the energization date. One set of marked up paper print drawings with a new revision number shall be forwarded within two (2) weeks from equipment energization date. Red shall be used for additions; green shall be used for deletions.

5. Materials

5.1. General

5.1.1 All materials shall be purchased and tested to conform to the chemical and mechanical properties of the applicable ASTM standard.

- 5.1.2 Structural steel members: ASTM A992 for rolled wide flange shapes.
 - 5.1.3 Heavy sections shall meet the requirements of AISC 360, Section A3.1c.
 - 5.1.4 Hot rolled sections with flange thickness 1-1/2 inch and greater shall have Charpy V-Notch toughness per AISC 341 for heavy sections.
 - 5.1.5 Plates, bars, angles and channels: ASTM A36 unless otherwise noted on the drawings.
 - 5.1.6 Structural tubing: ASTM A500, Grade B.
 - 5.1.7 Pipe: ASTM A53, Type E or S, Grade B.
 - 5.1.8 Bolts and nuts: Bolts in structural steel connections shall be ASTM A325 unless designated as A490 on the drawings. Nuts shall be ASTM A563 Grade C or DH. Where galvanized connectors are called for on the drawings, they shall be galvanized in accordance with ASTM A153.
 - 5.1.9 All assembly bolts and nuts shall be supplied in quantities 5 percent greater than required by the design. All excess hardware shall become the property of the Owner at the completion of the project.
 - 5.1.10 Washers shall be flat and either circular, square or rectangular conforming to ASTM F436. The finish of washers is to match the nut. A325 bolts shall have washers under the head and A490 bolts shall have hardened washers under the head and the nut.
 - 5.1.11 Anchor bolts: ASTM F1554 Grades 36,55, or 105 ksi yield strength. Nuts shall have a proof strength equal to or greater than the yield strength of the anchor bolt material.
 - 5.1.12 Welding Materials: Filler metals shall conform to Annex M of AWS D1.1. Electrodes and equipment settings shall be as recommended by the filler metal manufacturer for the position, thickness and conditions of use. In addition, filler metal for Demand Critical Welds shall be capable of producing welds with Charpy V-Notch test values conforming to the AISC 341.
 - 5.1.13 Contractor shall assume full responsibility for the accuracy of quantities, the care and protection of the material and the cost of replacing any shortage and/or damaged materials supplied by Contractor. Should Contractor damage or lose materials, Contractor shall at the option of Owner, either repair or replace these materials at their own expense.
 - 5.1.14 Contractor shall furnish for approval all samples of materials or finish as directed. When approved in writing by Owner's Representative, the Work shall be executed in accordance with the approved samples.
- 5.2. Anchor Rods
- 5.2.1 Unless otherwise specified, anchor rods shall be long enough to transfer the steel structure loads to the longitudinal reinforcement in the foundation. The Engineer designing the foundation may require lengthening the anchor rods in order to transfer the loads. A maximum value of 3,000 pounds per square inch shall be assumed for the compressive strength of the concrete in the footing.

5.2.2 Anchor rods shall be considered as a part of the structure and shall be designed and furnished by the Contractor.

5.3. Connections

5.3.1 Unless otherwise noted on the drawings, shop connections shall be welded and field connections, except moment connections, shall be bolted. Provide shop assemblies where possible and permissible based on shop and shipping limitations. Weld only in accordance with approved welding procedures.

5.3.2 Bolted connections shall be a minimum of 3/4-inch diameter; connections shall have a minimum of two bolts.

5.3.3 All elements of a connection shall be designed to resist the loads and moments shown on the drawings; if the reaction or load is not shown on the drawings, connections are to be designed per one of the following:

5.3.3.1. Beam connections are to be designed to resist one half the allowable load for the appropriate span given in the Tables 3-6 through 3-9 in the AISC Manual of Steel Construction. Beam connections will be in accordance with the AISC Manual of Steel Construction. The minimum connection angle length will be half the depth of the beam.

5.3.3.2. Base member design on member capacity in excess of controlling loads on members and connections.

5.3.4 Gusset plates connecting horizontal and vertical bracing to beams and/or columns shall be connected to both adjacent members; where this is not practical, provision shall be made for the moment induced by the eccentricity of the loads to the work point of the connection. Gusset plates for horizontal bracing shall be located within the top two rows of bolts of beam connection angles, unless otherwise noted on the drawing. The minimum thickness of gusset plates in single shear shall be 5/16-inch for bolts in single shear and 3/8-inch for bolts in double shear.

5.3.5 Welded column splices shall be in accordance with the Seismic Provisions.

5.4. Substitutions

5.4.1 Contractor shall submit to the Engineer a complete list of all proposed materials and equipment which differ in any respect from materials and equipment included in these Specifications or on the Drawings. Included in this list shall be all non-conforming materials proposed by contractors and materials which are not specifically mentioned in the Specifications.

5.4.2 If the Contractor is forced to use any other brand or manufacturer of equal quality, appearance, and utility to the product specified due to delivery or availability, they shall request substitution as provided herein. The Engineer shall accept as satisfactory or reject the request for substitution, and his decision shall be final.

5.4.3 Requests for substitutions will be considered only when offered by the Contractor as follows:

5.4.3.1. Submit complete technical data, including drawings and complete performance specifications.

5.4.3.2. Requests for substitutions shall contain not less than the following information in the heading or subject of the transmittal letter:

5.4.3.2.1. Project title and number

5.4.3.2.2. Subject (unit or division of work)

5.4.3.2.3. Drawing and Specification references: Drawing number and detail; Specification section, article, paragraph, subparagraph. Catalog cuts of both the original item and the proposed substitution.

5.4.3.3. If requested by the Engineer or Owner, the Contractor will furnish a written warranty, with adequate safeguards to the Owner, assuring satisfactory performance of a proposed substitute item or system for the applicable warranty period.

5.4.3.4. Contractor shall be responsible for the execution of any changes in other parts of his own work or the work of subcontractors or other contractors caused by substitution, at no additional cost to the Owner.

5.4.3.5. Contractor shall not proceed with any substitution until the Engineer has accepted the substitution, in writing, as satisfactory. Such acceptance shall not relieve the Contractor from complying with the requirements of the Drawings and Specifications.

5.4.3.6. If the Contractor proceeds with a substitution prior to approval, the substitution is subject to replacement by the original material at no additional cost to the Owner.

6. Steel Fabrication and Supply

6.1. Scope

6.1.1 Contractor shall fabricate and supply to the Azusa substation site all material items associated with the 2-breaker switchrack structure. Azusa substation is located in the City of Azusa, California.

6.2. General

6.2.1 It shall be the responsibility of the Contractor, or their designee, to fabricate the steel, clean and galvanize the fabricated steel, load the fabricated steel for shipment using nylon slings and appropriate dunnage materials, and transport the fabricated steel to the specified job site. The steel shall be loaded in a manner in which to prevent damage to the finish paint, the galvanizing, or the fabricated shape. The Owner will provide adequate personnel and equipment to unload the fabricated steel at the job site.

6.2.2 Fabrication shall not commence until the switchrack drawings and data as prepared by the Contractor have been accepted by the Engineer and the Owner.

6.3. Processing

- 6.3.1 All cut, sheared, or burned edges shall be true, smooth, and free of burrs.
- 6.3.2 Bolt holes shall be either punched or drilled. All work shall be done with sharp drills and punches.
- 6.3.3 All holes shall be cylindrical and perpendicular to the principal surface. Slotting of misfabricated holes will not be permitted.
- 6.3.4 Plugging and welding mispunched holes will not be permitted.
- 6.3.5 Straightening of material that has been damaged to the point of impairing the structural integrity, such as material with permanent deformation, bends, twists, or kinks, will not be permitted except when specifically approved in writing by the Owner.
- 6.3.6 Fabricate structural steel in accordance with the applicable provisions of the IEEE 693 Recommended Practice for Design of Substations. Where provisions are not available within IEEE 693, apply AISC Specification for Structural Steel Buildings. Where practical, fabricate and assemble in the shop.
- 6.3.7 Perform high strength shop bolting in accordance with the appropriate ASTM specification. Complete high strength shop bolting before welding.
- 6.3.8 Dimensional tolerances:
- 6.3.9 Overall length of members with both ends milled may vary by 1/32-inch.
- 6.3.10 Overall length of members without milled ends may vary by 1/16-inch for lengths less than 30 feet and 1/8-inch for lengths 30 feet and over.
- 6.3.11 Where structural joints are welded, the detail of the joints, welding technique, weld quality and appearance, and methods for correcting defective welds shall conform to the AISC Code of Standard Practice and AWS D1.1. Welding procedure and sequence shall conform to AWS B2.1. Surfaces to be welded shall be clean and free of rust, paint, or galvanizing. Burned or flame cut edges shall be chipped clean and wire brushed.
- 6.3.12 Structural members are selected from generally available rolled sections; however, if the specified sections are not available, the Contractor shall provide sections with equivalent physical properties after approval by and at no additional cost to the Owner.

6.4. Marking

- 6.4.1 All structures are to be marked to allow for proper alignment during assembly of sections. Improper alignment marks are due cause for rejection.
- 6.4.2 All sections shall be die-stamped before galvanizing with piece mark identification and circled with indelible black ink after galvanizing
- 6.4.3 All sections shall be permanently marked with Steel Fabricator erection marks at such a location that identification will be readily discernible while the structure is lying on the

ground. Match marks are to be stamped into the steel with ½" high numbers not less than 2" nor more than 3" from any field slices, if applicable.

6.4.4 Common match marks are to be located on the structure interior common cut faces of the steel section.

6.4.5 Match marks must be clearly visible and readable upon shipment to the field.

6.5. Assembly and Transportation

6.5.1 Extreme care shall be taken to avoid damage to the coated structure during handling and transportation.

6.5.2 Structures shall be assembled in the shop to such an extent as to insure proper field erection.

6.5.3 Steel shall be completely fabricated and shop assembled into the largest practicable units. All pieces shall be marked (per the drawings and specifications) to facilitate field erection.

6.5.4 The Contractor shall notify the Owner of the estimated time of arrival of each shipment seventy-two (72) hours in advance of anticipated delivery to the destination.

6.5.5 Each shipment shall be accompanied by a checklist of all parts. Bolts, nuts, and any other hardware shall be bagged and securely attached to the structure.

6.5.6 Anchor rods will frequently be required at an earlier date than the structure. The required shipping date for anchor rods will be specified on the schedule.

6.5.7 Structure shall be loaded for shipment with non-abrading dunnage materials and shall be loaded to prevent damage to the finish or the fabricated shape.

6.5.8 Material Safety Data Sheets (MSDS) must be provided for all Hazardous Materials supplied with the equipment. The equipment must not contain detectable amounts of any Carcinogen or Reproductive Toxin (such as asbestos, lead, and polychlorinated biphenyl). Any hazardous material supplied must be labeled in accordance with Title 29 Code of Federal Regulations (CFR), Section 1910.1200-Hazard Communication.

6.6. Rejection of Material

6.6.1 Any material delivered under this specification which, in the opinion of the Owner does not meet the requirements set forth herein with regards to material, fabrication, welding, galvanizing, delivery, shipment, or any other conditions will be repaired or replaced by the Contractor. All expenses incurred, including handling, transportation, dunnage, and all other charges connected with said noncompliance with this specification, will be charged to the Contractor.

6.7. Quality Assurance

6.7.1 Fabricate structural steel members in accordance with AISC specifications.

- 6.7.2 Welders shall be qualified in accordance with AWS D1.1 for each process, position and joint configuration.
- 6.7.3 Fabricator Qualifications: The Company shall submit written documentation of experience in performing the work of this Section prior to award of the Subcontract.
- 6.7.4 The design of member, connections and anchorage shall be under the direct supervision of a Structural Engineer experienced in design of this work and licensed in the State of California. As an alternate, a Civil Engineer experienced in design of this work and licensed in the State of California is acceptable.
- 6.7.5 All welds shall be 100 percent visually inspected for surface flaws such as poor profile, undercut, spatter, arc strikes, cracking, blow holes, or other rejectable flaws. Such inspection shall be conducted prior to final factor inspections and all such rejectable flaws shall be reported to the Owner and corrected prior to final factor inspection.
- 6.8. Finish
- 6.8.1 Prepare structural component surfaces in accordance with the Joint Standard Preparation Standard produced by the Society for Protective Coatings (SSPC SP-6).
- 6.8.2 All structures shall be Hot Dip Galvanized. The top 18 inches of all anchor rods and all nuts and washers shall be galvanized. Any exception shall be subject to the approval of the Owner.
- 6.8.3 Surface preparation and coating shall take place after all cutting, punching, reaming, welding, drilling and cleaning have been completed.
- 6.8.4 Galvanizing
- 6.8.4.1. Galvanize structural steel members in accordance with ASTM A123 and A385 after fabrication.
- 6.8.4.2. Repair damaged galvanizing in accordance with ASTM A780. Material of which galvanizing has been damaged shall be redipped unless in the opinion of the Inspector, that damage is local and can be repaired by applying a coat of zinc dust-zinc oxide paint. The zinc dust-zinc oxide paint shall be in conformance with Federal Specification TT-P-641, Type II. Where such repair is authorized, repair shall conform to ASTM A780.
- 6.8.5 Field Touch-Up and Repair
- 6.8.5.1. For damaged and field-welded metal coated surfaces, clean welds, bolted connections and abraded areas.
- 6.8.5.2. Galvanized surfaces: Galvanized surfaces scratched or otherwise damaged during delivery, unloading, or erection shall be thoroughly cleaned. Apply organic zinc repair paint complying with requirements of ASTM A780. Galvanizing repair paint shall have 95 percent zinc by weight. Thickness of applied galvanizing repair paint shall be not less than coating thickness required by ASTM A123 or A153 as applicable. Touch-up of galvanized surfaces with aerosol spray, silver paint, bright paint, brite paint, or aluminum paints is not acceptable.
- 6.8.5.3. Touch-Up Kits: A touch-up repair kit shall be provided with each order.

Appendix A – Supporting Pictures of Existing Adjacent Switchrack



Picture 1: Existing adjacent switchrack, looking west



Picture 2: Existing adjacent switchrack, looking southeast



Picture 3: Existing adjacent switchrack, closeup looking south