

City Council Agenda Items
and
Contracts, Leases or Agreements

12/4/2012

City Council Meeting Date
Agenda Items Only

Shannon Jones
Submitted By

Utilities
Division

Utilities
Department

Action Required:

Approval of Bid #12-75 for a construction contract with Insituform Technologies, LLC for sanitary sewer main line and service lateral cured in place lining, in the amount of \$330,000.00.

\$ 330,000

Cost of this request

\$ 4,097,341

Category / Project Budget

Sanitary Sewer Rehabilitation

Program Category / Project Name

5400.5700.5815.00

Account Number

\$ 1,001,178

Funds Used to Date

Water and Wastewater

Program / Project Category Name

02017.0013

Project Number

\$ 3,096,163

Remaining Balance

Water and Sewer

Fund Name

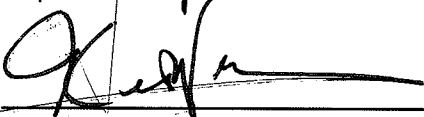
Budgeted Item

Budget Adjustment Attached


Department Director

8 Nov 12
Date

Previous Ordinance or Resolution # _____


City Attorney

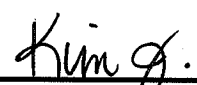
11-15-12
Date


Original Contract Date: _____

Original Contract Number: _____



Finance and Internal Services Director

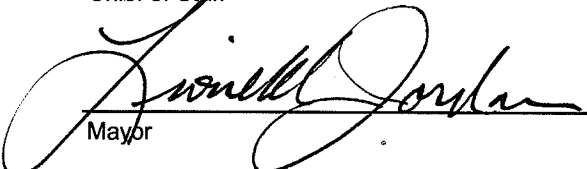
11-15-2012
Date

Received in City Clerk's Office 11-14-12 P03:25 RCVD



Chief of Staff

11-15-12
Date

Received in Mayor's Office


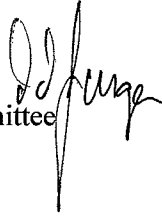

Mayor

11/16/12
Date

Comments:

To: Fayetteville City Council

Thru: Mayor Lioneld Jordan
Don Marr, Chief of Staff
David Jurgens, Utilities Director
Fayetteville Water and Sewer Committee



From: Shannon Jones, Utilities Engineer

Date: November 8, 2012

Subject: Approval of construction contract with Insituform Technologies, LLC for sanitary sewer main line and service lateral cured in place lining.

RECOMMENDATION

City Administration recommends approval of Bid #12-75 for a construction contract with Insituform Technologies, LLC for sanitary sewer main line and service lateral cured in place lining, in the amount of \$330,000.00.

BACKGROUND

The direct contracting with a cured in place pipe contractor allows City of Fayetteville to execute its sanitary sewer rehabilitation program effectively and efficiently. It is effective as the administrative delays and costs are minimized due to the annual contract and pre-established pricing. Pipes being lined under this contract are either identified by City forces through normal maintenance operations or by consultants executing Sanitary Sewer Evaluation Studies. Either way, engineering and administrative costs are held to a bare minimum as formal plans and specifications are not required. This work is an integral part of the City's ongoing program to maintain its sewer system in the most long-term yet cost effective fashion, with cured in place linings being by far the lowest cost strategy for applications where it is appropriate.

The bid schedule includes specific unit prices for various items of work; with the sanitary sewer rehabilitation program then using the pricing to complete the annual rehabilitation program. The exact needs of each rehabilitation activity cannot be explicitly defined until the final design is completed, hence the unit price bid schedule to correlate costs to project scopes. The work order releases for the previous term maintenance contract averaged \$330,000.00 per year.

DISCUSSION

The City received three responsive bids on November 7, 2012.

<u>Contractor</u>	<u>Total</u>
Insituform Technologies	\$ 313,251.50 (low bid)
Suncoast Infrastructure	\$ 391,600.00
SAK Construction	\$ 537,875.00

Insituform Technologies has completed many sewer rehabilitation projects in Fayetteville, including the 2002 – 2006, and 2008 – 2012 maintenance term contracts. All jobs have completed to the City's satisfaction.

The contract is set up to have as many as five annual terms from 2013 through 2017, with restrictions on the unit price increases per year. While there is no obligation to execute future terms of the contract, this technique allows the City to get the best possible prices, increases our flexibility, and greatly reduces the administrative demands involved. Each subsequent annual term would go through the City Council for approval.

BUDGET IMPACT

Funds are available within the Fiscal Year 2012 Sanitary Sewer Rehabilitation Project.

RESOLUTION NO. _____

A RESOLUTION TO APPROVE BID #12-75 FOR A CONSTRUCTION CONTRACT WITH INSITUFORM TECHNOLOGIES, LLC FOR SERVICE LATERAL AND SEWER MAIN CURED IN PLACE LINING IN THE AMOUNT OF \$330,000.00.

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF FAYETTEVILLE, ARKANSAS:

Section 1: That the City Council of the City of Fayetteville, Arkansas hereby approves Bid #12-75 for a construction contract with Insituform Technologies, LLC for service lateral and sewer main cured in place lining in the amount of \$330,000.00 and authorizes Mayor Jordan to sign the construction contract.

PASSED and APPROVED this 4th day of December, 2012.

APPROVED:

ATTEST:

By: _____
LIONELD JORDAN, Mayor

By: _____
SONDRA E. SMITH, City Clerk/Treasurer



BID: 12-75
DATE: 11/07/12
TIME: 2:00 PM
CITY OF FAYETTEVILLE

Bid 12-75, Construction - 2013 Sanitary Sewer Main Line & Service Lateral Lining

BIDDER		TOTAL COST
1	Insituform Technologies, LLC.	\$ 313,251.50
2	SAK Construction, LLC.	\$ 537,875.00
3	Suncoast Infrastructure, Inc.	\$ 391,600.00

*NOTICE: Bid award is contingent upon vendor meeting minimum specifications and formal authorization by City officials.

CERTIFIED:

P. Vice
P. VICE, PURCH MGR

Julie Paladino
WITNESS

11/07/12
DATE

Detailed Bid Tabulation - 2013 Sanitary Sewer Main Line and Service Lateral Lining, Cured in Place Pipe Method

Item No.	Item Description			Insituform Technologies, LLC		SAK Construction, LLC		Suncoast Infrastructure, Inc.	
		Approx. Qty.	Unit	Unit Price In Figures	Total	Unit Price In Figures	Total	Unit Price In Figures	Total
1	6" x 4.5mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place	2500	LF	\$ 37.00	\$ 92,500.00	\$ 48.00	\$ 120,000.00	\$ 30.00	\$ 75,000.00
2	8" x 6.0mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place	2000	LF	\$ 36.00	\$ 72,000.00	\$ 34.50	\$ 69,000.00	\$ 28.00	\$ 56,000.00
3	10" x 6.0mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place	500	LF	\$ 36.00	\$ 18,000.00	\$ 38.50	\$ 19,250.00	\$ 33.00	\$ 16,500.00
4	12" x 6.0mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place	500	LF	\$ 42.00	\$ 21,000.00	\$ 56.00	\$ 28,000.00	\$ 38.00	\$ 19,000.00
5	15" x 7.5mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place	500	LF	\$ 54.00	\$ 27,000.00	\$ 66.75	\$ 33,375.00	\$ 65.00	\$ 32,500.00
6	18" x 9mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place	500	LF	\$ 68.00	\$ 34,000.00	\$ 101.00	\$ 50,500.00	\$ 85.00	\$ 42,500.00
7	Internal reinstatement of Service Laterals	150	EA	\$ 0.01	\$ 1.50	\$ 100.00	\$ 15,000.00	\$ 50.00	\$ 7,500.00
8	Trenchless rehabilitation by CIPP of existing 4" Service Lateral	30	EA	\$ 1,350.00	\$ 40,500.00	\$ 3,300.00	\$ 99,000.00	\$ 3,345.00	\$ 100,350.00
9	Standard Mobilization (within 15 working days)	2	EA	\$ 1,000.00	\$ 2,000.00	\$ 24,500.00	\$ 49,000.00	\$ 7,500.00	\$ 15,000.00
10	Emergency Mobilization (within 3 working days)	1	EA	\$ 2,000.00	\$ 2,000.00	\$ 36,750.00	\$ 36,750.00	\$ 9,000.00	\$ 9,000.00
11	CIPP Point Repair, 6" - 12" Diameter, 10 LF	5	EA	\$ 850.00	\$ 4,250.00	\$ 3,600.00	\$ 18,000.00	\$ 3,650.00	\$ 18,250.00
	Total Bid				\$ 313,251.50		\$ 537,875.00		\$ 391,600.00

4.0 BIDDER'S PROPOSAL

4.1 ITEMIZED DESCRIPTION OF BID PRICING

TO: City of Fayetteville
 Fayetteville, Arkansas

The undersigned bidder, having examined the specifications and contract documents, and being fully advised as to the extent and character of the work, propose to furnish all equipment and to perform all labor and work necessary for the completion of the work described by and in accordance with the specifications and contracts for the following prices to wit. The unit prices shall be written in words on each line below the item description. The unit price in figures and extended total in figures shall be written on the lines provided. The total bid amount shall be written in both figures and words on the lines provided.

<u>Item No.</u>	<u>Item Description</u>	<u>Approx. Qty.</u>	<u>Unit</u>	<u>Unit Price In Figures</u>	<u>Total</u>
1	6" x 4.5mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place				
	<u>Thirty seven and ^{no}/₁₀₀ dollars</u>	2500	LF	<u>\$ 37.00</u>	<u>\$ 92,500.00</u>
2	8" x 6.0mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place				
	<u>Thirty six and ^{no}/₁₀₀ dollars</u>	2000	LF	<u>\$ 36.00</u>	<u>\$ 72,000.00</u>
3	10" x 6.0mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place				
	<u>Thirty six and ^{no}/₁₀₀ dollars</u>	500	LF	<u>\$ 36.00</u>	<u>\$ 18,000.00</u>
4	12" x 6.0mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place				
	<u>Forty two and ^{no}/₁₀₀ dollars</u>	500	LF	<u>\$ 42.00</u>	<u>\$ 21,000.00</u>

<u>Item No.</u>	<u>Item Description</u>	<u>Approx. Qty.</u>	<u>Unit</u>	<u>Unit Price In Figures</u>	<u>Total</u>
5	15" x 7.5mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place				
	<u>Fifty four and ¹⁰⁰/₁₀₀ dollars</u>	500	LF	<u>\$ 54.00</u>	<u>\$ 27,000.00</u>
6	18" x 9mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place				
	<u>Sixty eight and ¹⁰⁰/₁₀₀ dollars</u>	500	LF	<u>\$ 68.00</u>	<u>\$ 34,000.00</u>
7	Internal reinstatement of Service Laterals				
	<u>Zero and ⁰¹/₁₀₀ dollars</u>	150	EA	<u>\$ 0.01</u>	<u>\$ 1.50</u>
8	Trenchless rehabilitation by CIPP of existing 4" Service Lateral				
	<u>One thousand three hundred fifty and ¹⁰⁰/₁₀₀ dollars</u>	30	EA	<u>\$ 1,350.00</u>	<u>\$ 40,500.00</u>
9	Standard Mobilization (within 15 working days)				
	<u>One thousand and ¹⁰⁰/₁₀₀ dollars</u>	2	EA	<u>\$ 1,000.00</u>	<u>\$ 2,000.00</u>
10	Emergency Mobilization (within 3 working days)				
	<u>Two thousand and ¹⁰⁰/₁₀₀ dollars</u>	1	EA	<u>\$ 2,000.00</u>	<u>\$ 2,000.00</u>
11	CIPP Point Repair, 6" - 12" Diameter, 10 LF				
	<u>Eight hundred fifty and ¹⁰⁰/₁₀₀ dollars</u>	5	EA	<u>\$ 850.00</u>	<u>\$ 4,250.00</u>

TOTAL BID AMOUNT \$ 313,251.50

Three hundred thirteen thousand two hundred fifty one dollars and fifty cents

(In Writing)

The undersigned understands that this bid is for a term maintenance contract for the rehabilitation of sanitary sewer mainlines throughout Fayetteville, Arkansas and that the City of Fayetteville here may choose to purchase more, less, or none of the rehabilitation, depending upon its needs. The City of Fayetteville is under no obligation to purchase a minimum amount of any item awarded. This contract is generally for miscellaneous and unidentified rehabilitation of sanitary sewer mains and service connections using the cured-in-place pipe method.

The bidder understands that the City of Fayetteville reserves the right to reject any or all bids, and to waive informalities in the bidding.

The undersigned further agrees that the proposal guaranty may be retained by the City of Fayetteville, Arkansas, provided the undersigned is one of the lowest and most advantageous bidders, and that said proposal guaranty shall remain with the City of Fayetteville until the contract has been signed, and the bond required for the faithful performance of the contract has been made by one of the lowest responsible bidders; otherwise, proposal guaranty may be obtained from the City of Fayetteville after forty-eight hours from the time of opening of the bids.

The undersigned hereby declares that he has had sufficient time to make all test and investigations to arrive at an intelligent estimate of the cost of doing the work, and has carefully examined the specifications and documents relating to the work covered by his bid or bids, that he agrees to do the work, and that no representation made by the City of Fayetteville are in any sense a warranty, but are mere estimates for guidance of the CONTRACTOR.

Upon receipt of notice of the acceptance of the bid, we will execute the formal contract attached in quintuplicate, within ten days, and will deliver a Surety Bond for the faithful performance of the contract, and such other bonds as may have been required in the specifications. The bid security attached in the sum of 5% of the greatest amount of the total bid is (\$5%) is to become the property of the City of Fayetteville if a cashier's check, and if a bond, the principal amount shall be paid to the City of Fayetteville, in the event the contract and bond are not executed within the time set forth, and to be considered as liquidated damages because the delay and additional work caused thereby are incapable of accurate ascertainment.

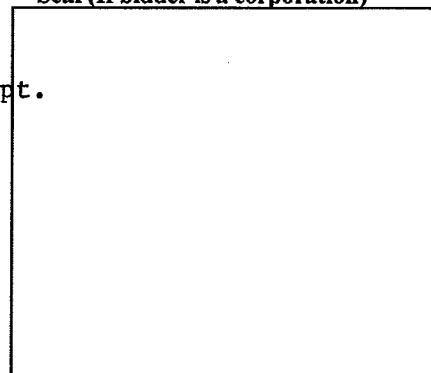
RESPECTFULLY SUBMITTED

Insituform Technologies, LLC
Bidder


SIGNATURE AND TITLE

H. Douglas Thomas
V.P.-Global Procurement/Ops. Suppt.
SIGNATURE AND TITLE

Seal (If bidder is a corporation)



Business Address 17988 Edison Avenue
Chesterfield, MO 63005

Telephone Number 636-530-8000

FAX Number 636-530-0751

Arkansas Contractors License Number 0072030413

NOTE: DO NOT DETACH BID FROM OTHER PAPERS BOUND IN THIS DOCUMENT. Fill Bid Form in with ink and submit complete with all other papers bound in this document

INSITUFORM TECHNOLOGIES, LLC
Assistant Secretary's Certificate

The undersigned, being the Assistant Secretary of Insituform Technologies, LLC, a Delaware limited liability company, hereby certifies that:

1. The following is a true and correct excerpt from the Limited Liability Company Agreement of the Company:

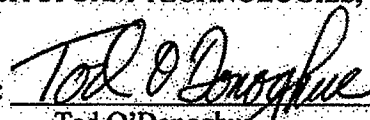
Appointments by the President. The President of the Company may from time to time appoint officers of the Company's operating divisions, and such contracting and attesting officers of the Company as the President may deem proper, who shall have such authority, subject to the control of the Board of Managers, as the President may from time to time prescribe.

2. The President of the Company has, pursuant to the above authority, duly appointed H. Douglas Thomas, Vice President – Global Procurement/Operations Support, and has appointed Joann Smith, Denise L. Carroll, Debra Jasper, Jana Lause and Diane Partridge as Contracting and Attesting Officers of the Company. Each of the foregoing have been fully authorized and empowered by the President of the Company (i) to certify and to attest the signature of any officer of the Company, (ii) to enter into and to bind the Company to perform pipeline rehabilitation activities of the Company and all matters related thereto, including the maintenance of one or more offices and facilities of the Company, (iii) to execute and to deliver documents on behalf of the Company, and (iv) to take such other action as is or may be necessary and appropriate to carry out the project, activities and work of the Company.

IN WITNESS WHEREOF, I have hereunto affixed my name as Assistant Secretary this 1st day of January, 2012.

INSITUFORM TECHNOLOGIES, LLC

By:



Tod O'Donoghue
Assistant Secretary

5.0 CONTRACT AND BOND DOCUMENTS

5.1 AGREEMENT

2013 ANNUAL SANITARY SEWER MAINLINE AND SERVICE LATERAL REHABILITATION, CURED IN PLACE PIPE METHOD

THIS AGREEMENT, made this _____ day of _____, 2012, by and between the City of Fayetteville, Arkansas, and

Insituform Technologies, LLC

doing business as a Corporation, hereinafter called "Contractor",

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The Contractor will commence and complete the projects selected for rehabilitation under this Term Maintenance Contract at the City of Fayetteville, Arkansas and all incidental and ancillary work in accordance with the conditions and at the prices stated in the Bid Proposal which are a part of these Contract Documents attached hereto and made a part hereof.
2. The Contractor will furnish all materials, supplies, tools, equipment, labor, and other services necessary for the construction and completion of the projects selected for rehabilitation.
3. The Contractor will commence the work required under this term maintenance contract for the rehabilitation of sanitary sewer mainlines throughout Fayetteville, Arkansas in a timely manner as projects are selected. The Contractor shall furnish City of Fayetteville a timeline for each project as preparation for the work begins.
4. The timeline for this contract shall end December 31, 2013. Upon approval of the City of Fayetteville, the contract may be extended on a yearly basis for up to four years.
5. The Contractor shall be entitled to receive up to Three Hundred and Thirty Thousand Dollars (\$330,000). City of Fayetteville is under no obligation to purchase a minimum amount of any item awarded and City of Fayetteville may choose to purchase more, less, or none of the rehabilitation, depending upon its needs. This contract is generally for miscellaneous and unidentified rehabilitation of sanitary sewer mains and service connections using the cured-in-place pipe method. The City of Fayetteville will pay the Contractor in the manner and at such times as set forth in the General Conditions such amounts, as required by the Contract Documents.
6. The Contractor agrees to perform the work described in the Contract Documents and comply with the terms therein for the amounts shown in the Bid Proposal.
7. The term "Contract Documents" means and includes the Advertisement for Bids, Information for Bidders, Technical Specifications, Bid Proposal, Agreement, General Conditions, Performance Bond, Payment Bond, Notice of Award, Notice to Proceed, Change Orders and Addenda prepared or issued by the City of Fayetteville.
8. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.
9. It is mutually agreed that should it appear to the City of Fayetteville or to the Authorized Agent in charge, at any time during the existence of this Contract, that the sureties on the Contractor's bond have become insolvent, bankrupt, or otherwise financially unable to protect the City of Fayetteville under the terms of the Contract, the City of Fayetteville may demand the Contractor furnish additional security in some approved surety company satisfactory to the City of Fayetteville. The acts of the City of Fayetteville or the Agent with reference to demanding new or additional security shall never be construed to relieve the original sureties of their obligations under the contract, or to relieve the Contractor. The City of Fayetteville may stop performance under the Contract until additional security has been furnished by the Contractor, and the City of Fayetteville shall in no case be liable to the Contractor on account thereof. In the event of the refusal or failure of the Contractor to comply with the demands of the City of

Fayetteville with reference to furnishing additional security, the City of Fayetteville may exercise its right as provided herein to stop all payments under the Contract and to arrange for completion of the Contract requirements obligating the Contractor for any and all additional expenses incurred.

10. Changes, modifications, or amendments in scope, price or fees to this contract shall not be allowed without a prior formal contract amendment approved by the Mayor and the City council **in advance** of the change in scope, cost or fees.
11. City of Fayetteville contracts and documents prepared while performing City of Fayetteville contractual work are subject to the Arkansas Freedom of Information Act. If a Freedom of Information Act request is presented to the City of Fayetteville, the (contractor) will do everything possible to provide the documents in a prompt and timely manner as prescribed in the Arkansas Freedom of Information Act (A.C.A. §25-19-101 et. seq.). Only legally authorized photocopying costs pursuant to the FOIA may be assessed for this compliance.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in three (3) counterparts, each of which shall be deemed an original on the date first above written.

THE CITY OF FAYETTEVILLE

By: _____
Title: Mayor
113 West Mountain Street
Fayetteville, AR 72701

Attest: _____
Title: _____

CONTRACTOR:

By: _____
Title: _____
Company _____
Address _____

*Attest: _____
Title: _____
(Corporate Seal)

*If a corporation, the Secretary of the Corporation should Attest.

BID DOCUMENTS AND SPECIFICATIONS
CONTRACT FOR 2013 SANITARY SEWER MAIN
LINE AND SERVICE LATERAL LINING
CURED IN PLACE PIPE METHOD



City of Fayetteville, Arkansas

October, 2012



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1.0 INVITATION TO BID

CITY OF FAYETTEVILLE INVITATION TO BID

BID 12-75, Construction – 2013 Sanitary Sewer Main Line & Service Lateral Lining

The City of Fayetteville is accepting sealed bids from properly licensed contractors for a term contract for sewer rehabilitation using cured in place pipe lining method. The scope of work can potentially include but is not limited to, up to an estimated 6,500' of 6" - 18" sanitary sewer main line pipe, 30 each 4" service laterals, 5 cured in place point repairs, and 150 internally reinstated connections on the 6"-18" mains preparation for various locations in Fayetteville, Arkansas. Questions should be addressed to Andrea Foren, Purchasing Agent at aforen@ci.fayetteville.ar.us or by calling (479) 575-8220.

All bids shall be submitted in a sealed envelope or package & should be labeled "Bid 12-75". All bids shall be received by **Wednesday, November 07, 2012 before 2:00 PM, local time** at the City of Fayetteville, Purchasing Division address listed below. No late bids shall be accepted. The City of Fayetteville shall not be responsible for lost or misdirected bids.

City of Fayetteville
Purchasing Division – Room 306
113 West Mountain Street
Fayetteville, AR 72701

Bidding documents and plans shall be obtained by the City of Fayetteville Purchasing Division electronically. No partial sets shall be issued. Plans may also be reviewed only at the Fayetteville Purchasing Division.

All vendors intending on bidding SHALL register as a plan holder by notifying Andrea Foren, via e-mail. When registering as a plan holder, vendors shall submit primary contact information including name of contractor, primary contact, phone number, fax number, and physical address. **FAILURE TO REGISTER AS A PLAN HOLDER CAN RESULT IN YOUR BID BEING REJECTED.**

All bids shall be accompanied by a five percent (5%) corporate bid bond or cashier's check drawn upon a bank or trust company doing business in the State of Arkansas. A one hundred percent (100%) performance and payment bond is required with the contract awarded and shall be file marked by the Washington County Circuit Clerk's Office upon receipt to the City. A State of Arkansas Contractor's License is required for all bids.

Pursuant to Arkansas Code Annotated §22-9-203 The City of Fayetteville encourages all *qualified* small, minority and women business enterprises to bid on and receive contracts for goods, services, and construction. Also, City of Fayetteville encourages all general contractors to subcontract portions of their contract to *qualified* small, minority and women business enterprises.

The City of Fayetteville reserves the right to waive irregularities, reject bids, and postpone the award of any Contract for a period of time which shall not exceed beyond ninety days from the bid opening date.

CITY OF FAYETTEVILLE, ARKANSAS

By: Andrea Foren, CPPB, CPPO
City Purchasing Agent
Ad dates: 10/19/12 and 10/26/12

2.0

INFORMATION FOR BIDDERS

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2.0 INFORMATION FOR BIDDERS

2.1 INSTRUCTIONS FOR BIDDING

2.1.1 SUBMITTING THE BID

- Each Bid must be submitted in a SEALED ENVELOPE addressed to

Peggy Vice
Purchasing Officer, Room 306
City of Fayetteville
113 West Mountain Street
Fayetteville, AR 72701

- Each sealed envelope containing a Bid must be plainly marked on the outside of the envelope as Bid for 2013 ANNUAL SANITARY SEWER MAINLINE AND SERVICE LATERAL REHABILITATION, CURED IN PLACE PIPE METHOD, Bid Number 12-75. The envelope should bear the full name and address of the Bidder on the outside. The envelope shall also bear the valid Arkansas Contractor's License Number.
- If forwarded by mail, the above-described envelope containing the Sealed Bid must be enclosed in another envelope addressed to:

Peggy Vice
Purchasing Officer, Room 306
City of Fayetteville
113 West Mountain Street
Fayetteville, AR 72701

2.1.2 FILLING OUT THE BID DOCUMENTS

- All Bids must be made on the required bid form as contained within the Contract Documents.
- All spaces for bid prices must be filled-in in ink or typewritten, and the Bid Form must be fully completed and properly executed by a bona fide agent of the Bidder when the Bid is submitted.
- The City of Fayetteville is not exempt from state and local use taxes. Bid amounts **shall include** State and local sales or use tax.
- Only one copy of the Bid Form is required to be submitted.
- **All documents in Section 4.0 Bidder's Proposal shall be submitted with the Bid.**
- A conditional or qualified bid may be rejected.

2.1.3 BID CONDITIONS AND REQUIREMENTS

- A Bidder may not withdraw his bid within sixty (60) consecutive calendar days after the date of the opening thereof. Should there be reasons why the Contract cannot be awarded within the specified 60-day period, the time may be extended by mutual agreement between the City of Fayetteville and the Bidder.
- The City of Fayetteville may waive any informalities or minor defects in the bidding, or reject any or all bids without recourse.
- Bidders shall not submit bids that are mathematically or materially unbalanced. The City reserves the right to reject a bid as non-responsive if the prices are materially or mathematically unbalanced between line items or sub-line items. A bid shall be deemed materially unbalanced if a bid is based on prices significantly less than the cost of some work and prices which are significantly over stated in relation of the cost of other work, and if there is reasonable doubt that the bid will result in the lowest overall cost to the City even though it may be the low evaluated bid, or if it is so imbalanced as to be tantamount to allowing an advanced payment. A bid shall be considered mathematically unbalanced if the bid is structured on the basis of nominal prices for some work and has inflated prices for other work; therefore, each element of the bid shall carry its proportionate share of the total cost of the work plus profits.
- Any Bid may be withdrawn prior to the scheduled time for the opening of Bids or authorized postponement thereof.
- Any Bid received after the time and date specified for receipt of bids will not be considered and will be returned to the Bidder unopened.
- The successful bidder shall furnish Performance and Payment Bonds upon the form provided in the amount of 100% of the total contract price from an approved bank or surety company holding a permit from the State of Arkansas to act as surety, or other surety or sureties acceptable to the City of Fayetteville. **The Performance and Payment Bonds shall be recorded at the Washington County Courthouse by the Contractor before they are provided to the City.**
- The CONTRACTOR shall furnish a Maintenance Bond for an amount equal to fifty percent (50%) of the contract price for improvements and shall be for two (2) years from and after the date of the Engineer's acceptance of the work.
- The CONTRACTOR agrees that they will comply with the terms of the "Americans With Disabilities Act".
- Attention of Bidders is particularly called to the requirement as to conditions of employment to be observed and minimum wages to be paid under the Contract as incorporated.
- The Bidder shall submit within the same envelope with his Bid Form, complete "submittal data" to thoroughly define the character of the methods and materials upon which his Bid is based. Submittal data shall include catalog data sheets, descriptive material, photographs, etc., so as to thoroughly explain to the City of Fayetteville the character of the proposed rehabilitation. If such submittal is deficient in the opinion of the City of Fayetteville, the City

of Fayetteville may request of the Bidder supplementary information as necessary to satisfy the City of Fayetteville.

2.1.4 COOPERATIVE BID LANGUAGE

- Unless otherwise stipulated by the Bidder, the Bidder agrees to make available to all Government agencies, departments, municipalities, and counties, the prices submitted in accordance with said bid terms and conditions therein, should any said governmental entity desire to buy under this bid. Eligible Users shall mean all state of Arkansas agencies, the legislative and judicial branches, political subdivisions (counties, local district school boards, community colleges, municipalities, counties, or other public agencies or authorities), which may desire to purchase under the terms and conditions of the contract.

2.1.5 STATEMENT OF QUALIFICATIONS

- It is the intention of the City of Fayetteville to award a Contract only to a bidder who furnishes satisfactory evidence that he has the requisite experience and ability and that he has sufficient capital, facilities, and plant to enable him to prosecute the work successfully and promptly. Prospective bidders must complete and submit the enclosed Qualification Statement with his bid. The Contractor must also provide documentation with his bid that he has successful experience with the following: (1) lining no less than 50,000 feet of 6" sewer main; (2) reinstatement of no fewer than 200 each internal 4" services connected to 6-inch diameter sewer mains; (3) lining no fewer than 200 each service laterals in lengths no less than 10 feet and no more than 75 feet.

2.2 SCOPE OF WORK

2.2.1 PROJECT DESCRIPTION

- Term maintenance contract for the rehabilitation of sanitary sewer mainlines and service laterals throughout the City of Fayetteville, Arkansas.

2.2.2 LOCATION OF PROJECT

- Multiple miscellaneous locations within the Fayetteville, Arkansas sanitary sewer collection system have been identified for rehabilitation. The City of Fayetteville's goal is to accomplish the rehabilitation in phases. **The City of Fayetteville may choose to purchase more, less, or none of the rehabilitation, depending upon its needs.** The City of Fayetteville is under no obligation to purchase a minimum amount of any item awarded.
- This contract is generally for miscellaneous and unidentified rehabilitation of sanitary sewer mains and service connections using the cured-in-place pipe method.

2.2.3 PURCHASE ORDERS

- Purchase orders may be issued to the successful bidder for an amount up to an approximate total of \$300,000 with a contract period not to exceed one (1) year.
- The cost of any change orders will be included in the original contract total, i.e.; they will count against the approximate total of \$300,000. Payment for work on a particular project shall

be made upon completion and acceptance of the work by the City of Fayetteville. **There will be no partial payment made for any project.**

2.2.4 PROGRESS OF WORK

- The CONTRACTOR shall schedule crews in a way to have continuous work from the time a work order has been initiated until it is complete. The CONTRACTOR shall not demobilize until all work from the work order is complete.

2.2.4 CONTRACT RENEWAL

- The contract may be renewed for additional periods up to four (4) additional contract periods beyond the original bid and will be based solely upon the option and agreement between both the City of Fayetteville and the CONTRACTOR. The prices and rates bid by the successful bidder shall be firm throughout the initial one year period of the contract. Prices and rates may only be increased or decreased for the next or subsequent contract extension period, and only if the parties agree to extend the contract. If the City of Fayetteville seeks to decrease or Contractor seeks to increase any price or rate, each party shall give the other party written notice thereof at least ninety (90) days prior to the end of the contract year, together with a justification for each proposed rate of price change. City of Fayetteville and Contractor shall negotiate in good faith the amount, if any, in the increase or decrease in the price or rate; provided, however, in no event may any specific unit cost change more than five percent (5%) of the preceding year's value. If the parties are unable to agree on the extension of the contract, then the contract shall terminate at the end of the contract year, subject to the City of Fayetteville's right to unilaterally extend the contract of the same terms and conditions, for a period not to exceed four (4) months to enable the City of Fayetteville time to rebid this document.

2.2.5 MISCELLANEOUS

- The basis for award of the contract shall be the lowest total bid by an acceptable and qualified CONTRACTOR who meets all or the experience requirements stated within this contract. Any bidder who does not meet all of the experience requirements stated within this contract shall be considered a nonqualified bidder and will not be awarded the contract.
- The CONTRACTOR will establish a point of contact for all field and construction related topics, and a point of contact for all billing and office related topics.
- It is the City of Fayetteville's intent to minimize disruption and street or access closure time to the residents of the City of Fayetteville. Therefore, the CONTRACTOR shall arrange crews in a way to have continuous work from the time a particular project has begun until it is complete. It shall be the responsibility of the CONTRACTOR to inform the City of Fayetteville regarding dates and locations of work activities that may impact the flow of traffic.

2.3 GENERAL INFORMATION

2.3.1 SPECIFICATIONS

- This contract is generally for miscellaneous and unidentified rehabilitation of sanitary sewer mainlines and service lines using the cured-in-place pipe method. Bids offering alternative methods or products may be considered for award if such methods and products are clearly identified in the bid and are determined by the City of Fayetteville to be equal in all respects to the materials and methods referenced in the Specifications. Exceptions taken to the Specifications, if any, shall be clearly documented within the Bidder's bid package.

2.3.2 STATE AND LOCAL TAXES

- The City of Fayetteville is not exempt from state and local use taxes.
- Bid amounts **shall include** State and local sales or use tax.

2.3.3 ESTIMATE

- All invoices for payment presented by the CONTRACTOR shall provide documentation to support the location and amount of work accomplished during the payment period.

2.3.4 PAYMENT

- The Contractor's Invoice and all supporting documents shall be submitted to the City of Fayetteville. The City of Fayetteville will prepare the pay estimate based on the Contractor's Invoice.
- City of Fayetteville will pay amounts due to the Contractor within 30 calendar days after processing the pay estimate.
- Invoices shall be sent to the City of Fayetteville. They shall be itemized to include:
 - The specific bid items utilized.
 - The quantities of those bid items.
 - The location of the project.
 - The total cost for that project.
 - The total billing to date under the annual contract, including any change orders.
 - All state and local taxes applicable.
- Completion of a particular project is defined to include the satisfactory performance of all minor and non-pay work items such as clean up and restoration/replacement of all damaged private and public property, etc.
- **There will be no separate pay items for the following miscellaneous construction items. Cost for these items shall be considered incidental to other contract bid items.**
 - Pre-TV and Post-TV inspection of pipelines
 - Bypass systems to include set up, operation, and removal
 - Excessive pipeline cleaning and root removal
 - Final Cleanup.

2.3.5 RETAINAGE

- As security for the faithful completion of the work by the CONTRACTOR, the City of Fayetteville shall retain five percent (5%) of the total dollar amount of work done on this contract per work order issued.
- Thirty (30) days after successful completion of a work order by the CONTRACTOR the retainage will be released to the CONTRACTOR.

2.3.6 SAFETY

- The CONTRACTOR will be responsible for all signing and barricading and will comply with those portions of the "Arkansas Manual on Uniform Traffic Control Devices for Streets and Highways" which pertain to construction.
- The CONTRACTOR will be responsible for contacting Arkansas One Call in order to determine the location of all utilities in all work areas relating to any excavation performed by the contractor. The City of Fayetteville shall be responsible for contacting Arkansas One Call in order to determine the location of all utilities in all work areas relating to any Excavation performed by City of Fayetteville crews.
- The CONTRACTOR shall take precautions and use care to avoid damaging, disturbing, or disrupting existing private facilities on private or public property, i.e., fences, sprinkler facilities, shrubs, landscaping, etc. The CONTRACTOR shall restore, to the City of Fayetteville's satisfaction, any property damaged by the CONTRACTOR, at the CONTRACTOR's expense.
- The CONTRACTOR shall arrange crews in a way to have continuous work from the time a particular project has begun until it is complete in order to minimize disruption and street or access closure time to the residents of the City of Fayetteville.

2.3.7 INDEMNIFICATION

- The CONTRACTOR agrees to indemnify and hold harmless and the City of Fayetteville, its officers, agents and employees, from and against liability for any and all claims, liens, suits, demands, and actions for damages, injuries to persons (including death), property damage (including loss of use), and expenses, including court costs, attorneys' fees and other reasonable costs arising out of or resulting from Contractor's work and activities conducted in connection with or incidental to this contract and from any liability arising out of or resulting from any acts or negligence, including all such causes of action based upon common, constitutional, or statutory law, or based in whole or in part upon the negligent or intentional acts or omissions of CONTRACTOR, including but not limited to its officers, agents, employees, subcontractors, licensees, invitees, and other persons.
- The CONTRACTOR further agrees that it shall at all times exercise reasonable precautions on behalf of, and be solely responsible for, the safety of its officers, agents, employees, subcontractors, licensees, invitees and other persons, as well as their property, while in the vicinity where the work is being done. It is expressly understood and agreed that the City of Fayetteville shall not be liable or responsible for the negligence of the CONTRACTOR, including but not limited to its officers, agents, employees, subcontractors, licensees, invitees, and other persons.

- The CONTRACTOR agrees to indemnify and save the City of Fayetteville harmless from all claims growing out of any demands of subcontractors, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, power tools, all supplies, including commissary incurred in the furtherance of the performance of this contract. When the City of Fayetteville so desires, the CONTRACTOR shall furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged or waived.
- It is further agreed, with respect to the above indemnity, that the City of Fayetteville and the CONTRACTOR will provide the other prompt and timely notice of any event covered which in any way, directly or indirectly, contingently or otherwise, affects or might affect the CONTRACTOR or the City of Fayetteville, and the City of Fayetteville shall have the right to compromise and defend the same to the extent of its own interests.
- Insurance coverage shall be of the following types and not less than the following specified amounts:

Commercial General Liability	\$500,000 per occurrence	\$1,000,000 aggregate
Automobile Liability	\$250,000 per occurrence	\$1,000,000 aggregate
Property Damage	\$100,000 per occurrence	
Excess Liability	Other than umbrella from \$1,000,000	
Employer's Liability	\$250,000 per occurrence	\$500,000 aggregate
Worker's Compensation	Statutory worker's compensation coverage	
Umbrella Liability	Not less than \$1,000,000 per occurrence combined limit for bodily injury and property damage	

2.3.8 PROGRESS SCHEDULE

- The CONTRACTOR, upon the execution and delivery of the contract, shall prepare and submit for the CITY OF FAYETTEVILLE'S approval a Critical Path Method (CPM) progress schedule showing the manner of prosecution of the work in order to complete the contract within the allocated time. The CITY OF FAYETTEVILLE will review and approve the proposed progress schedule not later than the issuance of the notice to proceed. The progress schedule shall be revised if, in the opinion of the CITY OF FAYETTEVILLE, the scheduled progress of the work is not being maintained. This revised schedule will address the methods by which time lost shall be made up.

2.3.9 CONTRACTOR QUALIFICATIONS

- All bidders on this project must be deemed qualified by the City of Fayetteville to perform this work. In order to be considered qualified to bid on this contract, the bidding CONTRACTOR, product, manufacturer, and installing CONTRACTOR must provide documentation to satisfy compliance with the following requirements:
 - a) For the bidding **CONTRACTOR** to be considered acceptable, the CONTRACTOR must satisfy all insurance, financial, and bonding requirements by the City of Fayetteville and shall have completed minimum of ten (10) Term Service Contracts, as the General CONTRACTOR, similar in scope to this project with a minimum duration of (1) one year. The CONTRACTOR must also provide documentation with his bid

that he has successful experience with the following: (1) lining no less than 50,000 feet of 6" sewer main; (2) reinstatement of no fewer than 400 each internal 4" services connected to 6-inch diameter sewer mains; (3) lining no fewer than 200 each service laterals in lengths no less than 10 feet and no more than 75 feet.

- b) For a mainline **Product** to be considered Commercially Proven, a minimum of 1,000,000 linear feet or 4,000 manhole-to-manhole line sections of successful wastewater collection system installations in the U.S. must be documented to the satisfaction of the City of Fayetteville to assure commercial viability. The mainline product intended for use on this contract must be specified with the submittal documents. All materials furnished shall be manufactured in the U.S.A.
- c) For a **Contractor** to be considered as Commercially Proven, the **Contractor** shall have installed 500,000 linear feet of CIPP in wastewater collection systems in the United States. The **Contractor's** key onsite personnel shall have had at least 5 (five) years active experience with the **Contractor** in the commercial installation of the products bid. The installing CONTRACTOR must be specified with the submittal documents.
- b) Sewer rehabilitation products submitted for approval must provide **Third Party Test Results** supporting the long-term performance and structural strength of the product and such data shall be satisfactory to the City of Fayetteville. No product will be approved without independent third party testing verification.
- c) The rehabilitation manufacturing processes shall operate under a quality management system that is third party certified to ISO 9001 or other internationally recognized organization standards. Proof of certification shall be required for approval.
- d) The Contractor shall own and operate its own permitted wet-out facility where the resin impregnation of the CIPP tube will be carried out. Documentation of such facility shall be submitted to the City of Fayetteville. **No wet-out of purchased materials (tube & resin) shall be completed through 3rd party companies.**

2.4 SPECIAL CONDITIONS

2.4.1 PERMITS AND RIGHT-OF-WAY

- The intent of this contract is for the City of Fayetteville to perform all excavations to include external lateral reinstatements, required point repairs, and obstruction removal. The CONTRACTOR shall not be required to do this excavation without a written work directive change. All references to work relative to excavation only apply if the contractor performed the excavation.
- The City of Fayetteville will provide rights-of-way for the purpose of construction without cost to the CONTRACTOR by securing permits in areas of public dedication or by obtaining easements across privately owned property.
- It shall be the responsibility of the CONTRACTOR, 48 hours prior to the initiation of construction on easements through private property, to inform the property owner of his intent to begin construction. Before beginning construction in areas of public dedication, the

CONTRACTOR shall inform the agency having jurisdiction in the area forty-eight (48) hours prior to initiation of the work.

2.4.2 TRADE NAMES AND MATERIALS

- No material, which has been used by the CONTRACTOR for any temporary purpose whatsoever, is to be incorporated in the permanent structure without written consent of the City of Fayetteville.
- Where materials or equipment are specified by a trade or brand name, it is not the intention of the City of Fayetteville to discriminate against an equal product or another manufacturer, but rather to set a definite standard or equality or performance, and to establish an equal basis for the evaluation of bids. Where the words "equivalent", "proper", or "equal to" are used, they shall be understood to mean that the thing referred to shall be proper, the equivalent of, or equal to some other thing, in the opinion of judgment of the Engineer. Unless otherwise specified, all materials shall be the best of their respective kinds and shall be in all cases fully equal to approved sample. Notwithstanding that the words "or equal to" or other such expressions may be used in the specifications in connections with the materials, manufactured article or process, the material, article or process specifically designated shall be used, unless a substitute shall be approved in writing by the City of Fayetteville and the City of Fayetteville shall have the right to require the use of such specifically designated material, article or process.

2.4.3 PROPERTY AND MONUMENT LINES

- The CONTRACTOR shall protect all property corner markers, and when any such marker or monuments are in danger of being disturbed, they shall be properly referenced and if disturbed shall be reset at the expense of the CONTRACTOR.

2.4.4 DURING CONSTRUCTION

- During construction of the work, the CONTRACTOR shall at all times, keep the site of the work and adjacent premises as free from material, debris, and rubbish, as is practicable, shall remove same from any portion of the site, if in the opinion of the City of Fayetteville such material debris, or rubbish constitutes a nuisance or is objectionable.
- The CONTRACTOR shall remove from the site all of his surplus materials and temporary structures when no further need therefore develops.

2.4.5 PROJECT MAINTENANCE

- The CONTRACTOR shall maintain and keep in good repair the work contemplated under these plans, specifications, drawings, etc., and shall perform for a period as set forth in the Maintenance Bond from the date of acceptance all necessary repair, reconstruction and renewal of any part of said construction and shall furnish the labor and materials to make good and to repair any defective condition growing out of or on the account of the breakage or failure of any substance or the improper function of same. Said maintenance contemplates the complete restoration to a functional use during the said period as set forth in the Maintenance Bond.

2.4.6 PROTECTION OF IMPROVEMENTS

- The CONTRACTOR shall be entirely responsible for the protection of all improvements that are not designated by the City of Fayetteville to be removed for proper construction of the project. This shall include sidewalks, building walls, existing inlets and manholes, underground utilities, shrubs, trees, signs, sod and fences. The CONTRACTOR shall be entirely responsible for the protection of all pavements adjacent to the project.

2.4.7 ACCIDENTS

- The CONTRACTOR must report in writing to the City of Fayetteville all accidents whatsoever arising out of, or in connections with the performance of the work, whether on, or adjacent to, the site, which caused death, personal injury, or property damages, giving full details and statements of witnesses. In addition, if death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to the City of Fayetteville.
- If any claim is made by anyone against the CONTRACTOR or any subcontractor on account of any accident, the CONTRACTOR shall promptly report the facts in writing to the City of Fayetteville giving full details of the claim.

2.4.8 ARRANGEMENTS FOR WATER

- Water used for installation purposes, jetting or flooding trenches, sprinkling, testing and flushing of pipelines or any other purpose incidental to this project, **will be furnished by the CONTRACTOR**. The CONTRACTOR shall make the necessary arrangements for securing the transporting of such water and shall take such water in a manner and at such time that will not produce a harmful drain or decrease of pressure in the City of Fayetteville's WATER SYSTEM. Water shall not be used in a wasteful manner.

2.4.9 USE OF FIRE HYDRANTS

- No person shall open, turn off, interfere with, attach any pipe or hose to, or connect anything with any fire hydrant, stop valve or stop cock, or tap any water main belonging to the City of Fayetteville, unless duly authorized to do so by the City of Fayetteville Water Department.

2.4.10 LIGHTS AND POWER

- The CONTRACTOR shall provide, at his own expense, temporary lighting and facilities required for the proper prosecution and inspection of the work.

2.4.11 PROTECTION OF TREES

- No trees shall be cut except upon the specific authority by the City of Fayetteville. Trees adjacent to the work shall be protected from all damage by the construction operations.

2.4.12 REMOVAL OF TREES, FENCES, ETC.

- Fences within the right-of-way of this project shall be kept in good repair and closed at all times, except when it is necessary to move machinery and equipment through the fence. Gates shall be

closed immediately after use. When the project is complete, the CONTRACTOR shall repair all fences and gates that have been moved or damaged by the CONTRACTOR as a result of construction. Fences shall be left in repair equal to the original condition. No separate compensation shall be made for this work.

- Where surface drainage channels are disturbed or blocked during construction, they shall be restored to their original condition of grade and cross section after the work of construction is completed.
- The CONTRACTOR shall not be held liable for unavoidable damage to crops provided such damage occurs within the construction easement provided by the City of Fayetteville.

2.4.13 POLES, SIGNS, GUY WIRES, ETC

- All utility poles and guy wires, private sign posts, signs and guy wires, and similar private obstructions which interfere with the construction of this project will be removed and replaced, or moved to new permanent locations by the Owners thereof without cost to the CONTRACTOR.
- The removal and replacement of City of Fayetteville street sign posts and signs are the responsibility of the CONTRACTOR. The CONTRACTOR shall be responsible for all damage to street signposts and signs within the limits of his operations that remain in place or are removed and replaced. In the event street sign posts and signs are injured or destroyed by the CONTRACTOR'S operations, they shall be replaced by the CONTRACTOR. No separate compensation will be paid for this work, but the costs thereof shall be included in such contract pay items as are provided.

2.4.14 EXISTING UTILITIES AND SERVICE LINES

- Prior to the start of any excavation by the CONTRACTOR, the CONTRACTOR shall communicate with ARKANSAS ONE CALL, the proper representative of all the utility systems included but not limited to the water and sewer department, the gas company, electric company, telephone company and any other private utility companies and advise said representative of the route of the proposed construction, in order to obtain the assistance of the utility in the location of and in the avoidance of conflicting with utility lines.
- The CONTRACTOR shall be responsible for the protection of all existing utilities or service lines crossed or exposed by his construction operations. Where existing utilities or service lines are cut, broken, or damaged, the CONTRACTOR shall replace or repair the utilities or service lines with the same type of original material and construction, or better, at his own cost and expense, with the exception of those items included in the bid schedule.

2.4.15 EXISTING STRUCTURES

- No construction plans have been prepared for this contract. It is the Contractor's responsibility to verify the locations of existing surface and subsurface structures. It is mutually agreed that such shall not be considered sufficient basis for claims for additional compensation for extra work or for increasing the pay quantities in any manner whatsoever, unless the obstruction encountered is such as to necessitate changes in the lines or grades, or requires the building of special work, provisions for which are not made in the plans and proposal, in which case the provisions in these specifications for extra work shall apply.

2.4.16 TESTING, INSPECTION AND CONTROL

- Testing of CIPP field samples and other materials used in the work shall be done by an approved commercial laboratory and paid directly by the CONTRACTOR.

2.4.17 DRAINAGE

- The CONTRACTOR shall provide at his own cost and expense all methods for adequately draining the work. No separate measurement or compensation will be paid for sub-drains or other methods of draining, but the cost thereof shall be included in such contract pay items as are provided in the Proposal and Contract.

2.4.18 CONSTRUCTION IN CITY STREETS AND PRIVATE DRIVES

- It shall be the responsibility of the CONTRACTOR to build and maintain all weather bypasses and detours, if necessary, and to properly light, barricade, and mark all bypasses and detours that might be required on and across the streets involved in the work included in this contract.
- Street shall remain open to traffic at all times unless special permission for closing the street is given by the City of Fayetteville. After permission is given for closing any portion of the street, the CONTRACTOR shall be responsible for notifying the Police and Fire Department 24 (24) hours in advance of such closing.
- The CONTRACTOR shall make every effort to complete construction and allow immediate access to adjacent property at all driveway entrances located along the streets. Owners or tenants or improvements where access and/or entrance drives are located shall be notified at least eight (8) hours prior to the time the construction will be started at their driveways or entrances and informed as to the length of time driveways will be closed.
- During wet weather the CONTRACTOR shall construct temporary gravel crossings and wooden walkways to allow ingress and egress across excavated areas at no expense to the City of Fayetteville and as directed by the City of Fayetteville.
- The CONTRACTOR shall at all times, keep a sufficient width of the roadway clear of dirt and other materials to allow the free flow of traffic. The CONTRACTOR shall assume any and all responsibility for damage, person or otherwise, that may be caused by the construction along City of Fayetteville streets or private drives.
- If it becomes apparent that barricades do not sufficiently protect the general public and the CONTRACTOR'S workmen from traffic hazards, the CONTRACTOR may be required to furnish such flagmen and/or watchmen as may be deemed necessary to properly direct traffic.

2.4.19 CONSTRUCTION IN ARKANSAS HIGHWAY DEPARTMENT RIGHT-OF-WAY

- Where the work encroaches upon any right-of-way of the Arkansas Highway Department, the City of Fayetteville will secure the necessary permits for the work. Where highways are crossed, the CONTRACTOR shall observe all the regulations and instructions of the Arkansas Highway Department as to methods of doing the work, or precautions for safety of property and the public. All negotiations with the Arkansas Highway Department except for permits shall be made by the

CONTRACTOR. The Arkansas Highway Department shall be notified by the CONTRACTOR not less than five days previous to the time of his intention to begin work.

2.4.20 MAINTENANCE OF STORM SEWER AND UTILITIES THAT CROSS EXISTING ROADWAY

- The CONTRACTOR shall maintain at all times during construction storm sewer and utility crossings of existing roadways at no expense to the City of Fayetteville. Storm sewers and utilities crossing existing roadways shall be back-filled in accordance with the provisions of these specifications to an elevation six inches below the elevation of the existing roadway. A six-inch thick compacted gravel base shall be constructed to the elevation of the existing pavement within the limits shall be maintained throughout the construction. Potholes appearing in the existing pavement, which in the opinion of the City of Fayetteville is a hazard to the general public, shall be filled and maintained as directed by the City of Fayetteville.

2.4.21 BARRICADES, LIGHTS AND WATCHMEN

- Where the work is carried on in or adjacent to any street, alley or public place, the CONTRACTOR shall at his own cost and expense furnish and erect such barricades, fences, battery type flasher-markers and danger signals, shall provide such watchmen, and shall provide such other precautionary measures for the protection of persons or property and of the work as are necessary. **UNLESS OTHERWISE INDICATED, ALL SIGNS, BARRICADES, AND TRAFFIC CONTROL DEVICES SHALL BE PLACED AND MAINTAINED IN ACCORDANCE WITH THE LATEST EDITION OF THE ARKANSAS MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)**
- From sunset to sunrise, the CONTRACTOR shall furnish and maintain at least one battery type flasher-marker at each barricade and sufficient number of barricades shall be erected to keep vehicles from being driven on or into any work under construction. The CONTRACTOR shall furnish watchmen in sufficient numbers to protect the work.
- The CONTRACTOR will be held responsible for all damage to the work due to failure of barricades, signs, lights, and watchmen to protect it, and whenever evidence is found of such damage, the City of Fayetteville may order the damaged portion immediately removed and replaced by the CONTRACTOR at his cost and expense. The CONTRACTOR'S responsibility for the maintenance of barricades, signs, and lights, and for providing watchmen shall not cease until the project shall have been accepted by the City of Fayetteville.
- During the prosecution of the work, the CONTRACTOR shall obstruct public travel as little as possible and in no case shall there be less than twelve (12) feet in width of unobstructed roadway for the use of traffic. Materials and equipment stored in or near the path of traffic shall be protected with red flags during the day and with lights during the night.

2.4.22 PROTECTION OF EXISTING WATER VALVE BOXES

- Protection of existing water valve boxes located within the limits of the work shall subsequently be the responsibility of the CONTRACTOR. Failure to show water valve box locations on the plans does not relieve the CONTRACTOR of the responsibility to prevent damage to the valve and boxes.

2.4.23 SURPLUS MATERIALS

- Surplus materials shall be disposed of by the CONTRACTOR at his own cost and expense.
- All excavated earth in excess of that required for back filling shall be removed from the job site and disposed of in a satisfactory manner except in locations where, in the judgment of the City of Fayetteville, it can be nearly spread over along the sites to form the finished contours.

2.4.24 SALVAGED MATERIALS

- All materials removed during the construction of the project as salvaged materials shall be removed, cleaned, hauled to and stacked on the City of Fayetteville's grounds. Salvaged materials shall be the property of the City of Fayetteville.

2.4.25 FINAL CLEAN-UP

- Upon completion of the work and before acceptance and final payment, the CONTRACTOR shall clean, remove rubbish, unused materials and temporary structures from the limits of the project and restore in a manner acceptable to the Engineer, all property, both public and private, that has been damaged by the CONTRACTOR during the prosecution of the work, and shall level and grade all portions of the work where the surface of the natural ground or street surface has been disturbed during construction and shall leave the site of the work in a neat and presentable condition, free from ruts or holes.
- Material cleared from the limits of the project and deposited on adjacent property will not be considered satisfactory unless prior approval is obtained from the property owner involved, the work is accomplished to the satisfaction of the City of Fayetteville, and a proper City of Fayetteville grading permit is issued, if required.

2.4.26 WAGE RATES

- All employees directly employed on the work shall be paid the prevailing wage scale for work of a similar character in this locality, as determined by the Arkansas Department of Labor. One and one-half times the prevailing per diem wage based on a 40 hour work week shall be paid for all hours worked in excess of 40 hours in one week, or for all hours worked on Sundays and on holidays. The days to be considered holidays are as follows:

New Year's Day
Martin Luther King, Jr. Day
Presidents' Day
Memorial Day
Independence Day
Labor Day
Veteran's Day
Thanksgiving (x2)
Christmas Day (x2)

2.4.27 LABOR PREFERENCE

- The CONTRACTOR should give preference to all labor hired on the project in the following order:
 - (a) to bona fide residents of the City of Fayetteville, Arkansas
 - (b) to bona fide residents of the County of Washington, Arkansas
 - (c) to bona fide residents of the State of Arkansas
 - (d) to bona fide residents of the United States
- Provided that these preferences shall apply only where such qualified labor is available to perform the work to which the employment relates.

2.4.28 LEINS

- Neither the final payment nor any part of the retained percentage shall become due until the CONTRACTOR, if required, shall deliver to the City of Fayetteville a complete release of all liens arising out of this contract, or receipt in full in lieu thereof and, if required in either case, an affidavit that so far as he has knowledge or information the releases and receipts include all the labor and material for which a lien could be filed; but the CONTRACTOR may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the City of Fayetteville, to indemnify the City of Fayetteville against any lien. If any lien remains unsatisfied after all payments are made, the CONTRACTOR shall refund to the City of Fayetteville all moneys that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

2.4.29 PRIVATE PROPERTY ACCESS

- The CONTRACTOR shall not enter upon or use private property except as allowed by easements or if the CONTRACTOR obtains specific written permission from the property owner.

2.4.30 COMPANY LOGO

- All equipment used on the project shall be clearly marked with the Contractor's name and LOGO. Subcontractor equipment shall also be similarly marked.

2.4.31 CONSTRUCTION SEQUENCING

- For construction sequence & traffic control plan other than what is included in the contract document, the CONTRACTOR will provide his proposed plan sealed by a licensed engineer in the State of Arkansas, which will be reviewed and accepted by the City of Fayetteville prior to construction.

2.4.32 TRENCH SAFETY SYSTEM

- Where trenching by the Contractor is necessary, the CONTRACTOR shall provide a trench shoring design. Such design shall be prepared, signed and sealed by a Registered Professional Engineer. Such engineer shall carry liability insurance against errors and omission in the amount of \$100,000 minimum. A copy of the policy binder shall be furnished to the City of Fayetteville.

If an alternative trench safety system is to be used, then four (4) copies of the final report shall be provided to the City of Fayetteville prior to the issuance of the notice to proceed for this project.

- The Trench Support System shall cover trench excavations more than five feet (5') in depth. Such excavations shall be provided with a support system or some equivalent means of protection, which will provide a safe environment for workmen. The minimum such support shall be a trench box consisting of a pre-fabricated movable trench shield composed of steel plates welded to a heavy steel frame. Other systems may consist of sheet piling, shoring or bracing and must be approved by the City of Fayetteville. All work, reports, and plans required herein shall be included in the cost of the project.

2.4.33 MOBILIZATION

- It is the intent of this Contract to supply the Contractor with work orders constituting the majority of the plan quantity upon issuance of the Notice to Proceed. In the work order the City of Fayetteville will specify whether the Contractor will mobilize in accordance to standard conditions or emergency conditions. Standard Mobilization will require the Contractor to begin work within fifteen (15) working days from the issuance of the work order or orders. Emergency Mobilization will require the Contractor to begin work within three (3) working days from the issuance of the work order or orders. Payment shall be made at the Contract Unit Price indicated on the Bid Schedule. Quantities stipulated in the Bid Schedule are approximate. The basis of payment for Mobilization will be the actual number of Emergency and Regular Mobilizations performed. The Contractor agrees that he will make no claim for damages, or anticipated profits, or otherwise on account of any difference between the amounts of work actually performed and the estimated amounts therefore.

3.0

TECHNICAL SPECIFICATIONS

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3.0 TECHNICAL SPECIFICATIONS

3.1 CURED-IN-PLACE MAINLINE RECONSTRUCTION

3.1.1 INTENT

- It is the intent of this specification to provide for the reconstruction of pipelines and conduits by the installation of a resin-impregnated flexible tube, which is formed to the original conduit by use of a hydrostatic head. The resin is cured using hot water under hydrostatic pressure within the tube. The Cured-In-Place Pipe (CIPP) shall be continuous and tight fitting.
- The CONTRACTOR shall submit engineering calculations for liner thickness using ASTM F1216 and sealed by a Registered Professional Engineer for approval by the City of Fayetteville prior to the start of work.

3.1.2 REFERENCED DOCUMENTS

- This specification references ASTM F1216 (Rehabilitation of pipelines by the inversion and curing of a resin-impregnated tube), and ASTM D790 (Test methods for flexural properties of un-reinforced plastics), which are made a part hereof by such reference and shall be the latest edition and revision thereof. In case of conflicting requirements between this specification and these referenced documents, this specification will govern.

3.1.3 PRODUCT, MANUFACTURER, CONTRACTOR QUALIFICATION REQUIREMENTS:

- In order to minimize the City of Fayetteville's risk, only proven products with substantial successful long-term track records will be approved. All trenchless rehabilitation products and Contractors must be approved by the City of Fayetteville for the bid to be acceptable.
- Products and Contractors seeking approval must meet all of the following criteria to be deemed Commercially Acceptable:
 - For a *Product* to be considered Commercially Proven, a minimum of 1,000,000 linear feet or 4,000 manhole-to-manhole line sections of successful wastewater collection system installations in the U.S. must be documented to the satisfaction of the City of Fayetteville to assure commercial viability.
 - For a *Contractor* to be considered as Commercially Proven, the Contractor must satisfy all insurance, financial, and bonding requirements of the City of Fayetteville, and must have had at least 5 (five) years active experience in the commercial installation of the product bid. In addition, the Contractor must have successfully installed at least 50,000 feet of the product bid in wastewater collection systems. Acceptable documentation of these minimum installations must be submitted to the City of Fayetteville.
 - Sewer rehabilitation products submitted for approval must provide *Third Party Test Results* supporting the long-term performance and structural strength of the product and such data shall be satisfactory to the City of Fayetteville. No product will be approved without independent third party testing verification.

- Both the rehabilitation manufacturing and installation processes shall operate under a quality management system that is third party certified to ISO 9001 or other internationally recognized organization standards. Proof of certification shall be required for approval.

3.1.4 MATERIALS

- Tube - The Tube shall consist of one or more layers of absorbent non-woven felt fabric and meet the requirements of ASTM F1216, Section 5. The tube shall be constructed to withstand installation pressures, have sufficient strength to bridge missing pipe, and stretch to fit irregular pipe sections.
- The wetout Tube shall have a uniform thickness that when compressed at installation pressures will meet or exceed the Design thickness.
- The Tube, when installed, shall tightly fit the internal circumference and length of the original pipe. Allowance should be made for circumferential stretching during inversion. Overlapped layers of felt in longitudinal seams that cause lumps in the final product shall not be utilized.
- The outside layer of the Tube (before wetout) shall be coated with an impermeable, flexible membrane that will contain the resin and facilitate monitoring of resin saturation during the resin impregnation (wetout) procedure.
- The Tube shall be homogeneous across the entire wall thickness containing no intermediate or encapsulated elastomeric layers. No material shall be included in the Tube that may cause delamination in the cured CIPP. No dry or unsaturated layers shall be evident.
- The wall color of the interior pipe surface of CIPP after installation shall be a light reflective color so that a clear detailed examination with closed circuit television inspection equipment may be made.
- Seams in the Tube shall be stronger than the unseamed felt.
- The outside of the Tube shall be marked for distance at regular intervals along its entire length, not to exceed 5 ft. Such markings shall include the Manufacturers name or identifying symbol. The tubes must be manufactured in the USA.
- Resin - The resin system shall be a corrosion resistant polyester, vinyl ester, or epoxy and catalyst system that when properly cured within the tube composite meets the requirements of ASTM F1216, and the physical properties herein, and those which are to be utilized in the Design of the CIPP for this project. The resin shall produce CIPP, which will comply with the structural and chemical resistance requirements of this specification.
- The Contractor is solely responsible for field verification of all pipe diameters and lengths prior to fabrication and installation. The Contractor shall remedy, at no cost to the City of Fayetteville, any defects in the installed resin tube resulting from field measurement errors, concealed changes in diameter, or from errors in diameters and lengths shown in the Unit Price Schedule. Contractor shall determine the minimum length necessary to effectively span the distance between access points.

3.1.5 STRUCTURAL REQUIREMENTS:

- The CIPP shall be designed as per ASTM F1216, Appendix X1. The CIPP design shall assume no bonding to the original pipe wall.
- The CONTRACTOR must have performed long-term testing for flexural creep of the CIPP pipe material installed by his Company. Such testing results are to be used to determine the long-term, time dependent flexural modulus to be utilized in the product design. This is a performance test of the materials (Tube and Resin) and general workmanship of the installation and curing. A percentage of the instantaneous flexural modulus value (as measured by ASTM D-790 testing) will be used in design calculations for external buckling. The percentage, or the long-term creep retention value utilized, will be verified by this testing. Values in excess of 50% will not be applied unless substantiated by qualified third party test data. The materials utilized for the contracted project shall be of a quality equal to or better than the materials used in the long-term test with respect to the initial flexural modulus used in Design.
- The Enhancement Factor 'K' to be used in 'Partially Deteriorated' Design conditions shall be assigned a value of 7. Application of Enhancement (K) Factors in excess of 7 shall be substantiated through independent test data.
- The layers of the cured CIPP shall be uniformly bonded. It shall not be possible to separate any two layers with a probe or point of a knife blade so that the layers separate cleanly or the probe or knife blade moves freely between the layers. If separation of the layers occurs during testing of field samples, new samples will be cut from the work. Any reoccurrence may cause rejection of the work.
- The cured pipe material (CIPP) shall conform to the structural properties, as listed below.

MINIMUM PHYSICAL PROPERTIES

Cured Composite			
Property	Test Method	per ASTM F1216	(400k Resin)
Modulus of Elasticity	ASTM D-790 (short term)	250,000 psi	400,000 psi
Flexural Stress	ASTM D-790	4,500 psi	4,500 psi

- The required structural CIPP wall thickness shall be based as a minimum, on the physical properties above and in accordance with the Design Equations in the appendix of ASTM F 1216, and the following design parameters:

Design Safety Factor	=	<u>2.0</u>
Retention Factor for Long-Term Flexural Modulus to be used in Design (as determined by Long-Term tests described in paragraph 5.2)	=	<u>1% - 60%</u>
Ovality*	=	<u>2%</u>
Enhancement Factor, k	=	<u>See Section 5.3</u>
Groundwater Depth (above invert)*	=	<u>ft.</u>
Soil Depth (above crown)*	=	<u>ft.</u>
Soil Modulus**	=	<u>Psi</u>
Soil Density**	=	<u>120 pcf</u>
Live Load**	=	<u>H20 Highway</u>
Design Condition	=	<u>Fully Deteriorated</u>

* Denotes information which can be provided here or in inspection video or project construction plans. Multiple line segments may require a table of values.

- Any layers of the tube that are not saturated with resin prior to insertion into the existing pipe shall not be included in the structural CIPP wall thickness computation.
- Chemical Resistance - The CIPP shall meet the chemical resistance requirements of ASTM F1216, Appendix X2. CIPP samples for testing shall be of tube and resin system similar to that proposed for actual construction. It is required that CIPP samples with and without plastic coating meet these chemical testing requirements.
- Hydraulic Capacity - Overall, the hydraulic profile shall be maintained as large as possible. The CIPP shall have a minimum of the full flow capacity of the original pipe before rehabilitation. Calculated capacities may be derived using a commonly accepted roughness coefficient for the existing pipe material taking into consideration its age and condition.
- CIPP Field Samples - When requested by the City of Fayetteville, the CONTRACTOR shall submit test results from field installations in the USA of the same resin system and tube materials as proposed for the actual installation. These test results must verify that the CIPP physical properties specified in Paragraph 3.1.5 have been achieved in previous field applications.

3.1.6 INSTALLATION RESPONSIBILITIES FOR INCIDENTAL ITEMS

- It shall be the responsibility of the City of Fayetteville to locate and designate all manhole access points open and accessible for the work, and provide rights of access to these points. The City of Fayetteville shall provide access to water hydrants for cleaning, inversion and other work items requiring water. The CONTRACTOR will be responsible for the cost of the water.
- Cleaning of Sewer Lines - The CONTRACTOR, when required, shall remove all internal debris out of the sewer line that will interfere with the installation of CIPP. The City of Fayetteville shall provide a dumpsite for all debris removed from the sewers during the cleaning operation. Unless stated otherwise, it is assumed this site will be at or near the sewage treatment facility to which the debris would have arrived in absence of the cleaning operation. Any hazardous waste material encountered during this project will be considered as a changed condition.
- Bypassing Sewage - The CONTRACTOR, when required, shall provide for the flow of sewage around the section or sections of pipe designated for repair. The bypass shall be made by plugging the line at an existing upstream manhole and pumping the flow into a downstream manhole or adjacent system. The pump and bypass lines shall be of adequate capacity and size to handle the flow. The City of Fayetteville may require a detail of the bypass plan to be submitted.
- Inspection of Pipelines - Inspection of pipelines shall be performed by experienced personnel trained in locating breaks, obstacles and service connections by close circuit television. The interior of the pipeline shall be carefully inspected to determine the location of any conditions, which may prevent proper installation of CIPP into the pipelines, and it shall be noted so that these conditions can be corrected. A digital video and suitable log shall be kept for later reference by the City of Fayetteville.

- Line Obstructions - It shall be the responsibility of the CONTRACTOR to clear the line of obstructions such as solids and roots that will prevent the insertion of CIPP. If pre-installation inspection reveals an obstruction such as a protruding service connection, dropped joint, or a collapse that will prevent the inversion process, that was not evident on the pre-bid video and it cannot be removed by conventional sewer cleaning equipment, then the CONTRACTOR shall request the City of Fayetteville to make a point repair excavation to uncover and remove or repair the obstruction.
- Public Notification - The CONTRACTOR shall make every effort to maintain service usage throughout the duration of the project. In the event that a service will be out of service, the maximum amount of time of no service shall be 8 hours for any property served by the sewer. A public notification program shall be implemented, and shall as a minimum, require the CONTRACTOR to be responsible for contacting each home or business connected to the sanitary sewer and informing them of the work to be conducted, and when the sewer will be off-line. The CONTRACTOR shall also provide the following:
 - Written notice to be delivered to each home or business the day prior to the beginning of work being conducted on the section, and a local telephone number of the CONTRACTOR they can call to discuss the project or any problems which could arise.
 - Personal contact with any home or business, which cannot be reconnected within the time, stated in the written notice.
 - The CONTRACTOR shall be responsible for confirming the locations of all branch service connections prior to installing and curing the CIPP.
- Installation - CIPP installation shall be in accordance with ASTM F1216, Section 7, with the following modifications:
 - Resin Impregnation - The quantity of resin used for tube impregnation shall be sufficient to fill the volume of air voids in the tube with additional allowances for polymerization shrinkage and the loss of resin through cracks and irregularities in the original pipe wall. A vacuum impregnation process shall be used. To insure thorough resin saturation throughout the length of the felt tube, the point of vacuum shall be no further than 25 feet from the point of initial resin introduction. After vacuum in the tube is established, a vacuum point shall be no further than 75 feet from the leading edge of the resin. The leading edge of the resin slug shall be as near to perpendicular as possible. A roller system shall be used to uniformly distribute the resin throughout the tube. If the Contractor uses an alternate method of resin impregnation, the method must produce the same results. Any alternate resin impregnation method must be proven.
 - Tube Insertion – The wetout tube shall be positioned in the pipeline using the inversion method. The tube should be inverted through an existing manhole or approved access point and fully extend to the next designated manhole or termination point.
 - Temperature gauges shall be placed inside the tube at the invert level of each end to monitor the temperatures during the cure cycle.
 - Curing shall be accomplished by utilizing hot water under hydrostatic pressure or steam pressure in accordance with the manufacturer's recommended cure schedule. A cool down process shall be conducted that complies with the resin manufacturer's specification.

3.1.7 REINSTATEMENT OF BRANCH CONNECTIONS:

- The Contractor shall be responsible to reinstate each service without excavation, utilizing a remote controlled cutting device, monitored by a video TV camera. The service connection shall be cut at 95% of the opening with the remaining brushed into the lateral using a wire brush to provide a smooth transition from the main line to the service lateral. The CONTRACTOR shall certify he has a minimum of two complete working cutters plus spare key components on the site before each inversion. The Contractor must provide with his bid demonstrated successful experience with internal reinstatement of services located on 6-inch diameter sewer mains.
- The City of Fayetteville reserves the right to reinstate service connections externally with its own forces. The City of Fayetteville will coordinate with the CONTRACTOR after the pre-TV video has been reviewed to determine which services, if any, will be reinstated externally. **No lining work shall be scheduled until the City of Fayetteville and CONTRACTOR have reviewed all pre-TV video.** All work that will require the City of Fayetteville to reinstate service connections externally shall be performed during normal business hours on Monday through Friday. City of Fayetteville crews will not work on Saturday or Sunday, without prior written approval from the City of Fayetteville. The CONTRACTOR'S work schedule shall take into account the City of Fayetteville crew's availability for work. Additional internal reinstatements by Contractor may be required if external excavation is deemed inappropriate by the City of Fayetteville.

3.1.8 INSPECTION / QUALITY CONTROL:

- **CIPP samples shall be prepared for each installation designated by the City of Fayetteville, approximately 20% of the project's installations.** CIPP samples shall be prepared and physical properties tested in accordance with ASTM F1216. The flexural properties must meet or exceed the values listed in Table 1 of the applicable ASTM. All testing shall be paid for by the contractor.
- Wall thickness of samples shall be determined as described in paragraph 8.1.6 of ASTM F1743. The minimum wall thickness at any point shall not be less than 87½% of the design thickness as calculated in Paragraph 3.1.5 of this document.
- Visual inspection of the CIPP shall be in accordance with ASTM F1743, Section 8.6.

3.1.9 CLEAN-UP

- Upon acceptance of the installation work and testing, the CONTRACTOR shall restore the project area affected by the operations to a condition at least equal to that existing prior to the work.

3.1.10 PAYMENT

- Payment for the work included in this section will be in accordance with the prices set forth in the proposal for the quantity of work performed.

3.2 CURED-IN-PLACE LATERAL RECONSTRUCTION FROM MAINLINE

3.2.1 INTENT:

- It is the intent of this portion of the specification to provide for the reconstruction of service lateral sanitary sewer lines, normally without excavation, by the installation of a resin impregnated, flexible, non-woven felt tube inverted into the existing service lateral utilizing a pressure apparatus positioned in the mainline pipe. Curing shall be accomplished by circulating hot water or other approved method to cure the resin into a hard impermeable cured-in-place pipe liner. When cured, the liner should extend over the length of the inversion in a continuous tight-fitting, watertight pipe-within-a-pipe to effect a junction with the mainline reconstructed pipe.

3.2.2 REFERENCE SPECIFICATIONS:

- This specification references ASTM test methods which are made a part hereof by such reference and shall be the latest edition and revision thereof.

3.2.3 GENERAL CORROSION REQUIREMENTS:

- The finished cured-in-place pipe shall be fabricated from materials which when cured will be chemically resistant to withstand internal exposure to domestic sewage.
- All constituent materials will be suitable for service in the environment intended. The final product will not deteriorate, corrode or lose structural strength that will reduce the projected product life.
- In industrial areas subject to possible flows other than domestic sewage, the City of Fayetteville shall obtain samples of the dry weather sewage flow to be analyzed for chemical content. This analysis shall be supplied to the Contractor for his information.

3.2.4 CURED-IN-PLACE PIPE MATERIALS:

- The liner shall be fabricated to a size that when installed will neatly fit the internal circumference of the conduit specified by the City of Fayetteville. Allowance shall be made for circumferential stretching during insertion.
- The minimum length shall be that deemed necessary by the Contractor to effectively span the distance from the lateral connection at the main to the desired termination location in the service lateral pipe. For the purpose of this specification, the termination point shall be a distance within 18 inches of the intersection of the resident cleanout at the property line. The Contractor shall verify the lengths in the field before impregnation.
- Unless otherwise specified, the Contractor shall furnish a specially designed, unsaturated, polyester resin and catalyst system compatible with the cured-in-place process that provides cured physical strengths specified herein.

3.2.5 PHYSICAL STRENGTH:

- The structural performance of the finished pipe must be adequate to accommodate all anticipated loads throughout its design life. No cured-in-place pipe reconstruction technology will be allowed that requires bonding to the existing pipe for any part of its structural strength. Only resin vacuum impregnation will be allowed. If reinforcing materials (fiberglass, etc.) are used, the reinforcing material must be fully encapsulated within the resin to assure that the reinforcement is not exposed, either to the inside of the pipe or at the interface of the CIPP and the existing pipe.
- Design methods are to be derived from traditionally accepted pipe formulae for various loading parameters and modes of failure. All equations will be modified to include ovality as a design parameter. The design method shall be submitted to the Engineer for approval prior to installation.
- The cured-in-place pipe shall conform to the minimum structural standards as listed below:

PROPERTY	ASTM Standard	RESULTS
Flexural Stress	ASTM D 790	4,500 psi
Flexural Modulus of Elasticity	ASTM D 790	250,000 psi

NOTE TO DESIGNER:

Values shown are for commonly used polyester resins in the United States at the time of this writing. Values for non-typical polyesters, vinyl esters, and epoxies should be substituted when applicable. Unless otherwise specified, these values shall be supported using lab test samples.

3.2.6 DEVIATIONS:

- The CONTRACTOR shall submit his price proposal for the appropriate length, diameter and thickness designated in the proposal section. The deterioration of service laterals is an ongoing process. Should pre-construction inspections reveal the service laterals to be in substantially different conditions than those in the design considerations, the CONTRACTOR shall request such changes in liner thickness, supporting such request with design data. The deviation, if approved, shall be reflected by the appropriate addition or reduction in the unit cost for that size as shown in the optional portion of the proposal section.

3.2.7 INSTALLATION PREPARATIONS:

- The following installation procedures shall be adhered to unless otherwise approved by the City of Fayetteville's representative.
- Access – The City of Fayetteville shall ensure that a clean out or access point exists at or beyond the termination point of the length of service lateral to be rehabilitated, to allow for the passage of the required cleaning and video equipment. The point of access shall be constructed of materials which provide a four inch (4") minimum diameter circular opening.
- Safety – The CONTRACTOR shall carry out his operations in strict accordance with all applicable OSHA standards. Particular attention is drawn to those safety requirements involving entering confined spaces.

- Cleaning of Sewer Line – It shall be the responsibility of the CONTRACTOR to verify, prior to installation, that all internal debris has been removed from the sewer line. Internal debris consists of broken pipe sections, roots, loose gravel, etc.
- Inspection of Pipelines – Inspection of pipelines shall be performed by experienced personnel trained in locating breaks and obstacles by closed circuit television. The interior of the pipeline shall be carefully inspected to determine the location of any conditions which may prevent proper installation of the lateral liner into the pipelines, and it shall be noted so that these conditions can be corrected. A video and suitable log shall be kept for later reference by the City of Fayetteville.
- Bypassing Sewage – The CONTRACTOR, when required, shall provide for the flow of sewage around the section or sections of mainline pipe where the service lateral designated for lining is located. The bypass shall be made by plugging the line at an existing upstream manhole and pumping the flow into a downstream manhole or adjacent system. The pump and bypass lines shall be of adequate capacity and size to handle the flow.
- It is required that the service lateral be inactive during the time of installation. This is normally accomplished by turning off the homeowner's services or requesting that the homeowner relinquish using his services during the period of installation.
- Line Obstructions – It shall be the responsibility of the CONTRACTOR to clear the line of obstructions such as solids, dropped joints, roots or collapsed pipe that will prevent the insertion of the cured-in-place liner. If inspection reveals an obstruction that cannot be removed by conventional sewer cleaning equipment, then the City of Fayetteville shall make a point repair excavation to uncover and remove or repair the obstruction.
- The mainline pipe opening shall be prepared to accept the lateral CIPP and the mainline reconstructed pipe shall be maximized to obtain the best possible connection.

3.2.8 INSTALLATION OF LATERAL LINING

- The CONTRACTOR shall designate a location where the liner will be vacuum impregnated prior to installation. The CONTRACTOR shall allow the City of Fayetteville's representative to inspect the materials and "wet-out" procedure. A catalyst system compatible with the resin and liner shall be used.
- The wet-out liner shall be loaded inside a pressure apparatus above ground. The pressure apparatus, with an end attached to a robotic device, shall be winched through the mainline pipe to the service connection. The robotic device, together with a television camera, will be used to position the pressure apparatus' inversion elbow at the service connection opening. Air pressure, supplied to the pressure apparatus through an inversion hose, shall be used to invert the wet-out liner through the lateral pipe. The inversion head will be adjusted to be of sufficient pressure to cause the impregnated liner to invert completely in the lateral pipe and hold the tube tight to the pipe wall. Care shall be taken during the curing process so as not to overstress the Insitutube.
- Curing – In most circumstances, an accelerated ambient-temperature curing resin system will be utilized. However, if a heat cure is required, the CONTRACTOR shall supply a suitable heat source and water recirculation equipment. The equipment shall be capable of delivering hot water or other approved heating medium throughout the section by means of a pre-strung

hose to uniformly raise the water temperature above the temperature required to effect a cure of the resin. This temperature shall be determined by the resin/catalyst system employed.

- If a heat cure is required, the heat source shall be fitted with suitable monitors to gauge the temperature of the incoming and outgoing water supply. Water temperature in the line during the cure period shall be recommended by the resin manufacturer.
- Initial cure shall be deemed to be completed when inspection of the exposed portions of the cured in place pipe appear to be hard and sound and the temperature gauge indicates that the temperature is of a magnitude to realize an exotherm. The cure period shall be of a duration recommended by the resin manufacturer, as modified for the installation process.
- Cool-down – The CONTRACTOR shall cool the hardened cured in place pipe to a temperature below 100°F before relieving the pressure in the pressure apparatus. Cool-down may be accomplished by the introduction of cool air into the pressure apparatus to replace water being forced out of the pressure apparatus. Care shall be taken to maintain proper pressure throughout the cure and cool-down period.
- Finish – The finished CIPP shall be continuous over the entire length of an inversion run and be free of dry spots, lifts, and delamination. The lateral CIPP shall not inhibit the closed circuit television post video inspection of the mainline or service lateral pipes.
- During the warranty period, any defects which will affect the integrity or strength of the cured-in-place liner shall be repaired at the CONTRACTOR's expense in a manner mutually agreed upon by the City of Fayetteville and the CONTRACTOR.
- After the work is completed, the CONTRACTOR will provide the City of Fayetteville with a video showing the completed work including the restored conditions.

3.2.9 CLEAN-UP:

- Upon acceptance of the installation work, the CONTRACTOR shall reinstate the project area affected by his operations.

3.2.10 PAYMENT:

- Payment for the work included in this section will be in accordance with the prices set forth in the proposal for the quantity of work performed.

3.3 CURED-IN-PLACE LATERAL RECONSTRUCTION FROM CLEANOUT OR ACCESS PIT

3.3.1 INTENT:

- It is the intent of this portion of the specification to provide for the reconstruction of service lateral sanitary sewer lines, normally without excavation, by the installation of a resin impregnated, flexible, non-woven felt tube. The resin-impregnated tube shall be installed in the existing service lateral utilizing a pull rope or a push rod. The curing method shall be suitable for the selected resin, such that the resin produces a hard, impermeable cured-in-place pipe liner. When cured, the liner should extend throughout the initially defined and agreed

upon length in a jointless, continuous, tight-fitting, watertight pipe-within-a-pipe to effect a junction with the mainline reconstructed pipe.

3.3.2 REFERENCE SPECIFICATIONS:

- This specification references ASTM test methods which are made a part hereof by such reference and shall be the latest edition and revision thereof.

3.3.3 GENERAL CORROSION REQUIREMENTS:

- The finished cured-in-place pipe shall be fabricated from materials which when cured will be chemically resistant to withstand internal exposure to domestic sewage.
- All constituent materials will be suitable for service in the environment intended. The final product will not deteriorate, corrode or lose structural strength that will reduce the projected product life.
- In industrial areas subject to possible flows other than domestic sewage, the City of Fayetteville shall obtain samples of the dry weather sewage flow to be analyzed for chemical content. This analysis shall be supplied to the CONTRACTOR for his information.

3.3.4 CURED-IN-PLACE MATERIALS:

- The liner shall be fabricated to a size that when installed will neatly fit the internal circumference of the conduit specified by the City of Fayetteville. Allowance shall be made for circumferential stretching during insertion.
- The minimum length span the distance from the cleanout or access pit to the lateral connection at the main. The CONTRACTOR shall verify the lengths in the field before impregnation.
- Unless otherwise specified, the CONTRACTOR shall furnish a specially designed, unsaturated, polyester resin and catalyst system compatible with the cured-in-place process that provides cured physical strengths specified herein.

3.3.5 PHYSICAL STRENGTH:

- The structural performance of the finished pipe must be adequate to accommodate all anticipated loads throughout its design life. No cured-in-place pipe reconstruction technology will be allowed that requires bonding to the existing pipe for any part of its structural strength. Only resin vacuum impregnation will be allowed. If reinforcing materials (fiberglass, etc.) are used, the reinforcing material must be fully encapsulated within the resin to assure that the reinforcement is not exposed, either to the inside of the pipe or at the interface of the CIPP and the existing pipe.
- Design methods are to be derived from traditionally accepted pipe formulae for various loading parameters and modes of failure. All equations will be modified to include ovality as a design parameter. The design method shall be submitted to the Engineer for approval prior to the pre-bid conference.

- The cured-in-place pipe shall conform to the minimum structural standards as listed below:

PROPERTY	ASTM Standard	RESULTS
Flexural Stress	ASTM D 790	4,500 psi
Flexural Modulus of Elasticity	ASTM D 790	250,000 psi

NOTE TO DESIGNER:

Values shown above are for commonly used polyester resins in the United States at the time of this writing. Values for non-typical polyesters, vinyl esters, and epoxies should be substituted when applicable. Unless otherwise specified, these values shall be supported using lab test samples.

3.3.6 DEVIATIONS:

- The CONTRACTOR shall submit his price proposal for the appropriate length, diameter and thickness designated in the proposal section. The deterioration of service laterals is an ongoing process. Should pre-construction inspections reveal the service laterals to be in substantially different conditions than those in the design considerations, the CONTRACTOR shall request such changes in liner thickness, supporting such request with design data. The deviation, if approved, shall be reflected by the appropriate addition or reduction in the unit cost for that size as shown in the optional portion of the proposal section.

3.3.7 INSTALLATION PREPARATIONS:

- The following installation procedures shall be adhered to unless otherwise approved by the City of Fayetteville's representative.
- Access – The City of Fayetteville shall ensure that a clean out or access point exists at or beyond the termination point of the length of service lateral to be rehabilitated, to allow for the passage of the required cleaning and video equipment and the pull-in of the impregnated tube. The point of access shall be constructed of materials which provide a four inch (4") minimum diameter circular opening.
- Safety – The CONTRACTOR shall carry out his operations in strict accordance with all applicable OSHA standards. Particular attention is drawn to those safety requirements involving entering confined spaces.
- Cleaning of Sewer Line – It shall be the responsibility of the CONTRACTOR to verify, prior to installation, that all internal debris has been removed from the sewer line. Internal debris consists of broken pipe sections, roots, loose gravel, etc.
- Inspection of Pipelines – Inspection of pipelines shall be performed by experienced personnel trained in locating breaks and obstacles by closed circuit television. The interior of the pipeline shall be carefully inspected to determine the location of any conditions which may prevent proper installation of the lateral liner into the pipelines, and it shall be noted so that these conditions can be corrected. A video and suitable log shall be kept for later reference by the City of Fayetteville.
- Bypassing Sewage – The CONTRACTOR, when required, shall provide for the flow of sewage around the section or sections of mainline pipe where the service lateral designated for

lining is located. The bypass shall be made by plugging the line at an existing upstream manhole and pumping the flow into a downstream manhole or adjacent system. The pump and bypass lines shall be of adequate capacity and size to handle the flow.

- It is required that the service lateral be inactive during the time of installation. This is normally accomplished by turning off the homeowner's services or requesting that the homeowner relinquish using his services during the period of installation.
- Line Obstructions – It shall be the responsibility of the CONTRACTOR to clear the service lateral line of obstructions such as solids, dropped joints, roots or collapsed pipe that will prevent the insertion of the cured-in-place pipe. If inspection reveals an obstruction that cannot be removed by conventional sewer cleaning equipment, then the City of Fayetteville shall make a point repair excavation to uncover and remove or repair the obstruction.

3.3.8 INSTALLATION OF CURED-IN-PLACE LATERAL LINING

- The CONTRACTOR shall designate a location where the liner will be vacuum impregnated prior to installation. The CONTRACTOR shall allow the City of Fayetteville's representative to inspect the materials and "wet-out" procedure. A catalyst system compatible with the resin and liner shall be used.
- The wet-out liner shall be attached to a pull cable strung from the lateral through the main line and to the downstream manhole. The liner is then pulled through the lateral until the liner end reaches the required location. The liner is then inflated with water, air or other appropriate medium to fully expand the liner and press it firmly against the walls of the existing lateral pipe.
- Curing – In most circumstances, an accelerated ambient-temperature curing resin system will be utilized, however if a heat cure is required, the CONTRACTOR shall supply a suitable heat source and water recirculation equipment. The equipment shall be capable of delivering hot water or other approved heating medium throughout the section by means of a pre-strung hose to uniformly raise the water temperature above the temperature required to effect a cure of the resin. This temperature shall be determined by the resin/catalyst system employed.
- If a heat cure is required, the heat source shall be fitted with suitable monitors to gauge the temperature of the incoming and outgoing water supply. Water temperature in the line during the cure period shall be recommended by the resin manufacturer.
- Initial cure shall be deemed to be completed when inspection of the exposed portions of the Insitupipe appear to be hard and sound and the temperature gauge indicates that the temperature is of a magnitude to realize an exotherm. The cure period shall be of a duration recommended by the resin manufacturer, as modified for the installation process.
- Cool-down – The CONTRACTOR shall cool the hardened Insitupipe to a temperature below 100°F before relieving the pressure in the pressure apparatus. Cool-down may be accomplished by the introduction of cool air into the pressure apparatus to replace water being forced out of the pressure apparatus. Care shall be taken to maintain proper pressure throughout the cure and cool-down period.
- Finish – The finished CIPP shall be continuous over the entire length of an inversion run and be free of dry spots, lifts, and delamination. The lateral CIPP shall not inhibit the closed circuit television post video inspection of the mainline or service lateral pipes.

- During the warranty period, any defects which will affect the integrity or strength of the cured-in-place liner shall be repaired at the CONTRACTOR's expense in a manner mutually agreed upon by the City of Fayetteville and the CONTRACTOR.
- After the work is completed, the CONTRACTOR will provide the City of Fayetteville with a video showing the completed work including the restored conditions.

3.3.9 CLEAN-UP:

- Upon acceptance of the installation work, the CONTRACTOR shall reinstate the project area affected by his operations.

3.3.10 PAYMENT:

- Payment for the work included in this section will be in accordance with the prices set forth in the proposal for the quantity of work performed.

3.4 CURED-IN-PLACE PIPE FOR TRENCHLESS PIPELINE POINT REPAIR

3.4.1 INTENT

- It is the intent of this Specification to provide for the reconstruction of short lengths of pipelines and conduits by the installation of a resin-impregnated flexible Tube which is inflated in a short length of the pipeline to form a hard, impermeable, corrosion-resistant pipe within a pipe. When cured, the cured-in-place-pipe (CIPP) will be formed to the original conduit. This reconstruction process can be used in a variety of gravity applications such as sanitary sewers and storm sewers.
- This is a standard Specification and may require modification for specific job conditions.

3.4.2 MATERIALS

- Tube - The Tube should consist of one or more layers of flexible needled felt, sewn to the prescribed circumference and length. It shall be capable of carrying resin, withstanding installation pressures and curing temperatures. The Tube should be compatible with the resin system used. The Tube shall be sewn to a size that, when installed, will form to the internal circumference of the original pipe. Allowance should be made for circumferential stretching during installation.
- Resin – A corrosion resistant, unsaturated, styrene-based, thermoset resin and catalyst system or an epoxy resin and hardener that is compatible with the installation process should be used. The CIPP can be expected to have as a minimum structural properties given in Table 1.

TABLE 1. Structural Properties		
<u>Property</u>	<u>Test Method</u>	<u>Minimum Value*</u>
Flexural Strength	D790	4,500 psi
Flexural Modulus	D790	250,000 psi

* Note – The values are considered minimum for field inspection. The purchaser should consult the Contractor for the particular resin system to be used for the long-term design properties.

3.4.3 STRUCTURAL REQUIREMENTS

- The CIPP shall be designed as per ASTM F1216, appendix X.1, taking into consideration the condition of the existing pipe.

3.4.4 INSTALLATION

- The Tube shall be thoroughly wetout with the catalyzed resin using a vacuum impregnation process. If the repair section is over 25 ft. in length, an immediate vacuum point shall be established and closed when the resin approaches that point.
- The Tube shall be properly oriented and loaded into the Carrier Train for proper installation over the repair area.
- The Carrier Train shall be winched to the damaged area and positioned by Closed Circuit TV camera guiding the installation. The installation shall follow the manufacturer's recommended procedures for inflation and curing of the repair.

3.4.5 TESTING REQUIREMENTS

- Hydraulic Capacity – Calculations must support that the finished CIPP point repair will allow for at least 100% of the full flow capacity of the original host pipe before rehabilitation. Calculated capacities may be derived using a commonly accepted roughness coefficient for the original pipe material. A typical roughness coefficient for the CIPP product is 0.010.

3.4.6 INSPECTION

- The installation may be inspected visually if appropriate, or by closed-circuit television. Variations from true line and grade may be inherent because of the conditions of the original piping.
- The finished CIPP should be continuous over the length of the repair area plus no less than six inches on either side extending into structurally sound pipe.

3.4.7 CLEAN-UP

- Upon acceptance of the installation work and testing, the Contractor shall reinstate the project area affected by the operations.

3.4.8 PAYMENT

- Payment for the work included in this section will be in accordance with the prices set forth in the proposal for the quantity of work performed.

3.5 CLEANING AND INTERNAL TELEVISION INSPECTION OF EXISTING SANITARY SEWERS

3.5.1 GENERAL

- This section includes provision of cleaning operations, inspection, and closed circuit television monitoring operations, and all associated work for the sizes and lengths of sewers encountered. Cleaning, debris/solids/root removal, and internal television before and after the installation of CIPP is considered subsidiary to the cost for installing the CIPP liner. No additional payment will be made for this item.
 - All sewers to be inspected shall be cleaned as hereinafter specified except when cleaning is not directed by the CITY OF FAYETTEVILLE.
 - It is not required that television inspection be provided by the CONTRACTOR during the cleaning operation. However, he may do so at his own expense.
 - CONTRACTOR's cleaning operations and line inspections are generally limited to 7:00 a.m. to 5:00 p.m. on Monday through Friday except holidays unless previously approved by CITY OF FAYETTEVILLE.
 - CONTRACTOR shall provide traffic control personnel during operations to maintain safety of all personnel and public traffic maintenance.
 - Contractor shall plug each sewer segment and allow to drain prior to performing internal inspection if flow levels exceed 25 percent of pipe diameter
 - If the specified low flow levels are not achievable using flow through plugs or by scheduling inspection during low flow hours, the CITY OF FAYETTEVILLE may authorize the inspection above these flow levels.
 - The CONTRACTOR shall be responsible for any backups in the sanitary sewer system caused by the cleaning and/or TV operation. Any damage to property, both public and private, including but not limited to backup into homes, businesses, etc., shall be repaired, cleaned or replaced to the satisfaction of the owner of such property at no cost to the CITY OF FAYETTEVILLE.

3.5.2 MATERIALS

- Equipment
 - General
 - The CONTRACTOR shall allow CITY OF FAYETTEVILLE to become familiar with CONTRACTOR's equipment before commencement of work.
 - Cleaning Equipment
 - (1) The CONTRACTOR shall provide all equipment necessary for proper flushing and cleaning of the sewers in the sizes indicated prior to television inspection. Hydraulic high pressure sewer cleaners used for sanitary sewer cleaning shall be specifically designed and constructed for such cleaning. The sewer cleaner shall have a minimum usable water capacity of 600 gallons and a pump capable of delivering at least 30 gallons per minute (gpm) at 1,000 psi. Pressure to the nozzle shall be regulated by a relief valve adjustable from 0 to 1,500 psi minimum. The equipment will be subject to approval by the CITY OF FAYETTEVILLE.
 - (2) Satisfactory precautions shall be taken to protect the sewer lines from damage that might be inflicted by the improper use of cleaning equipment. Sewers damaged as a result of the CONTRACTOR's operations shall be promptly repaired by the CONTRACTOR at no cost to the CITY OF FAYETTEVILLE.

- (3) All equipment, devices, and tools required for this contract shall be owned (or leased) and operated by the CONTRACTOR.

- Television Equipment

- (1) The television cameras used for the inspection shall be specifically designed and constructed for such inspection and shall provide a color picture. Lighting for the camera shall be suitable to allow a clear picture for the entire periphery of the pipe, acceptable to the CITY OF FAYETTEVILLE. The camera shall be operative in 100 percent humidity conditions, have 360° rotate and 290° pan capability, a minimum of 3 lux light capability, and shall have a minimum of 600 line resolutions. The camera equipment must have the capability of being mounted on skids and winched through the sewer lines if required by the condition of the lines.

The CONTRACTOR shall also provide a color mini-camera based closed circuit television inspection system. This system will be used to remotely inspect service laterals from the cleanout. Picture quality should be of a degree of quality to allow a thorough evaluation of service lateral condition.

- (2) Digital recording equipment will be required for all video. The video that will be provided to CITY OF FAYETTEVILLE shall be DVD format.
- (3) The CONTRACTOR shall provide equipment for viewing of the inspection as it takes place.

• Cleaning Operation

- Cleaning Sewers

- (1) Existing flows shall not be interrupted for periods longer than one hour. Sewage diverted during cleaning operations shall be returned to the sanitary system and not discharged into the streams or storm drain system. Cleaning of these sewers may be by means of hydraulic high pressure jetting or other equipment as needed.
- (2) Jet machines may be refilled from fire hydrants in a manner acceptable to the CITY OF FAYETTEVILLE. The CONTRACTOR is responsible for any adverse impact on the water distribution system resulting from his filling operations. Water will be available at no cost to the CONTRACTOR from fire hydrants acceptable to the CITY OF FAYETTEVILLE. A backflow prevention valve is required on CONTRACTOR's equipment during filling operations.
- (3) Cleaning shall generally be performed prior to closed circuit television inspection. The cleaning operations shall be conducted no more than 48 hours in advance of television inspection of the sewer line.
- (4) Unless other methods are authorized by the CITY OF FAYETTEVILLE, light hydraulic cleaning shall be performed for all main sewers to be inspected. Three attempts shall be made, if necessary, by the CONTRACTOR unless directed otherwise by the CITY OF FAYETTEVILLE. If the line is still not suitable for TV inspection, then heavy cleaning shall be recommended to CITY OF FAYETTEVILLE.
- (5) Remove all sludge, dirt, sand, grease, roots, rocks, gravel, and other materials from the pipe and collect and remove resulting debris from the downstream manhole of the sewer section being cleaned. Passing material from sewer section to sewer section will not be permitted. An approved dam or weir shall be constructed in the downstream manhole in such a manner that debris and solids will be trapped and retained.

- (6) Roots shall be removed in the sections designated by the CITY OF FAYETTEVILLE where root intrusion is a problem. Special precautions should be exercised to assure removal of visible roots from the joint area which could hinder normal flow or interfere with any rehabilitation or repair techniques that may be performed. The use of mechanical devices such as kites, balls, rodding machines, root cutters, porcupines, and hydraulic procedures such as high-pressure jet cleaners shall be used, as required. This work will be documented with video, before and after removal of the roots, as directed by the CITY OF FAYETTEVILLE.
- Disposal of Debris
 - (1) Under no circumstances shall sewage or solids be dumped onto the ground surface, street or into ditches, catch basins or storm drains.
 - (2) All solids or semi-solids resulting from the operations shall be removed from the site by the CONTRACTOR unless authorized or directed otherwise by the CITY OF FAYETTEVILLE. Trucks hauling solids or semi-solids from the site shall be watertight so that no leakage or spillage will occur.
 - (3) Disposal will be the responsibility of the CONTRACTOR.
 - Re-cleaning

If a pipeline is found not to be properly cleaned (by visual inspection, video review, or field analysis) in the opinion of the CITY OF FAYETTEVILLE, the television equipment shall be removed and the sewer re-cleaned at no expense to the CITY OF FAYETTEVILLE.
- Inspection Operations
 - Camera Work
 - (1) When the CITY OF FAYETTEVILLE directs that no cleaning shall be performed prior to the inspection and stringing the line is required, the CONTRACTOR shall string the line by approved means so as not to disturb the existing sewer line conditions.
 - (2) The inspections shall be done one sewer section at a time. The section being inspected shall be isolated from the remainder of the sewer in a manner approved by the CITY OF FAYETTEVILLE. Such method will include plugging all upstream flow if necessary. Plugs shall be secure to remain in place and operations conducted to prevent backflow into buildings.
 - (3) The camera shall be inserted in the upstream manhole of the line segment and moved through the line at a uniformly slow rate (maximum 30 feet/minute), stopping at defective joints, all defects and each service connection to allow adequate evaluation by CITY OF FAYETTEVILLE. In addition, the pan/tilt feature of the camera shall be utilized at each service connection and lateral to provide a clear picture for determination of condition by the CITY OF FAYETTEVILLE, and whether the line is plugged or active. If the line segment to be televised has a cleanout on the upstream end, then the inspection will begin at the downstream manhole.
 - (4) If progress of the television camera is impeded or stopped by roots in the sewer reach being inspected, the camera shall be withdrawn, at the direction of the CITY OF FAYETTEVILLE. The camera shall then be reinserted at the other manhole of the sewer reach and the television inspection resumes. If the camera is stopped by

roots or debris that, in the opinion of the CITY OF FAYETTEVILLE, should have been removed by the cleaning operation, the camera shall be removed and the line re-cleaned at no additional cost to the CITY OF FAYETTEVILLE. Once the re-cleaning is complete, the CONTRACTOR shall televise the line segment. The cost to re-televise is considered subsidiary to the work and paid for one time at the unit cost per foot of pipe actually televised.

- (5) Other obstruction may be encountered during the course of the internal inspection that prevent the travel of the camera. Should an obstruction not be passable, the CONTRACTOR shall withdraw the equipment and begin internal inspection from the opposite end of the sewer reach. Should additional obstructions be encountered after the re-employment and no means are available for passing the obstruction without damage to the equipment, then the remaining sections of the sewer not inspected shall be excluded from the work requirements of the contract. Cost related to difficulties encountered during internal inspections will not be measured for payment nor constitute additional cost to the Contract Price, but will be considered as incidental to the contract.
- (6) The CITY OF FAYETTEVILLE will provide for removal of equipment that may become lodged in the sanitary sewer line unless CITY OF FAYETTEVILLE is requested not to inspect a specific sanitary sewer segment. The CITY OF FAYETTEVILLE is not responsible for damage of the television (TV) camera and its associated equipment during the retrieval process.

- Viewing

Telephones, portable radio, CB, walkie talkies, or other electronic means of communications must be set up where voice or manual communications is not feasible. The CONTRACTOR shall provide facilities for the purpose of viewing the monitor while the inspection is in progress.

- Record Logs

- (1) Measurement for location of defects in sewer mains shall be at the ground level by means of a meter device. Marking on cable or the like which requires interpolation for depth of manhole will not be allowed. Measurement meters shall be accurate to 0.2 feet. A measuring target in front of the television camera shall be used as an exact measurement reference point, and the meter reading shall show this exact location of the measurement reference point. The first feature out of the manhole or cleanout will be measured and used as the initial reference point. If a buried manhole is encountered during the internal TV inspection, the footage will be reset to zero and that segment shall be treated as a new line segment. The CITY OF FAYETTEVILLE's field representative shall instruct the CONTRACTOR on the numbering procedure for this new manhole.
- (2) The CONTRACTOR shall furnish all video equipment and DVD media for digital recording. No reel to reel video recording equipment or VHS tapes will be permitted. In the course of inspection, all sewer sections will be videoed in their entirety.
- (3) Defects shall be described and quantified verbally on the video by the CONTRACTOR. Where appropriate, existing landmarks shall be identified.
- (4) The video will be reviewed by the CITY OF FAYETTEVILLE for focus, lighting, clarity of view, and technical quality. The CONTRACTOR shall maintain sharp focus, proper lighting, and clear, distortion free viewing during the camera

operations. The CONTRACTOR shall maintain plugging and eliminate steam in the line for the duration of the inspection. Failure to maintain these conditions will result in rejection of the video by the CITY OF FAYETTEVILLE. Any sewer line whose video is not acceptable to the CITY OF FAYETTEVILLE will be re-televised at no expense to the CITY OF FAYETTEVILLE.

- (5) Each individual video shall be properly labeled by the CONTRACTOR prior to submittal to the CITY OF FAYETTEVILLE. The label shall list the CITY OF FAYETTEVILLE's sewer line segment number, data, City of Fayetteville, name of CONTRACTOR, and video number.
- (6) Each setup shall be described visually (by superimposing a descriptive caption on the video which identifies critical information) and described audibly on the video recording, both at the initiation and at the conclusion of the setup. The line segment shall be described by the CITY OF FAYETTEVILLE's segment number which includes both basin and manhole numbers. The video counter number shall be voiced on the video recording and written on the record logs both at the initiation and conclusion of each setup. In addition, the video counter number and a brief description of all service laterals, cleanouts, and defects shall be audibly indicated on the video recording.
- (7) The CONTRACTOR shall be responsible for verifying that each service connection is active at the time of initial TV inspection. The CONTRACTOR shall be responsible for dye testing service connections that cannot be verified by visual inspection alone. No work shall be performed on any sewer lines until ALL services have been verified. Reinstatement of "dead" service connections will not be permitted.
- (8) A printed report shall be furnished for each line segment televised. The report will contain the location of service laterals, the status of the laterals, location of cleanouts, the status of the cleanouts and the location and description of any defects.

4.0

BIDDER'S PROPOSAL

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4.0 BIDDER'S PROPOSAL

4.1 ITEMIZED DESCRIPTION OF BID PRICING

TO: City of Fayetteville
 Fayetteville, Arkansas

The undersigned bidder, having examined the specifications and contract documents, and being fully advised as to the extent and character of the work, propose to furnish all equipment and to perform all labor and work necessary for the completion of the work described by and in accordance with the specifications and contracts for the following prices to wit. The unit prices shall be written in words on each line below the item description. The unit price in figures and extended total in figures shall be written on the lines provided. The total bid amount shall be written in both figures and words on the lines provided.

<u>Item No.</u>	<u>Item Description</u>	<u>Approx. Qty.</u>	<u>Unit</u>	<u>Unit Price In Figures</u>	<u>Total</u>
1	6" x 4.5mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place				
	dollars	2500	LF	\$ _____	\$ _____
2	8" x 6.0mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place				
	dollars	2000	LF	\$ _____	\$ _____
3	10" x 6.0mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place				
	dollars	500	LF	\$ _____	\$ _____
4	12" x 6.0mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place				
	dollars	500	LF	\$ _____	\$ _____

<u>Item No.</u>	<u>Item Description</u>	<u>Approx. Qty.</u>	<u>Unit</u>	<u>Unit Price In Figures</u>	<u>Total</u>
5	15" x 7.5mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place				
	dollars	500	LF	\$	\$
6	18" x 9mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place				
	dollars	500	LF	\$	\$
7	Internal reinstatement of Service Laterals				
	dollars	150	EA	\$	\$
8	Trenchless rehabilitation by CIPP of existing 4" Service Lateral				
	dollars	30	EA	\$	\$
9	Standard Mobilization (within 15 working days)				
	dollars	2	EA	\$	\$
10	Emergency Mobilization (within 3 working days)				
	dollars	1	EA	\$	\$
11	CIPP Point Repair, 6" - 12" Diameter, 10 LF				
	dollars	5	EA	\$	\$

TOTAL BID AMOUNT \$ _____

(In Writing)

The undersigned understands that this bid is for a term maintenance contract for the rehabilitation of sanitary sewer mainlines throughout Fayetteville, Arkansas and that the City of Fayetteville here may choose to purchase more, less, or none of the rehabilitation, depending upon its needs. The City of Fayetteville is under no obligation to purchase a minimum amount of any item awarded. This contract is generally for miscellaneous and unidentified rehabilitation of sanitary sewer mains and service connections using the cured-in-place pipe method.

The bidder understands that the City of Fayetteville reserves the right to reject any or all bids, and to waive informalities in the bidding.

The undersigned further agrees that the proposal guaranty may be retained by the City of Fayetteville, Arkansas, provided the undersigned is one of the lowest and most advantageous bidders, and that said proposal guaranty shall remain with the City of Fayetteville until the contract has been signed, and the bond required for the faithful performance of the contract has been made by one of the lowest responsible bidders; otherwise, proposal guaranty may be obtained from the City of Fayetteville after forty-eight hours from the time of opening of the bids.

The undersigned hereby declares that he has had sufficient time to make all test and investigations to arrive at an intelligent estimate of the cost of doing the work, and has carefully examined the specifications and documents relating to the work covered by his bid or bids, that he agrees to do the work, and that no representation made by the City of Fayetteville are in any sense a warranty, but are mere estimates for guidance of the CONTRACTOR.

Upon receipt of notice of the acceptance of the bid, we will execute the formal contract attached in quintuplicate, within ten days, and will deliver a Surety Bond for the faithful performance of the contract, and such other bonds as may have been required in the specifications. The bid security attached in the sum of 5% of the greatest amount of the total bid is (\$5%) is to become the property of the City of Fayetteville if a cashier's check, and if a bond, the principal amount shall be paid to the City of Fayetteville, in the event the contract and bond are not executed within the time set forth, and to be considered as liquidated damages because the delay and additional work caused thereby are incapable of accurate ascertainment.

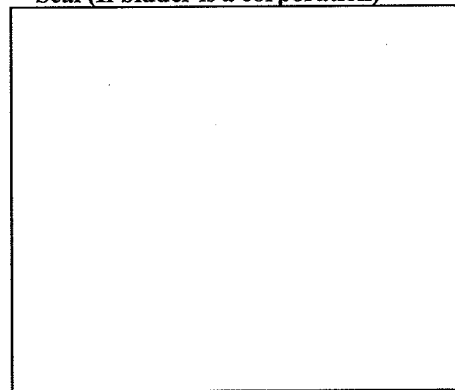
RESPECTFULLY SUBMITTED

Bidder

SIGNATURE AND TITLE

SIGNATURE AND TITLE

Seal (If bidder is a corporation)



Business Address

Telephone Number

FAX Number

Arkansas Contractors License Number _____

NOTE: DO NOT DETACH BID FROM OTHER PAPERS BOUND IN THIS DOCUMENT. Fill Bid Form in with ink and submit complete with all other papers bound in this document

4.2 GENERAL INFORMATION

- Representatives from the CITY OF FAYETTEVILLE will contact the CONTRACTOR with their specific work items. The estimate will reflect and be based on the listed bid items. Upon notification and approval by the CITY OF FAYETTEVILLE, the CONTRACTOR shall start work on the project within fifteen (15) working days. In the event of an Emergency Response project, the CONTRACTOR shall start work on the project within three (3) working days of notification by the CITY OF FAYETTEVILLE, and the **CONTRACTOR** and **City of Fayetteville** shall agree to a final cost for the project no later than **24 hours** after the completion of the project.
- **Payment for work on a particular project shall be made upon completion and acceptance of the work by the City of Fayetteville. There will be no partial payment made for any project.**
- Invoices shall be sent to the City of Fayetteville. They shall be itemized to include:
 - The specific bid items utilized.
 - The quantities of those bid items.
 - The total cost for that project.
 - The total billing to date under the annual contract, including any change orders.
- The CONTRACTOR will be responsible for all signing and barricading and will comply with those portions of the "Arkansas Manual on Uniform Traffic Control Devices for Streets and Highways" which pertain to construction.
- The CONTRACTOR shall take precautions and use care to avoid damaging, disturbing, or disrupting existing private facilities on private or public property, i.e., fences, sprinkler facilities, shrubs, landscaping, etc. The CONTRACTOR shall restore, to the City of Fayetteville's satisfaction, any damaged property at the Contractor's expense.
- Completion of a particular project is defined to include the satisfactory performance of all minor and non-pay work items such as clean-up and restoration/replacement of all damaged private and public property, etc.

POST LINING VIDEOING

- After lining, the CONTRACTOR shall provide the City of Fayetteville television results of the lining showing all taps made upon the new line. Upon completion of the video, a DVD shall be supplied to the CITY OF FAYETTEVILLE.

UTILITIES COORDINATION

- During the construction of this project, the CONTRACTOR shall be responsible for contacting Arkansas One Call for locating any utilities that may be involved in any excavations.

4.3 BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,
_____ as Principal, and
_____ as Surety, are hereby
held and firmly bound unto the City of Fayetteville in the penal sum of
_____ for payment of which, well and truly to be
made, we hereby jointly and severally bind ourselves, successors and assigns.

The Condition of the above obligation is such that whereas the Principal has submitted to the City of Fayetteville a certain BID, attached hereto and hereby made a part hereof to enter into a contract in writing, for Project 2013 ANNUAL SANITARY SEWER MAINLINE AND SERVICE LATERAL REHABILITATION, CURED IN PLACE PIPE METHOD

NOW, THEREFORE,

- (a) If said BID shall be rejected, or
- (b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said BID) and shall furnish a BOND for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth below.

Signed, this _____ day of _____, 2012.

(Principal)

(Surety)

By: _____

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4.4 CONTRACTOR'S ACT OF ASSURANCE FORM

As the authorized representative of the individual, incorporation, or corporation (hereinafter referred to as the company) bidding on or participating in the project, I certify that I have read and understand the requirements of the General and/or Supplemental Conditions and that the principles, agents and employees of the company will comply with these requirements including all relevant statutes and regulations issued pursuant thereto. I further certify as the authorized agent of the company that:

EQUAL OPPORTUNITY I will comply with all requirements of 41 CFR Chapter 60 and Executive Orders 11246 and 11375, including inclusion of all required equal opportunity clauses in each sub-contract awarded in excess of \$10,000 and I will furnish a similar statement from each proposed subcontractor, when appropriate. I will also comply with all Equal Employment Opportunity requirements as defined by Section 504 of the Rehabilitation Act of 1973; the Age Discrimination Act of 1975; and Section 13 of the Federal Water Pollution Control Act Amendments of 1972 regarding sex discrimination.

NONSEGREGATED FACILITIES The company that I represent does not and will not maintain any facilities provided for its employees in a segregated manner, or permit its employees to perform their services at any location under company control where segregated facilities are maintained; and that the company will obtain a similar certification prior to the award of any subcontract exceeding \$10,000 which is not exempt from the equal opportunity clause.

LABOR STANDARDS I will comply with the Labor Standards Provisions contained in the Contract Documents and furnish weekly payrolls and certifications as may be required by the City of Fayetteville to affirm compliance. I will also require that weekly payrolls be submitted to the City of Fayetteville for all subcontracts in excess of \$2,000.

OSHA REQUIREMENTS I will comply with the Department of Labor Safety and Health Regulations promulgated under Section 107 of the Contract Work Hours and Safety Standard Act (40 U.S.C. 327-333) in the performance of the contract.

PROCUREMENT PROHIBITIONS As required by Executive Order 11738, Section 306 of the Clean Air Act and Section 508 of the Clean Water Act, I certify that I will not procure goods and services from persons who have been convicted of violations of either law if the goods or services are to be produced by the facility that gave rise to the violation.

DEBARMENT AND SUSPENSION I certify that to the best of my knowledge and belief that the company that I represent and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a government (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

I understand that a false statement on this certification regarding debarment and suspension may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine. I further certify that I will obtain a similar certification for each subcontract awarded in excess of \$25,000.

AUTHORIZED REPRESENTATIVE

COMPANY NAME: _____

SIGNATURE: _____ DATE: _____

PRINTED NAME: _____ TITLE: _____

5.0

CONTRACT AND BOND DOCUMENTS

NOTICE

THE FOLLOWING BLANK SPACES IN THE CONTRACT AND BONDS ARE NOT TO BE FILLED IN BY THE BIDDER AT THE TIME OF SUBMITTING HIS PROPOSAL. THE CONTRACT AND BOND FORMS ARE SUBMITTED AT THIS TIME TO FAMILIARIZE THE BIDDER WITH THE FORM OF CONTRACT AND BONDS, WHICH THE SUCCESSFUL BIDDER WILL BE, REQUIRED TO EXECUTE.

5.0 CONTRACT AND BOND DOCUMENTS

5.1 AGREEMENT

2013 ANNUAL SANITARY SEWER MAINLINE AND SERVICE LATERAL REHABILITATION, CURED IN PLACE PIPE METHOD

THIS AGREEMENT, made this _____ day of _____, 2012, by and between the City of Fayetteville, Arkansas, and

doing business as a Corporation, hereinafter called "Contractor",

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The Contractor will commence and complete the projects selected for rehabilitation under this Term Maintenance Contract at the City of Fayetteville, Arkansas and all incidental and ancillary work in accordance with the conditions and at the prices stated in the Bid Proposal which are a part of these Contract Documents attached hereto and made a part hereof.
2. The Contractor will furnish all materials, supplies, tools, equipment, labor, and other services necessary for the construction and completion of the projects selected for rehabilitation.
3. The Contractor will commence the work required under this term maintenance contract for the rehabilitation of sanitary sewer mainlines throughout Fayetteville, Arkansas in a timely manner as projects are selected. The Contractor shall furnish City of Fayetteville a timeline for each project as preparation for the work begins.
4. The timeline for this contract shall end December 31, 2013. Upon approval of the City of Fayetteville, the contract may be extended on a yearly basis for up to four years.
5. The Contractor shall be entitled to receive up to Three Hundred Thousand Dollars (\$300,000). City of Fayetteville is under no obligation to purchase a minimum amount of any item awarded and City of Fayetteville may choose to purchase more, less, or none of the rehabilitation, depending upon its needs. This contract is generally for miscellaneous and unidentified rehabilitation of sanitary sewer mains and service connections using the cured-in-place pipe method. The City of Fayetteville will pay the Contractor in the manner and at such times as set forth in the General Conditions such amounts, as required by the Contract Documents.
6. The Contractor agrees to perform the work described in the Contract Documents and comply with the terms therein for the amounts shown in the Bid Proposal.
7. The term "Contract Documents" means and includes the Advertisement for Bids, Information for Bidders, Technical Specifications, Bid Proposal, Agreement, General Conditions, Performance Bond, Payment Bond, Notice of Award, Notice to Proceed, Change Orders and Addenda prepared or issued by the City of Fayetteville.
8. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.
9. It is mutually agreed that should it appear to the City of Fayetteville or to the Authorized Agent in charge, at any time during the existence of this Contract, that the sureties on the Contractor's bond have become insolvent, bankrupt, or otherwise financially unable to protect the City of Fayetteville under the terms of the Contract, the City of Fayetteville may demand the Contractor furnish additional security in some approved surety company satisfactory to the City of Fayetteville. The acts of the City of Fayetteville or the Agent with reference to demanding new or additional security shall never be construed to relieve the original sureties of their obligations under the contract, or to relieve the Contractor. The City of Fayetteville may stop performance under the Contract until additional security has been furnished by the Contractor, and the City of Fayetteville shall in no case be liable to the Contractor on account thereof. In the event of the refusal or failure of the Contractor to comply with the demands of the City of Fayetteville with reference to furnishing additional security, the City of Fayetteville may exercise its right as provided herein to stop all

payments under the Contract and to arrange for completion of the Contract requirements obligating the Contractor for any and all additional expenses incurred.

10. Changes, modifications, or amendments in scope, price or fees to this contract shall not be allowed without a prior formal contract amendment approved by the Mayor and the City council **in advance** of the change in scope, cost or fees.
11. City of Fayetteville contracts and documents prepared while performing City of Fayetteville contractual work are subject to the Arkansas Freedom of Information Act. If a Freedom of Information Act request is presented to the City of Fayetteville, the (contractor) will do everything possible to provide the documents in a prompt and timely manner as prescribed in the Arkansas Freedom of Information Act (A.C.A. §25-19-101 et. seq.). Only legally authorized photocopying costs pursuant to the FOIA may be assessed for this compliance.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in three (3) counterparts, each of which shall be deemed an original on the date first above written.

THE CITY OF FAYETTEVILLE

By: _____
Title: Mayor
113 West Mountain Street
Fayetteville, AR 72701

Attest: _____
Title: _____

CONTRACTOR:

By: _____

*Attest: _____

Title: _____

Title: _____

Company _____

(Corporate Seal)

Address

*If a corporation, the Secretary of the Corporation should Attest.

5.2 PERFORMANCE AND PAYMENT BOND

**2013 ANNUAL SANITARY SEWER MAINLINE AND
SERVICE LATERAL REHABILITATION,
CURED IN PLACE PIPE METHOD**

We, _____,

hereinafter called "PRINCIPAL", and _____, as Surety, hereinafter called "Surety", are held and firmly bound unto the City of Fayetteville, Arkansas as obligee, in the amount of \$ _____ Dollars (\$ _____), for payment where of the PRINCIPAL and Surety bind themselves, their heirs, personal representatives, successors and assigns, jointly and severally, firmly by these presents.

The PRINCIPAL has by written Agreement dated _____, 2012, entered into a contract with the City of Fayetteville to make rehabilitation improvements to sanitary sewer mainlines to be selected by the City of Fayetteville, which Contract is by reference made a part hereof and is hereinafter referred to as the Contract.

WHEREAS, this bond is given pursuant to the Arkansas Government Code;

NOW, THEREFORE, if the PRINCIPAL shall well, truly and faithfully perform its duties, all of the undertakings, covenants, terms, conditions and agreements of the Contract; shall satisfy all claims and demands incurred under the Contract; shall fully indemnify and hold the City of Fayetteville harmless; shall reimburse and repay City of Fayetteville for any outlay or expense which City of Fayetteville may incur in making good any default, and shall promptly make payment to all persons, firms, subcontractors and Cities who may furnish materials or labor under the Contract, then this obligation shall be void; otherwise to remain in full force and effect. The obligations of CONTRACTOR and SURETY under this bond apply both to the original Contract and to any extension or modification of the Contract and SURETY agrees that no change, extension of time, addition, expansion or other modification of the Contract, the work to be done under the Contract, or the plans and specifications which are a part of the Contract shall in any manner affect the obligations of SURETY under this bond, and SURETY waives notice of any such change, extension of time, addition, expansion or other modification. The obligations of CONTRACTOR and SURETY under this bond are performable and payable in Washington County, Arkansas such that exclusive venue for any legal action pertaining to this bond shall lie in Washington County, Arkansas. By their signatures below, the persons signing this bond warrant and represent that they are, respectively, duly authorized to sign on behalf of CONTRACTOR and SURETY.

PROVIDED , FURTHER, that no final settlement between the City of Fayetteville and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in three (3) counterparts, each of which shall be deemed and original.

EXECUTED this the ____ day of _____, 2012

CONTRACTOR:

SURETY:

PRINCIPAL

SURETY

By: _____

By: _____

Name/Title _____

Name/Attorney-in-Fact: _____

Address _____

Address _____

Note: This Bond Form is mandatory; no other form will be acceptable. The date of the Bond must not be prior to the date of the Contract. If Contractor is a Partnership, all Partners must execute this Bond. This Bond must be issued in quintuplicate with the issuing agent's Power of Attorney attached to each copy. SURETY companies executing Bonds must appear on the U.S. Treasury Department's most current list (circular 570 as amended) and be authorized to transact business in the State of Arkansas

5.3 MAINTENANCE BOND

2013 ANNUAL SANITARY SEWER MAINLINE AND SERVICE LATERAL REHABILITATION, CURED IN PLACE PIPE METHOD

We, _____,

hereinafter called "PRINCIPAL", and _____, as SURETY, hereinafter called "SURETY", are held and firmly bound unto the City of Fayetteville, Arkansas as obligee, hereinafter called "City of Fayetteville", in the amount of \$ _____ Dollars (\$ _____), for payment where of the PRINCIPAL and SURETY bind themselves, their heirs, personal representatives, successors and assigns, jointly and severally, firmly by these presents.

The PRINCIPAL has by written Agreement dated _____, 2012, entered into a contract with the City of Fayetteville to make rehabilitation improvements to sanitary sewer mainlines to be selected by the City of Fayetteville, which Contract is by reference made a part hereof and is hereinafter referred to as the Contract.

WHEREAS, this bond is given pursuant to the Arkansas Government Code;

WHEREAS, under the Contract it is provided that the PRINCIPAL will maintain and keep in good repair all work to be performed and done under the Contract for a period of two (2) years from the date of acceptance of the completed work by CITY OF FAYETTEVILLE, and to do and perform all necessary work and repair any defective condition, it being understood that the purpose of this maintenance bond is to insure all warranties, express or implied, made or given by the PRINCIPAL to CITY OF FAYETTEVILLE and to cover all defective, inadequate or non-conforming conditions arising by reason of any materials or labor installed, provided, constructed or performed by the PRINCIPAL and in case the PRINCIPAL shall fail to correct any such conditions it is agreed that CITY OF FAYETTEVILLE may make such corrections and charge the cost of making those corrections against the PRINCIPAL and the SURETY on this obligation, and the PRINCIPAL and SURETY shall be subject to the liquidated damages provided in the contract, the plans and the specifications for each day's failure on its part to comply with the terms and provisions of the Contract;

NOW, THEREFORE, if the PRINCIPAL shall keep and perform its obligation to maintain the work and keep the work in repair for the full maintenance period of two (2) years as herein provided, then these presents shall be null and void and have no further effect, but if default shall be made by PRINCIPAL in the performance of its obligations, then these presents shall have full force and effect, and CITY OF FAYETTEVILLE shall have and recover from the PRINCIPAL and its SURETY damages in the premises as provided and it is further understood and agreed that this obligation shall be a continuing one against the PRINCIPAL and the SURETY and that successive recoveries may be had hereon for successive breaches until the full amount of this bond shall have been exhausted; and it is further understood that the obligation under this bond to maintain the work shall continue throughout the maintenance period and shall not be changed, diminished, or in any other manner affected during the term of this bond. The obligations of PRINCIPAL and SURETY under this bond apply both to the original Contract and to any extension or modification of the Contract and SURETY agrees that no change, extension of time, addition, expansion or other modification of the Contract, the work to be done under the Contract, or the plans and specifications which are a part of the Contract shall in any manner affect the obligations of SURETY under this bond, and SURETY waives notice of any such change, extension of time, addition, expansion or other modification. The obligations of PRINCIPAL and SURETY under this bond are performable and payable in Washington County, Arkansas such that exclusive venue for any legal action pertaining to this bond shall lie in Washington County, Arkansas. By their signatures below, the persons signing this bond warrant and represent that they are, respectively, duly authorized to sign on behalf of PRINCIPAL and SURETY.

PROVIDED, FURTHER, that no final settlement between the City of Fayetteville and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in three (3) counterparts, each of which shall be deemed and original.

EXECUTED this the ____ day of _____, 2012.

CONTRACTOR:

SURETY:

PRINCIPAL _____

SURETY _____

By: _____

—
By: _____

Name/Title

Name/Attorney-in-Fact:

Address

Address

Note: This Bond Form is mandatory; no other form will be acceptable. The date of the Bond must not be prior to the date of the Contract. If Contractor is a Partnership, all Partners must execute this Bond. This Bond must be issued in quintuplicate with the issuing agent's Power of Attorney attached to each copy. SURETY companies executing Bonds must appear on the U.S. Treasury Department's most current list (circular 570 as amended) and be authorized to transact business in the State of Arkansas

5.5 CONTRACTOR'S AFFIDAVIT OF BILLS PAID

**2013 ANNUAL SANITARY SEWER MAINLINE AND SERVICE LATERAL REHABILITATION,
CURED IN PLACE PIPE METHOD**

(To be executed prior to acceptance of project)

**STATE OF ARKANSAS
COUNTY OF WASHINGTON**

Personally, before me the undersigned authority, on this day appeared

who, being duly sworn, on oath, says that he is a legal representative of

(Full name of CONTRACTOR as in Contract)

and that the contract for the construction of the project, designated as TERM MAINTENANCE CONTRACT FOR 2008 SANITARY SEWER MAIN LINE AND SERVICE LATERAL REHABILITATION has been satisfactorily completed and that all bills for materials, apparatus, fixture, machinery and labor used in connection with the construction of this project have, to the best of my knowledge and belief, been fully paid.

Signature

Title

Sworn to and subscribed before me this _____ day of _____, 2013.

_____, Notary Public in and for _____ County, Arkansas

(Seal)

My Commission Expires _____

NOTE: If the CONTRACTOR is an individual, he shall sign the affidavit. If the CONTRACTOR is a partnership, any partner may sign the affidavit. If the CONTRACTOR is a City, a person authorized by the by-laws or by the Board of Directors shall sign the affidavit. If the CONTRACTOR is a joint venture of individuals, any of the individuals may sign the affidavit. If the CONTRACTOR is a joint venture of partnerships, or of individuals and partnerships, the individual or any partner of any partnership may sign the affidavit. If the CONTRACTOR is a joint venture in which a City is a party, separate affidavits must be executed in the name of the joint-venture; one by each City and one by each individual or partnership. Signatures for Cities should be by a duly authorized officer. If signature is by another, a showing of authority to sign must accompany the affidavit.

6.0

PREVAILAING WAGE RATES

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STATE OF ARKANSAS
ARKANSAS DEPARTMENT OF LABOR
PREVAILING WAGE DIVISION

10421 WEST MARKHAM • LITTLE ROCK, AR 72205-2190
Phone: 501-682-4536 Fax: 501-682-4508 TRS: 800-285-1131

September 21, 2012

Shannon Jones
City of Fayetteville
113 West Mountain
Fayetteville, AR 72701

Re: 2013 SANITARY SEWER MAIN LINE AND
SERVICE LATERAL LINING
FAYETTEVILLE, ARKANSAS
WASHINGTON COUNTY

Dear Shannon Jones:

In response to your request, enclosed is Arkansas Prevailing Wage Determination Number **12-275** establishing the minimum wage rates to be paid on the above-referenced project. These rates were established pursuant to the Arkansas Prevailing Wage Law, Ark. Code Ann. §§ 22-9-301 to 22-9-315 and the administrative regulations promulgated thereunder.

If the work is subject to the Arkansas Prevailing Wage Law, every specification shall include minimum prevailing wage rates for each craft or type of worker as determined by the Arkansas Department of Labor Ark. Code Ann. § 22-9-308 (b) (2). Also, the public body awarding the contract shall cause to be inserted in the contract a stipulation to the effect that not less than the prevailing hourly rate of wages shall be paid to all workers performing work under the contract. Ark. Code Ann. § 22-9-308 (c).

Additionally, the scale of wages shall be posted by the contractor in a prominent and easily accessible place at the work site. Ark. Code Ann. § 22-9-309 (a).

Also enclosed is a "**Statement of Intent to Pay Prevailing Wages**" form that should be put in your specifications along with the wage determination. The General/Prime Contractor is responsible for getting this form filled out and returned to this office within 30 days of the Notice to Proceed for this project.

When you issue the Notice to Proceed for this project, please send a copy of the notice to my office.

If you have any questions, please call me at (501) 682-4536 or fax (501) 682-4508.

Sincerely,

A handwritten signature in cursive script that reads "Lorna Kay Smith".

Lorna K. Smith
Prevailing Wage Division

Enclosures

**Arkansas Department of Labor
Prevailing Wage Determination
HEAVY RATES**

Determination #: 12-275
Expiration Date: 3/21/2013
Survey#: 712-AH05R

Date: 9/21/2012

Project: 2013 Sanitary Sewer Main Line and Service Lateral Lining

Site:

City: Fayetteville, Arkansas

Project County: Washington

CLASSIFICATION	Basic Hourly Rate	Fringe Benefits
Bricklayer/Pointer, Cleaner, Caulker, Stone Mason	\$11.45	\$1.92
Carpenter	\$15.50	\$0.40
Concrete Finisher/Cement Mason	\$11.45	\$1.92
Electrician/Alarm Installer	\$21.30	\$7.81
Ironworker (Including Reinforcing Work)	\$16.30	
Laborer	\$10.75	
Pipelayer	\$11.80	\$2.61
Truck Driver	\$12.85	
Asphalt Paving Machine	\$11.45	\$1.92
Backhoe - Rubber Tired (1 yard or less)	\$14.55	\$1.60
Bulldozer, finish	\$14.60	
Bulldozer, rough	\$11.45	\$1.92
Distributor	\$11.45	\$1.92
End Dump (Dump Truck)	\$12.90	
Front End Loader, finish	\$13.70	
Front End Loader, rough	\$11.45	\$1.92
Mechanic	\$14.70	
Motor Patrol, finish	\$11.45	\$1.92
Motor Patrol, rough	\$11.45	\$1.92
Roller	\$11.45	\$1.92
Scraper, finish	\$11.45	\$1.92
Scraper, rough	\$11.45	\$1.92
Crane, Derrick, Shovel, Dragline & Backhoe	\$14.90	
Excavator/Trackhoe	\$14.35	\$1.75

Welders-receive rate prescribed for craft performing operation to which welding is incidental.

Certified 8/1/2012

Classifications that are required, but not listed above, must be requested in writing from the Arkansas Department of Labor, Prevailing Wage Division. Please call (501) 682-4536 for a request form.

STATEMENT OF INTENT TO PAY PREVAILING WAGES

PROJECT: **2013 SANITARY SEWER MAIN LINE AND SERVICE LATERAL LINING
FAYETTEVILLE, ARKANSAS
WASHINGTON COUNTY**

This is to certify that we, the following listed contractors, are aware of the wage requirements of the Arkansas Prevailing Wage Law and by signature below indicate our intent to pay no less than the rates established by **Arkansas Prevailing Wage Determination Number 12-275** for work performed on the above noted public project. I understand that contractors who violate prevailing wage laws, i.e., incorrect classification/scope of work of workers, improper payments of prevailing wages, etc., are subject to fines and will be required to pay back wages due to workers.

Business Name	Address	Phone#	Signature and Title of Business Official
General/Prime Contractor			
Electrical Subcontractor			
Mechanical Subcontractor			
Plumbing Subcontractor			
Roofing/ Sheet Metal Subcontractor			

THE GENERAL/PRIME CONTRACTOR IS RESPONSIBLE FOR GETTING THIS FORM FILLED OUT AND RETURNING IT TO THE ARKANSAS DEPARTMENT OF LABOR **WITHIN 30 DAYS OF THE NOTICE TO PROCEED** FOR THIS PROJECT. RETURN COMPLETED FORM TO THE ARKANSAS DEPARTMENT OF LABOR, PREVAILING WAGE DIVISION, 10421 W. MARKHAM, LITTLE ROCK, ARKANSAS, 72205.