

CITY OF NORTH LITTLE ROCK, ARKANSAS
COMMERCE DEPARTMENT
Mary Beth Bowman, Director
Amy Smith, Assistant Director for Procurement
Crystal Willis, Assistant Purchasing Agent/Admin Sect.



120 Main Street, North Little Rock, AR 72114
P.O. Box 5757 North Little Rock, AR 72119
501-975-8881 Phone
501-975-8885 Fax

INVITATION TO BID

Bid Number: 17-3482 Date Issued: August 9, 2017

Date & Time Bid Opening: Thursday, August 31, 2017 @ 2:00 pm

Eleven (11) Three Phase 15kV Outdoor Circuit Breakers for the McCain 115/13.8kV Substation

Bid Price @ Each: \$ _____

Total Project Bid Price: \$ _____

For technical questions and/or comments, contact Eric Heinrichs, P.E. at 501-992-4086.

If you are obtaining this bid from our website, please be reminded that addendums may occur. It is therefore advisable that you review our listings for attachments including any changes to the bid.

Responses to relevant questions will be posted on the Commerce web page at www.nlr.ar.gov, click on the tab "Business", click on "Bids and Vendors" and then click on "Current Bids". No questions may be submitted after

The City of North Little Rock encourages participation of small, minority, and woman own business enterprises in the procurement of goods, services, professional services, and construction, either as a general contractor or sub-contractor. It is further requested that whenever possible, majority contractors who require sub-contractors, seek qualified small, minority, and woman businesses to partner with them.

EXECUTION OF BID

Upon signing this page, the organization certifies that they have read and agree to the requirements set forth in this bid including conditions set forth and pertinent information requests.

Name of Firm: _____ Phone No.: _____

Tax Identification No.: _____

Business Address: _____

Signature of Authorized Person: _____

Title: _____ Date: _____

Note: FAILURE TO FILL OUT AND SIGN THE INVITATION TO BID SHEET WILL RESULT IN REJECTION OF THE BID.

INVITATION TO BIDDERS

Sealed proposals for eleven (11) Three Phase 15kV outdoor circuit breakers for the McCain 115/13.8 kV Substation will be received by North Little Rock Electric Department at its office in North Little Rock, Arkansas until 2:00 P.M. on 8/31, 2017.

Proposals shall be received by:

Ms. Amy Smith
Commerce Department
North Little Rock Electric Department
120 Main St.
North Little Rock, Arkansas 72114

North Little Rock Electric Department reserves the right to reject any or all bids, to waive any informalities or technicalities therein and to award in the best interest of North Little Rock Electric Department.

No bidder may withdraw a bid for a period of (45) days after the date set for the opening of bids.

INSTRUCTIONS TO BIDDERS

Each bidder shall examine carefully all specifications to familiarize himself with all of the requirements, terms, and conditions thereof. Any information relating to the work furnished by the Owner or others, or failure to make these examinations shall in no way relieve any bidder from the responsibility of fulfilling all of the terms of the contract, if awarded a contract.

The proposal provides for quotation of a price for one or more bid items, which may be lump sum bid prices, alternate bid prices, or a combination thereof and will include delivery times. No payment will be made for items not set up in the proposal, unless otherwise provided by contract amendment.

Bidder is cautioned to verify the completeness of this specification package.

Bids that are sent by U.S. Postal Service or private carrier shall be clearly marked "BID ENVELOPE ENCLOSED". The bid shall be sealed in a separate envelope and shall have the following information, shown on the outside of the envelope.

BID FOR: Eleven (11) Three Phase 15kV Circuit Breakers
McCain 115/13.8 kV Substation

BID DUE: 2:00 P.M. Aug. 31, 2017

OWNER: North Little Rock Electric Department
120 Main St.
North Little Rock, Arkansas 72114

A copy of the sealed bids shall be sent to the Engineer at the address below.

The Engineer for this project is: Fisher Arnold, Inc.
9180 Crestwyn Hills Drive
Memphis TN. 38125

PHONE: (901)748-1811
FAX: (901)748-3115

CONTACT: Marks Atkinson, PE
Project Manager

The Engineer will represent the Owner in all matters pertaining to this project, including but not limited to, answering technical questions of prospective bidders, recommendation of awards, acceptance of shop drawings and similar documents, and approval of invoices prior to payment by the Owner.

Submit all questions about the specifications to the Engineer, in writing. Replies shall be issued to all prospective bidders of record. Questions or clarifications will not be answered within five days of bid opening. Neither the Engineer nor the Owner shall be responsible for oral clarifications.

Bidder shall insert the price for supplying eleven (11) Three Phase 15kV Circuit Breakers as specified herein and under the terms and conditions specified herein in the Unit Price blank on the Supplier's Proposal Form bound herein, and in the Total Price blank on the Supplier's Proposal Form. Bidder shall supply all information requested in the blanks provided in the Supplier's Form for the equipment.

Power Circuit Breaker Specification

1.0 Scope

- 1.1 Quotations shall be in accordance with this specification. Any exceptions shall be clearly noted and described in the proposal.
- 1.2 The breakers shall meet and comply with all specifications as outlined in ANSI/IEEE standards C37.04, C37.06, NEMA SG4 and other standards referenced within.

2.0 Requirements

- 2.1 This specification includes the fabrication and delivery of eleven (11) 15kV power circuit breakers (Qty. 10 – 1200 Ampere continuous, Qty. 1 – 3000 Ampere continuous) to be installed outdoors at an approximate elevation of 256 feet AMSL and will be subject to a maximum ambient temperature of 43 °C and a maximum 24-hour average ambient temperature of 30 °C.
- 2.2 The Supplier shall provide price for supplying eleven (11) power circuit breakers as specified herein and under the terms and conditions specified herein in the total price blank on the Supplier's Proposal Form bound herein. The Supplier shall supply all information requested in the blanks of the Supplier's Proposal Form.
- 2.3 The Supplier shall provide with the proposal a minimum of two copies of information describing the proposed equipment. This shall include, but is not limited to, the following:
 - a. Typical dimensions and weight
 - b. Typical control/operating schematics
 - c. Typical external connections/cabling diagrams
 - d. Installation, testing and commissioning instructions or guidelines
 - e. Operations and maintenance manual, instructions and guidelines
 - f. Breaker electrical specifications
 - g. Breaker environmental specifications
 - h. Manufacturer and type of 15kV bushings
 - i. Manufacturer and type of interrupting mechanism
 - j. Bill of materials: component description, manufacturer, cat. number
 - k. Current transformer curves

- 2.4 Quotation provided by Supplier shall be firm for thirty (30) days after the bid due date. Quotation shall include the cost of delivery to the McCain Substation site located in North Little Rock, Arkansas as specified in section 7.0. Quotation shall include cost of the Supplier's warranty described herein.
- 2.5 The Supplier shall provide in the quotation the time to deliver to the substation site after receipt and acceptance of order from Owner. The Supplier shall acknowledge in writing to the project Engineer that the Owner's purchase order has been received and accepted. The acknowledgment shall include the date of order receipt and acceptance and the expected delivery date.
- 2.6 Drawing Approval
- 2.6.1. The Supplier shall provide with quotation a schedule to supply approval drawings and documents to the Engineer after receipt and acceptance of order. Schedule shall indicate time for review and return to Supplier. Supplier shall submit approval drawings and documents to the Engineer by email. Drawings submitted for approval shall be in AutoCAD 2016 drawing format. The submittal shall consist of, but is not limited to, the following:
- a. Outline dimensional drawings to include weight and center of gravity
 - b. AC and DC schematics
 - c. Control/component layout diagrams
 - d. Internal wiring diagrams
 - e. External connection diagrams
 - f. Nameplate drawings: breaker and current transformers
- 2.6.2 If after review by the Engineer no changes are made to the approval drawings, the drawings shall be marked "APPROVED," signed and dated by the Engineer and returned to the Supplier by email. If submitted approval drawings are not acceptable, a set shall be returned to the Supplier with the required corrections or changes marked on the drawings. Supplier shall submit revised drawings to the Engineer for approval. Corrections or changes made to conform with these specifications shall not be considered "out of scope" nor subject to additional charges.
- 2.6.3 Acceptance and approval of drawings by the Engineer indicates that Engineer deems drawings meet the intent of these specifications only. Acceptance and approval shall not relieve the Supplier of the responsibility for accuracy, proper fit, coordination of work, proper construction, or supply of materials specified but not on drawings.

2.6.4 Requests for modifications to the specifications after order shall be in writing. Drawings submitted for approval do not constitute a request for variance from these specifications. Approval drawings with details that vary from the specifications shall have these details clearly identified and labelled in the drawing. In addition, a written request shall accompany the drawings listing the applicable drawing numbers and explanation for the requested change. Drawings approved by the Engineer that do not follow these instructions do not release the Supplier from meeting the requirements of these specifications.

Four bound copies of the final drawings and electronic files of the drawings in AutoCAD 2016 format shall be provided prior to the shipment of the power circuit breakers.

2.7 Invoices

2.7.1. Invoices for equipment will be submitted only after all items have been received and accepted by the Owner. The Owner will pay no more than 90% of the bid price until the Supplier's obligations have been completed. Under no circumstances will the time frame for completion of these obligations exceed 30 days from the date of shipment without the specific approval of the Owner.

2.8 Warranties

2.8.1. All materials and equipment supplied under this specification will be warranted to the Owner against failure due to the Supplier's design or to defects in workmanship for a period of one (1) year after the power circuit breaker is first energized by the Owner or one and one half (1-1/2) years from the date of delivery, whichever comes first. Should any failure to conform to this warranty occur within the specified time, the manufacturer will correct such non-conformity at no cost to the Owner.

3.0 Ratings

3.1	Voltage Rating	15 kV
3.1	Frequency	60 Hz
3.3	Number of phases	Three
3.4	Basic Impulse Level	110 kV
3.5	Continuous Current	
	3.5.1. 1200 Ampere Breaker	1200 amps
	3.5.2. 3000 Ampere Breaker	3000 amps
3.6	Interrupting Rating	20kA
3.7	Interrupting Time	3 cycles

3.8	Mechanism control voltage	
	3.8.1. Close	125 Volts DC
	3.8.2. Trip	125 Volts DC
	3.8.3. Heater circuit	120 volts AC
3.9	Bushings	
	3.9.1. 1200 Ampere Breakers	15 kV class, 1200 amps, ANSI #70 gray
	3.9.2. 3000 Ampere Breaker	15 kV class, 3000 amps, ANSI #70 gray
3.10	Bushing terminal connections	NEMA 4 hole pad
3.11	Bushing current transformers	
	3.11.1 1200 Ampere Breakers	Six (6), one each, on bushings 1-6, 1200/5 Multi ratio, relay accuracy (C400)
	3.11.2 3000 Ampere Breaker	Six (6), one each, on bushings 1-6, 3000/5 Multi ratio, relay accuracy (C400)

4.0 Requirements

- 4.1 The interrupting medium shall be Vacuum.
- 4.2 The operating mechanism shall be spring stored energy or a magnetic actuator type operator.
- 4.3 The exterior paint color for the breaker shall be ANSI #70 gray. The interior paint color shall be white.
- 4.4 There shall be two (2) ground terminal pads on the steel frame suitable for connection to #2/0 to #4/0 copper terminals. Standard 2-Hole connectors shall be used.
- 4.5 The breaker shall have an externally operated, manual, emergency trip device.
- 4.6 The breaker shall have an adjustable substation mounting frame suitable to obtain 10' vertical clearance to live parts from the breaker foundation.
- 4.7 The breaker shall contain fuses in the control power circuit, receptacle, light and the heater circuit.
- 4.8 The cabinet heater control shall be thermostatically controlled.
- 4.9 A GFCI receptacle and a cabinet light controlled by door switch shall be installed.
- 4.10 The bushing CT's shall be pre-wired to shorting type terminal blocks marked to identify location and ratio. Barrier type terminal blocks shall be

used for customer control connections. All control wiring shall terminate with insulated ring type connectors.

- 4.11 Control wiring shall be copper, minimum 14 AWG for all circuits, except for CT circuits, which shall be minimum 12 AWG.
- 4.12 An auxiliary switch assembly which follows breaker operation shall be installed with a minimum of 8 normally open and 8 normally closed contacts for customer use.
- 4.13 The breakers shall have standard NEMA accessories.
- 4.14 The breakers control mechanism shall provide alarms for all critical conditions. At a minimum, the following alarms will be provided:
 - 4.14.1 Loss of AC Voltage
 - 4.14.2 Spring Charge alarm (if applicable)
- 4.15 Breaker controls and external cabling shall be easily accessible by operations and maintenance personnel standing on the breaker foundation.
- 4.16 The breakers will be shipped with stud to 4-hole NEMA Pad connectors, one for each bushing.

5.0 Protective Relays, Meters, and Controls

- 5.1 Protective relaying shall be in circuit breakers with 1200 Ampere continuous rating. Control panel layout and materials shall be as indicated in Section 8.
- 5.2 Protective relaying shall not be installed in the 3000 Ampere continuous rated circuit breaker. Breaker shall be equipped with an Electroschwitch Series 24 breaker control switch and Local/Remote selector switch.
- 5.3 Metering will not be in the circuit breakers.
- 5.4 Breaker control cabinet to include a Corning Single-Panel Housing (SPH) for fiber management and splice holder.

6.0 Testing

- 6.1 The breakers shall be tested per the requirements of ANSI/IEEE C37.09.

6.2 Test reports shall be submitted to the Engineer at or before the scheduled delivery of the breakers.

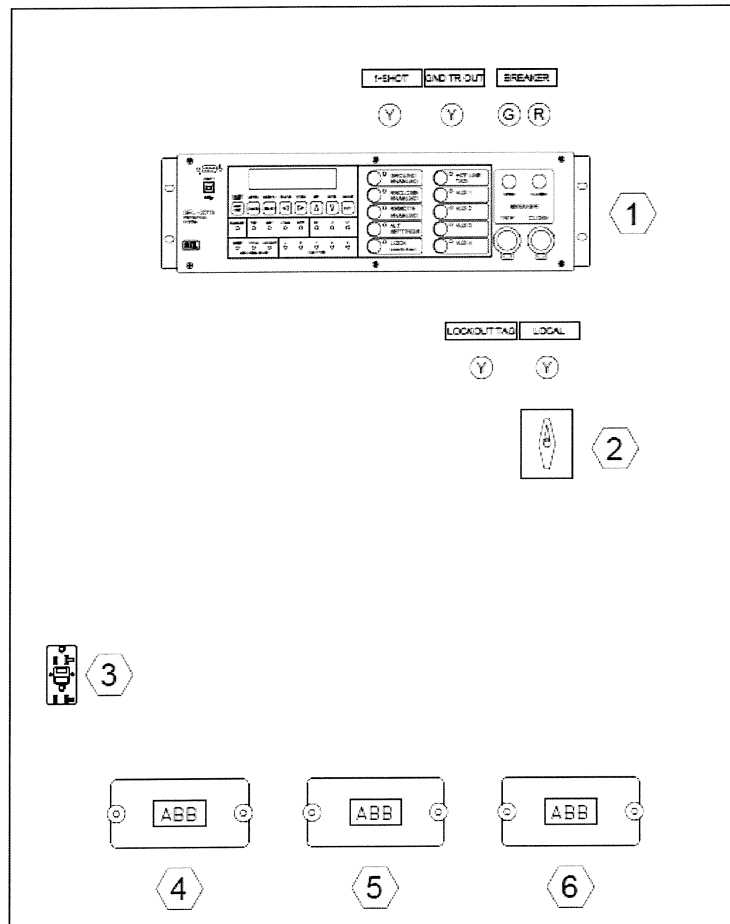
7.0 Shipping

7.1 Shipping to be F.O.B. destination

7.1.1 Destination is to be the McCain Substation located at 4500 43rd Street, North Little Rock, Arkansas. Off-loading will be by others.

7.1.2 Delivery shall be between 9:00 AM and 3 PM, Monday thru Friday. Owner shall be notified 24 hours prior to delivery.

8.0 Control Panel Layout/Materials



15 kV BREAKER CONTROL PANEL LAYOUT
NOT TO SCALE

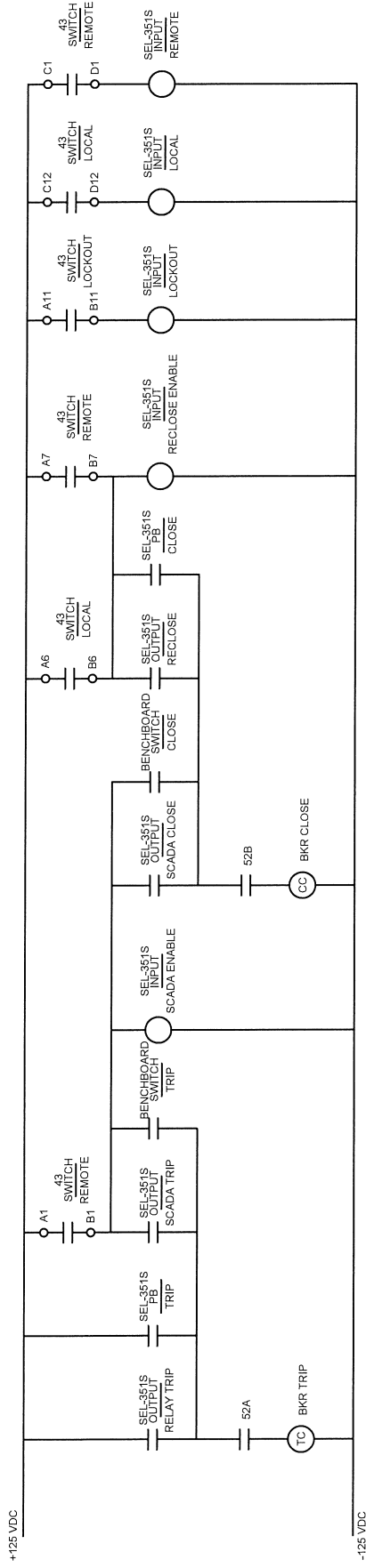
8.1 Breaker Control Panel Material Items

- 1 SEL-351S Relay, MOT 0351S7XHE3H5421, Key 7112
- 2 Electroswitch Type W2 Control Switch
- 3 20 Amp GFCI Receptacle. 120 VAC
- 4 Test Switch, Relay Currents, ABB FT-1, 10 Pole, 10 Currents, Screw Terminals, Black Cover
- 5 Test Switch, Relay Voltages, I/O, ABB FT-1, 10 Pole, 10 Potentials, Screw Terminals, Black Cover
- 6 Test Switch, Relay I/O, ABB FT-1, 10 Pole, 10 Potentials, Screw Terminals, Black Cover
- 7 Panel Indicating Lights, LEDTRONICS RPLH16, 130 VDC, Red, Green, Yellow, As Required

- 8 Panel Device Labels, As Required For Each Device, Phenolic, Black Background, White Lettering

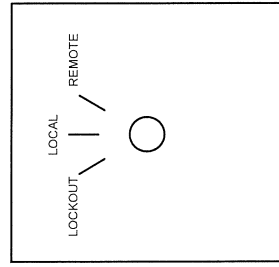
9.0 *Simplified Control Schematics*

Simplified control schematics follow on last page.



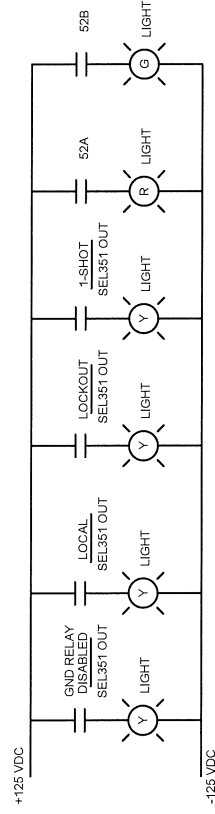
SIMPLIFIED BREAKER CONTROL CIRCUIT

43 CONTROL SWITCH, TYPE W2



OVAL FIXED CONTROL HANDLE

CONTACT	LOCKOUT	LOCAL	REMOTE	FUNCTION
A11-B11	X			POSITION STATUS TO SEL-351S
A12-B12		X		
A1-B1			X	SCADA/BENCHBOARD ENABLE
A5-B5	X			
A6-B6		X		PARALLEL WITH A7-B7
A7-B7			X	RELAY BKR CLOSE ENABLE
C11-D11	X			
C12-D12		X		POSITION STATUS TO SEL-351S
C1-D1			X	POSITION STATUS TO SEL-351S
C5-D5	X			
C6-D6		X		
C7-D7			X	



SIMPLIFIED INDICATING LIGHT CIRCUIT

Smith, Amy

From: Heinrichs, Eric
Sent: Thursday, July 27, 2017 9:05 AM
To: Smith, Amy
Subject: 2 more small bids
Attachments: 15kV Breaker Bid Spec.pdf; 115kV Circuit Switcher Bid Spec.pdf

Amy,

I have two more small bids that I need to put out. See attached. I need both of these open for 3 weeks' time. Let me know when you can get them posted.

Thank you, thank you.

Thanks,
Eric Heinrichs, P.E.

System Electrical Engineer
North Little Rock Electric Department
Office: (501) 992 - 4086
Fax: (501) 992 - 4002
eheinrichs@northlittlerock.ar.gov

**TERMS AND STANDARD CONDITIONS
CITY OF NORTH LITTLE ROCK, ARKANSAS**

PLEASE READ CAREFULLY

1. When submitting an "Invitation to Bid," the bidder warrants that the commodities covered by the bid shall be free from defects in material and workmanship under normal use and service. In addition, bidder must deliver new commodities of the latest design and model, unless otherwise specified in the "Invitation to Bid."
2. Prices quoted are to be net process, and when an error is made in extending total prices, the City may accept the bid for the lesser amount whether reflected by extension or by the correct multiple of the unit price.
3. Discounts offered will be taken when the City qualifies for such. The beginning date for computing discounts will be the date of invoice or the date of delivery and acceptance, whichever is later.
4. When bidding other than the brand and/or model specified in the "Invitation to Bid," the brand and/or model number must be stated by that item in the "Invitation to Bid," and descriptive literature be submitted with the bid.
5. The City reserves the right to reject any and all bids.
6. The Purchasing office reserves the right to award items, all or none, or by line item(s).
7. Quality, time and probability of performance may be factors in making an award.
8. Bid quotes submitted will remain firm for 30 calendar days from bid opening date; however, the prices may remain firm for a longer period of time if mutually agreeable between bidder and the Department of Commerce and Governmental Relations.
9. Bidder must submit a completed signed copy of the front page of the "Invitation to Bid" and must submit any other information required in the "Invitation to Bid."
10. In the event a contract is entered into pursuant to the "Invitation to Bid," the bidder shall not discriminate against any qualified employee or qualified applicant for employment because of race, sex, color, creed, national origin or ancestry. The bidder must include in any and all subcontracts a provision similar to the above.
11. Sales or use tax is not to be included in the bid price, but is to be added by the vendor to the invoice billing to the City. Although use tax is not to be included in this bid, vendors are to register and pay tax direct to the Arkansas State Revenue Department.
12. Prices quoted shall be "Free on Board" (F.O.B.) to destination at designated facility in North Little Rock. Charges may not be added after the bid is opened.
13. In the event of two or more identical low bids, the contract may be awarded arbitrarily or for any reason to any of such bidders or split in any proportion between them at the discretion of the Department of Commerce and Governmental Relations.
14. Specifications furnished with this Invitation are intended to establish a desired quality or performance level, or other minimum dimensions and capacities, which will provide the best product available at the lowest possible price. Other than designated brands and/or models approved as equal to designated products shall receive an equal consideration.
15. Samples of items when required, must be furnished free, and, if not called for within 30 days from date of bid opening, will become property of the City.
16. Bids will not be considered if they are: 1. Submitted after the bid's opening time. 2. Submitted electronically or faxed (unless authorized by Purchasing Agent).
17. Guarantees and warranties should be submitted with the bid, as they may be a consideration in making an award.
18. **CONSTRUCTION**
 - A. Contractor is to supply the City with evidence of having and maintaining proper and complete insurance, specifically Workman's Compensation Insurance in accordance with the laws of the State of Arkansas, Public Liability and Property Damage. All premiums and cost shall be paid by the Contractor. In no way will the City be responsible in case of accident.
 - B. When noted, a Certified check or bid bond in the amount of 5% of total bid shall accompany bid.
 - C. A Performance Bond equaling the total amount of any bid exceeding \$10,000.00 must be provided for any contract for the repair, alteration or erection of any public building, public structure or public improvement (pursuant to Act 351 or 1953 as amended by Act 539 of 1979).
19. **LIQUIDATED DAMAGES** - Liquidated damages shall be assessed beginning on the first day following the maximum delivery or completion time entered on this bid form and/or provided for by the plans and specifications.
20. **AMBIGUITY IN BID** - Any ambiguity in any bid as the result of omission, error, lack of clarity or non-compliance by the bidder with specifications, instructions, and all conditions of bidding shall be construed in the light most favorable to the City.
21. The bid number should be stated on the face of the sealed bid envelope. If it is not, the envelope will have to be opened to identify.
22. Whenever a bid is sought seeking a source of supply for a specified period of time for materials and services, the quantities of usage shown are estimated ONLY. No guarantee or warranty is given or implied by the participants as to the total amount that may or may not be purchased from any resulting contracts. These quantities are for the bidders information ONLY and will be used for tabulation and presentation of bid and the participant reserves the right to increase or decrease quantities as required.
23. The City of North Little Rock reserves the right to reject any and all bids, to accept in whole or in part, to waive any informalities in bids received, to accept bids on materials or equipment with variations from specifications in those cases where efficiency of operation will not be impaired, and unless otherwise specified by the bidder, to accept any item in the bid. If unit prices and extensions thereof do not coincide, the City of North Little Rock may accept the bid for the lesser amount whether reflected by the extension or by the correct multiple of the unit price.
24. Additional information or bid forms may be obtained from:
COMMERCE DEPARTMENT, 120 Main Street, P.O. Box 5757, North Little Rock, Arkansas 72119 (501) 975-8881 www.nlr.ar.gov

Bidding documents must be submitted on or before the bid's opening date and time. Unless noted, sealed bids must be submitted to the Commerce Department at 120 Main Street, North Little Rock, AR 72114 or PO Box 5757, North Little Rock, AR 72119