FAYETTEVILLE PUBLIC WORKS COMMISSION

PROCUREMENT DEPARTMENT

https://www.faypwc.com/bids/

Bid Addendum

PWC Number:	PWC2526023
Bid Title:	Water Main Replacement and Rehabilitation
Bid Opening Date and Time:	October 7, 2025 @ 2:00 p.m.
Addendum Number:	1
Addendum Date:	September 30, 2025
Procurement Advisor:	*Shelby Lesane* *procurement@faypwc.com*

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1. Return one properly executed copy of this addendum with bid response or prior to the Bid Opening Date/Time listed above.

2. The solicitation is hereby modified as follows:

   M1. **Section A – Contractor Qualification Form** has been updated and replaced, as attached to this addendum.

   M2. **Section D – Technical Specification 02680 – Epoxy Lining** has been updated and replaced, as attached to this addendum.

   M3. **Section A – Bid Pricing Form** has been updated and replaced, as attached to this addendum.

3. Following are questions received about the solicitation and the SME's answers to the questions.

   Q1. How do you price fitting for 16" with no 16" main on the plans?
   A1. Base your pricing for 16" off of the estimated qty at 3.5' bury depth to the top of pipe. Fittings are incidental to the cost of the pipe.

   Q2. Is it PWC or the contractors responsibility for the DOT encroachment bonds?
   A2. These will be handled by Change Order since the DOT Encroachment Bonds have to be in the Contractors name. PWC will reimburse the Contractor for the cost of the Bond.

   Q3. Is the grout fill water main price one price or priced by pipe size?
   A3. The grout fill of water mains is one price.

   Q4. The listed products (GEOPOX GX014, Copon Hycote 162PWX, Hunting Waterline Epoxy 8100) are no longer made. We'd like to use Warren Environmental 301-01 as an equal alternative.

   A4. Warren Environmental 301-01 will be accepted.

   Q5. The spec references the WRc Manual (a European standard).Can we confirm that the work should follow the latest AWWA C620 standard instead? That's the current U.S. standard.

   A5. The work shall follow the latest AWWA C620 standard. Please see Revised Spec.

   Q6. The form calls for 500,000 LF of water main rehab in the last 3 years. (Water Main Rehabilitation Contractor Qualification Form - page 2) Does that need to cover both install and epoxy lining, or does any water main rehab (including replacement/installation) count?

A6. The Water Main Rehabilitation Contractor Qualification Form pertains only to the lining portion of this bid.

Q7. (Water Main Rehabilitation Contractor Qualification Form - page 6) The lining sub requirement is 700,000 LF. Is that meant to be within the last 5 years, or cumulative? Since this project is mostly replacement/installation, would you consider lowering that to 200,000 LF within the last 5 years?

A7. See revised Water Main Rehabilitation Contractor Qualification Form

Q8. (Water Main Rehabilitation Contractor Qualification Form - page 8) The current requirement is 500,000 LF in 5 years. Could this be reduced to 50,000 LF in 5 years? We think that's a better fit for the project scope.

A8. See revised Water Main Rehabilitation Contractor Qualification Form

Q9. Can a traffic control pay item be added to the bid form, ideally measurable by the hour or day?

A9. Traffic Control is considered an incidental to the installation of the water main and cleaning and lining of the water main. Please see Measurement and Payment 2.01 Furnish and Install Water Main and 3.02 Water Main Cleaning and Lining.

Q10. To give subs (especially MBE/WBE) time to send in quotes and help us put together the most competitive bid, we would like to request that the bid date be postponed from October 7 to October 16.

A10. The bid date will not be revised or postponed.

Attachments:

1. Non-Mandatory Pre-Bid Meeting Minutes
2. Contractor Qualification Form
3. Technical Specification 02680 – Epoxy Lining
4. Bid Pricing Form

Failure to acknowledge receipt of this addendum may result in rejection of the response.

Check ONE of the following options:

☐ Bid has not been mailed. Any changes resulting from this addendum are included in our bid response.

☐ Bid has been mailed. No changes resulted from this addendum.

☐ Bid has been mailed. Changes resulting from this addendum are as follows:

Execute Addendum:

Offeror: _____

Authorized Signature: _____

Name and Titled (Typed): _____

Date: _____

FAYETTEVILLE PUBLIC WORKS COMMISSION
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Water Main Replacement and Rehabilitation Project
Pre-Bid Conference
September 22, 2025, 2:00 pm
Skills Lab, PWC Administration Building

Introductions

1. Contract Items
    a. Project Overview
    b. Contract duration – One (1) year from NTP
    c. Renewable Contract
        i. Renewed on a yearly basis from NTP
        ii. Maximum Two (2) renewals
    d. Bonds required
    e. Required Forms (see attached)
2. Qualifications
    a. Licensed Utility Contractor in NC
        i. Public Utilities (Water and Sewer) - Unlimited
        ii. Unclassified - Unlimited
    b. Requirements outlined in Water Main Rehabilitation Contractor Qualification Form
    c. Submit qualifications with bid (complete form and attach supporting documentation)
3. **MWDBE & SLS Participation Requirements:**
    a. PWC has adopted a new MWDBE Program that promotes utilizing MWDBE and HUB businesses for PWC, which became effective July 1, 2023. The entire program and documents are within the contract documents.
    b. The MWDBE Program requires bidders to solicit MWDBE and HUB businesses and report any efforts to do so. A link to the DBE and HUB online directory can be found in the bid packet.
    c. PWC's geographical statistical area for the MWDBE Program is NC DOT Regions 3-8 and 10.
    d. This project has an aspirational goal of 14% MBE and 11% WBE.
    e. All MWDBE documents required to be submitted with the bid are marked as such. Good faith opportunity and subcontractor utilization efforts can be documented in the MWDBE forms provided in the contract documents. It is encouraged for bidders to provide these efforts at the time of the bid submittal but is not required. The Program staff will reach out to the lowest responsive, responsible bidder to obtain the good faith efforts evidence if not included in the bid package, and at that time the bidder is required to provide the documentation within 24 hours or the following business day.

f. The awarded bidder is required to comply with the Program requirements and turn in subcontractor payments on the SLS/MWDBE forms with each pay application to include the final pay application. Non-compliance with subcontractor utilization or payment reporting may result in delays in pay application review and payments.
g. PWC also values the participation of local vendors in our procurements. We encourage contractors to consider the use of local vendors whenever possible and identify such with your bid. PWC's Metropolitan Statistical Area (MSA) for local are Cumberland, Hoke, and Harnett Counties Local vendor payments should also be included with subcontractor payment reporting.
h. Bidders with Program questions or bidders that need additional assistance locating MWDBE and HUB businesses may contact EI Program via email at eiprogram@faypwc.com. Please include the type of subcontracted work and/or NAICS code(s) in the request.

4. Construction Issues

a. Customer Service
b. Working Times
c. Subcontractors
d. Staging Areas
e. Pavement Patching
f. Testing and Disinfection
g. Replacement of Services
h. Water Outages
i. Erosion Control

5. Schedule

a. Questions due Friday, September 26, 2025, @ 4:00 pm – must be submitted in writing. No phone calls.
b. Addenda (as necessary), issued Tuesday, September 30, 2025, 4:00 pm
c. Bids due 2:00 pm, Tuesday, October 7, 2025
d. Anticipate NTP February 2026

6. Questions

WATER MAIN REHABILITATION
CONTRACTOR QUALIFICATION FORM

*****MUST BE COMPLETED AND INCLUDED WITH BID*****

Fayetteville PWC reserves the right to request information from the contractor to complete its assessment of the contractor or subcontractors qualifications. Partially complete forms may be considered non-responsive based on the quantity and quality of information provided. Wholly incomplete forms will be considered non-responsive and will result in rejection of the bid.

CONTRACTOR DOCUMENTATION	
(1) Name of **Prime Contractor** and **NC License Number**:	Name: NC License No.:
a. Within the **last five (5) years**, has the contractor been involved in any judgments, claims, or arbitration with regard to construction contracts **If so, provide list and describe each event fully. Attach additional information, as necessary.**	☐Yes (provide list and describe each event fully) ☐No
b. Within the **last five (5) years**, has any officer or principal of the organization ever been an officer or principal of another organization when it failed to complete a construction contract? **If so, provide list and describe each event fully. Attach additional information, as necessary.**	☐Yes (provide list and describe each event fully) ☐No
(2) Name of **Water Main Lining Subcontractor (if applicable)** (If Prime Contractor intends to complete all work, skip to Item 3)	Name: NC License No.:
a. Within the **last five (5) years**, has the subcontractor been involved in any judgments, claims, or arbitration with regard to construction contracts **If so, provide list and describe each event fully. Attach additional information, as necessary.**	☐Yes (provide list and describe each event fully) ☐No
b. Within the **last five (5) years**, has any officer or principal of the subcontractor's organization ever been an officer or principal of another organization when it failed to complete a construction contract? **If so, provide list and describe each event fully. Attach additional information, as necessary.**	☐Yes (provide list and describe each event fully) ☐No

(3) Provide list of other **Subcontractors** and field of specialty (paving, excavation, etc.), if applicable. Additional subcontractors can be attached to the qualifications form, if necessary.	
a. Subcontractor Name:	
Specialty:	
b. Subcontractor Name:	
Specialty:	
c. Subcontractor Name:	
Specialty:	
d. Subcontractor Name:	
Specialty:	

WATER MAIN LINING CONTRACTOR EXPERIENCE AND RESOURCES

***NOTE: The following information (Items 1 and 2) SHALL be completed by Prime Contractor if the water main lining will be completed with its own forces.**

1. The water main lining contractor shall be trained and certified to operate the water main lining equipment with at least **five (5) years** of experience in lining obtained over the last five **(5) years**. The water main lining contractor shall have a minimum of 1**00,000 linear foot (LF)** of lining experience. Provide not less than four (4) references within the last five (5) years in the United States to document the water main lining subcontractor's ability and qualifications on projects of similar size and scope. A minimum of **three (3)** of the following projects should be of similar size and scope to this project. Each reference shall be from separate projects.
2. All certifications shall be current. The water main lining subcontractor shall complete the lining installation utilizing its own equipment and labor forces. The lining superintendent shall be an employee of the water main lining subcontractor. **SECOND TIER SUBCONTRACTORS WILL NOT BE ALLOWED.** Additional similar projects may be attached at the Contractor's discretion.

A. Project Name:			
Location:			
Superintendent:			
Pipe Size/Material:		Length:	
Start Date:		End Date:	
Client:			
Client Contact Name:		Client Phone:	
Completed with own equipment and labor forces:			☐ Yes ☐No
If "No" was checked above, provide name of the Contractor completing work:			

Scope/**Project Cost**/Additional Information:			
B. Project Name:			
Location:			
Superintendent:			
Pipe Size/Material:		Length:	
Start Date:		End Date:	
Client:			
Client Contact Name:		Client Phone:	
Completed with own equipment and labor forces:			☐ Yes ☐No
If "No" was checked above, provide name of the Contractor completing work:			
Scope/**Project Cost**/Additional Information:			
C. Project Name:			
Location:			
Superintendent:			
Pipe Size/Material:		Length:	
Start Date:		End Date:	
Client:			
Client Contact Name:		Client Phone:	
Completed with own equipment and labor forces:			☐ Yes ☐No
If "No" was checked above, provide name of the Contractor completing work:			
Scope/**Project Cost**/Additional Information:			
D. Project Name:			
Location:			
Superintendent:			
Pipe Size/Material:		Length:	
Start Date:		End Date:	
Client:			

Client Contact Name:		Client Phone:	
Completed with own equipment and labor forces:			☐ Yes ☐No
If "No" was checked above, provide name of the Contractor completing work:			
Scope/**Project Cost**/Additional Information:			
E. Project Name:			
Location:			
Superintendent:			
Pipe Size/Material:		Length:	
Start Date:		End Date:	
Client:			
Client Contact Name:		Client Phone:	
Completed with own equipment and labor forces:			☐ Yes ☐No
If "No" was checked above, provide name of the Contractor completing work:			
Scope/**Project Cost**/Additional Information:			

WATER MAIN LINING SUPERINTENDENT EXPERIENCE AND RESOURCES

***NOTE: The following information (Items 1 through 3) SHALL be completed by Prime Contractor if the water main lining will be completed with its own forces.**

1. Provide the name of the **proposed water main lining subcontractor superintendent and proposed crew leaders/foremen** who are qualified and available to perform the work stated in this proposal:	Proposed Superintendent:	Certified and Trained: ☐ Yes ☐No
	Crew:	☐ Yes ☐No

IF YOU PLAN TO HAVE MORE THAN ONE SUPERINTENDENT, THEN FILL OUT THIS FORM FOR EACH PROPOSED SUPERINTENDENT.

2. All water main lining operations shall be performed under the constant direction of a superintendent employed by the water main lining subcontractor who shall remain on site and be in responsible charge throughout the lining operation. The supervisor shall, in the **last five (5) years**, have successfully supervised a **minimum of 100,000 linear feet (LF)** of pipe rehabilitated via water main lining of which 5**0,000 linear feet (LF)** shall be of similar or greater diameter, of similar scope, and of similar or greater lengths as proposed on this project. The references should be from separate projects. Additional projects may be attached to meet the qualification requirements.

****The linear footage (LF) in the following Superintendent's References DOES NOT COUNT towards the WATER MAIN LINING CONTRACTOR EXPERIENCE AND RESOURCES total numbers above.****

A. Project:			
Start Date:		End Date:	
Pipe Size/Material:		Length:	
Client:			
Client Contact Name:		Client Phone:	
B. Project:			
Start Date:		End Date:	
Pipe Size/Material:		Length:	
Client:			
Client Contact Name:		Client Phone:	
C. Project:			
Start Date:		End Date:	
Pipe Size/Material:		Length:	
Client:			
Client Contact Name:		Client Phone:	
D. Project:			
Start Date:		End Date:	
Pipe Size/Material:		Length:	
Client:			
Client Contact Name:		Client Phone:	
E. Project:			
Start Date:		End Date:	
Pipe Size/Material:		Length:	
Client:			
Client Contact Name:		Client Phone:	

3. Provide a list of applicable equipment **(including make/model/size/quantity) <u>owned</u> by the water main lining contractor (or the Prime Contractor, should the Prime Contractor complete the lining)** that will be utilized to complete the **lining** scope of work:			
A. **Equipment:**			
Make:			
Model:		Year:	
Size:		Quantity:	
B. **Equipment:**			
Make:			
Model:		Year:	
Size:		Quantity:	
C. **Equipment:**			
Make:			
Model:		Year:	
Size:		Quantity:	
D. **Equipment:**			
Make:			
Model:		Year:	
Size:		Quantity:	
E. **Equipment:**			
Make:			
Model:		Year:	
Size:		Quantity:	
F. **Equipment:**			
Make:			
Model:		Year:	
Size:		Quantity:	
G. **Equipment:**			
Make:			
Model:		Year:	
Size:		Quantity:	
H. **Equipment:**			
Make:			
Model:		Year:	
Size:		Quantity:	
I. **Equipment:**			
Make:			
Model:		Year:	
Size:		Quantity:	
J. **Equipment:**			
Make:			
Model:		Year:	
Size:		Quantity:	

ADDITIONAL ITEMS	
The following items shall be submitted as attachments with the Bid:	
a. The Contractor and/or subcontractor shall be certified and/or licensed as an installer by the manufacturer of the lining system. The **Contractor and/or subcontractor shall submit** a certified statement from the manufacturer that they are certified and/or licensed installer of the epoxy lining material.	
b. All manufacturers of epoxy lining shall be ISO 9001 or 9002 certified for the manufacturing of the epoxy lining system for a potable water distribution system, and **shall submit** proof of certification.	
c. Number of years of experience in performing this type of work:	
d. Number of years of experience installing proposed lining system:	
e. The Prime Contractor and must provide most recent W3 Transmittal of Wage and Tax Statement indicating wages and taxes paid by employer.	
f. Affidavit stating any OHSA violations occurring in the past three (3) years.	
g. A statement provided by the Surety Company stating the Bidder's bonding limit and a statement of the amount of work currently under bond.	
The Owner may conduct such investigations/verifications as deemed necessary to establish the responsibility, qualification and financial ability of the Bidder. Should the Owner adjudge that the apparent low bidder is not the lowest responsive, responsible bidder by virtue of the above information furnished, said apparent low bidder will be so notified and his bid security shall be returned to him without prejudice. Failure or refusal to furnish any items of information requested by the Owner shall be considered as non-responsive and therefore basis for rejection of the bid.	
Submitted By (print):	Date:
Title:	
Company:	
Signature:	

DIVISION 2
SITE WORK

02680 EPOXY LINING OF WATER MAINS

SCOPE

The intent and purpose of these specifications is to require a complete and satisfactory rehabilitation of existing water mains utilizing an epoxy lining system. The Contractor shall furnish all necessary labor, materials, equipment, services, and incidentals necessary to rehabilitate the existing water mains using epoxy lining. Any defects in material or installation shall be cause for the replacement and correction of such defect as directed by the PWC Project Engineer at no expense to the Public Works Commission.

RELATED SECTIONS

A. Section 02222 – Excavation, Trenching, and Backfill for Utility Systems
B. Section 02272 – Erosion Control - General Provisions
C. Section 02660 – Water Distribution
D. Section 02760 – Television Inspection

QUALITY ASSURANCE

The Contractor is solely responsible for quality assurance during the length of the project. The Contractor shall be responsible for any costs associated with corrective measures required to replace or repair items not meeting the quality standards specified by the Public Works Commission.

WARRANTY

The Contractor shall warrant to the Public Works Commission that the equipment used on this Contract where covered by patents or license agreements is furnished in accordance with such agreements and that the prices included herein cover all applicable royalties and fees in accordance with such license agreements. The Contractor shall defend, indemnify and hold the Public Works Commission harmless from and against any and all costs, loss, damage or expense arising out of or in any way connected with any claim of infringement of patent, trademark or violation of license agreement.

MATERIALS

EPOXY RESIN LINING

The epoxy resin and hardener shall be certified by The National Sanitation Foundation (NSF) International - Standard 61. When properly applied, it shall produce a smooth finished lining with a minimum of 40 mils dry film thickness (DFT) after 16 hours cure time. The epoxy lining shall be approved for use in potable water mains 1-inch and larger in diameter. The epoxy lining shall be a two component, solvent free, moisture tolerant, VOC, and benzyl alcohol free system.

The epoxy lining system shall be packaged in clearly distinguishable colors, which when uniformly mixed, give a distinctive third color to provide a visual check of proper mixing. The

epoxy lining system shall be supplied in clearly marked containers. Each container shall be marked with a batch number, date of manufacture, shelf life information, mix ratio and instructions for storage and safe handling.

The epoxy lining system shall be GEOPOX GX014 as manufactured by the Mercol Products LTD, Copon Hycote 162PWX by E. Wood Ltd., Hunting Waterline Epoxy 8100 by Hunting Industrial Coatings, or an approved equal.

All manufacturers of epoxy lining must be ISO 9001 or 9002 certified for the manufacturing of epoxy lining for a potable water distribution system, and will be required to furnish evidence of such certification.

EQUIPMENT

The lining equipment shall be certified by the epoxy manufacturer and shall be manufactured in accordance with the latest revision of the AWWA Standard C620-19 Spray in Place Polymeric Lining for Potable Water Pipelines 4" and larger. The equipment shall be suitable for storing, heating, mixing and applying the epoxy material in accordance with the epoxy manufacturer's requirements. All key components on the lining application equipment shall be calibrated in accordance with the equipment manufacturer's instructions and requirements.

Each lining rig shall have facilities to store the epoxy resin and hardener separately and to heat both according to the manufacturer's instructions. The lining rig shall provide devices to re-circulate the components in the reservoirs and through the lining hoses prior to lining.

The lining rig shall use suitable positive displacement pumps capable of dispensing the two components separately at the correct mix ratio. The rig shall be fitted with facilities for monitoring and recording the flow rates of both materials and the mix ratio, and provide a hard copy printout of this information. The output of the pumps shall be linked to the winch speed control to ensure that the correct thickness of lining is applied to each pipe diameter.

INSTALLATION

GENERAL

All work under this Contract shall be performed by skilled workmen experienced in similar installations, with the best current accepted practices of the building trades, and to all applicable codes.

The Contractor shall carry out their operations in strict accordance with all applicable OSHA, local and state safety standards. Though the installation process may be licensed or proprietary in nature, the Contractor shall not change any material, thickness, design values or procedural matters stated in the submittals, without the prior knowledge and written approval of the Public Works Commission. The Contractor shall submit, in writing, full details about component materials, their properties and installation procedures and abide by them fully during the entire course of work.

PIPE CLEANING

The Contractor shall clean the water mains by either the drag scrape or power bore method. The cleaning device shall be designed for the size of pipe to be cleaned. The Contractor shall

furnish all the necessary tools, equipment, materials, back flow prevention devices and other appurtenances to readily complete this operation, including all dewatering of the water mains, which may not completely drain.

The Contractor shall ensure that rollers are fitted on the pipe to prevent possible damage to the pipe crown by the winch cables during drag cleaning operations.

Should drag scraping be utilized as the cleaning method, a foam swab shall be 'washed' through the cleaned pipe prior to drying and CCTV inspection. The foam swab shall be propelled through the entire length of the cleaned pipe with the use of water or compressed air.

The Contractor is required to dispose of any cleaning water and solid residue resulting from the cleaning operations in accordance with the applicable regulations and ordinances. The Contractor shall be responsible for obtaining the required approvals and permits for the disposal of the waste materials. Cleaning water shall not be discharged into storm drains, the sanitary sewer system, or onto the ground surface. The Contractor shall minimize to the view of the public, the materials removed in the cleaning operations including the flushing water.

The inside of the pipe and fittings shall be thoroughly cleaned and flushed of all material to as smooth and clean a surface as possible. All cleaned pipe and fittings shall meet the latest revision of AWWA Standard C602. Any sections of the pipe and fittings, which do not meet the above AWWA Standard, shall be re-cleaned.

The Contractor shall complete a CCTV inspection at the completion of the cleaning, prior to lining. The CCTV inspections shall be used by the Contractor to verify the degree of cleanliness of all pipe and fittings. The Contractor shall keep the Project Coordinator informed of when CCTV inspection is forthcoming so the Project Coordinator can be present. No epoxy lining shall be placed until the interior surface is inspected and found to be clean and dry. Any unknown fittings discovered during the television inspection shall be removed prior to lining the pipe and will be paid for with the "Remove Obstruction in Existing Pipe" Pay Item. The Contractor shall provide the video and output report to the Public Works Commission monthly with pay estimate. The video format and storage media shall be as approved by the Public Works Commission.

No payment will be made until all videos have been submitted and reviewed by the Public Works Commission.

Any section of the water main, such as near gate valves, short radius bends, ends of sections, and other areas that are inaccessible for machine cleaning shall be cleaned by hand. The degree of cleanliness for handwork shall be the same or better than results obtained from machine work. Rust, tubercles, deposits, old bituminous lining, etc., shall be completely removed by machine or hand in order to expose a clean surface for correct lining operations.

PIPE LINING

The Lining Supervisor and Lining Rig Operator shall be fully trained in the operation and understanding of the entire Epoxy Resin Lining application process, and shall be certified by an Approved Certifying Body.

The Contractor shall conduct pre-lining checks on the lining equipment and epoxy in accordance with the manufacturer's recommendations. Included shall be verification of pump output, mix

ratio, and material temperatures. This information and all pertinent site information shall be recorded on a lining sheet form. **A separate Epoxy Record Lining form shall be completed for each separate lining run and turned over to the Public Works Commission upon completion of the lining**.

Prior to inserting the delivery hoses into the main, the epoxy components shall be pumped and re-circulated until the uniform operating temperature, specified by the epoxy manufacturer has been reached. The pumping is then discontinued, the hoses immediately pulled through the pipe, and the lining operation begun without delay.

Once the hoses are inserted, the approved static mixer and application head are connected and checked for proper operations. The correct mixing of the two-epoxy components shall be visually checked by test spraying the mixed epoxy into a container outside the pipeline and the observed epoxy color recorded on the lining record sheet.

Application of the epoxy lining may begin when the Lining Rig operator is satisfied that the material flows are established and the epoxy lining color is consistent. The minimum lining thickness of 40 mils (DFT) shall be achieved in a single application. Any lined pipes shown to have a thickness of less than 40 mils at any point on the Record Lining Sheet shall be re-lined. Epoxy lining shall not be placed when the pipe temperature is below 38 degrees Fahrenheit.

The Contractor shall dispose of all excess epoxy and cleaning agents in accordance with all applicable Local, State, and Federal rules and regulations.

CURING

Immediately after the epoxy lining has been applied, the ends of the main shall be capped in order to prevent contamination and/or water from entering the pipe. Cure time shall be in accordance with the epoxy manufacturer's specifications.

LINING FAULTS

The latest edition of the AWWA Standard C620-19 Spray in Place Polymeric Lining for Potable Water Pipelines 4" and larger will govern regarding acceptable and unacceptable lining faults and suggested methods of correction. All repairs shall be reviewed and approved by the Public Works Commission, prior to the Contractor commencing the repairs.

RESTORATION

All backfill shall be in accordance with Specification Section 02222 – Excavation, Trenching, and Backfilling for Utility Systems, and the requirements outlined in these Contract Documents. All trenches and excavations shall be compacted in accordance with these Contract Documents.

Prior to backfilling lateral and access pits, the Contractor shall ensure that the new pipe and service laterals are properly supported and on the correct line and grade. Stone or other suitable material, as approved by the Public Works Commission, shall be utilized under the new pipe to provide support and prevent sagging after backfill and compaction.

All work areas and rights-of-way shall be cleaned up, properly graded and vegetated, free of debris, and left in condition satisfactory to the Public Works Commission.

LINING INSPECTION

The Contractor shall provide the PWC Project Coordinator the opportunity to visually inspect and measure the lining thickness of both ends of each lining run. The Contractor shall complete a post-installation CCTV inspection for the Public Works Commission to determine the acceptability of the installation. The CCTV inspection shall be completed prior to placing the main into service. The Contractor shall video and record the lined pipe after the curing time period using a CCTV color camera with self-contained lighting, and remote focus. Lighting for the camera shall be suitable to allow a clear picture for the entire periphery of the pipe. The speed of the camera through the main shall be at a rate that ensures the entire pipe bore can be properly inspected. The camera shall be a color pan and tilt and the picture quality and definition shall be to the satisfaction of the PWC Project Engineer.

Videos shall be standard digital video file format and shall become property of Public Works Commission upon completion of project. All videos shall be properly labeled on outside with the project name, contractor's name, date, street name and block numbers or addresses. The onscreen display shall show date cleaned and lined, date CCTV inspected, street, block numbers or addresses, pipe diameter and material, and shall show the distance traveled. The counter shall be set to zero at the beginning of each run. All required information shall be entered on the Epoxy Resign Lining sheet. A CCTV Inspection Record for each run shall be completed and submitted to the Public Works Commission.

The purpose of recording the television inspection is to supply a visual aid and audio record of the inspection that may be re-played by the Public Works Commission. Video recording playback shall be at the same speed that it was recorded. All video recordings shall be in color and shall be made in digital video file format.
Upon completion of the lining, the Contractor shall seal the ends of the lined main in order to eliminate water from entering the lined main. Any water that enters the lined main shall be removed prior to conducting the post-rehabilitation television inspection.

EQUIPMENT

The television camera used for the inspection shall be one specifically designed and constructed for such inspection. Lighting for the camera shall be suitable to allow a clear picture for the entire periphery of the pipe. The camera shall be operative in 100 percent humidity conditions. The camera, television monitor, and other components of the video system shall be capable of producing a minimum 500-line resolution video picture. Picture quality and definition shall be to the satisfaction of the Public Works Commission, and if unsatisfactory, inspection shall be performed again with the appropriate changes made as designated by the Public Works Commission, at no additional cost. The television inspection equipment shall have an accurate footage counter that shall display on the monitor, the exact distance of the camera from the centerline of the starting access pit.

PROCEDURE

The camera shall be moved through the line in either direction at a uniform rate, stopping when necessary to ensure proper documentation of the water main's condition, but in no case will the television camera be pulled at a speed greater than 30 feet per minute. Manual winches, power winches, TV cable, and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the conditions shall be used to move the camera through the water main. If during the inspection operation, the television camera will not pass

through the entire water main section, the equipment shall be removed and repositioned in a manner so that the inspection can be performed from the opposite access pit. All set-up costs for the inspection shall be included in the unit prices bid. If, again, the camera fails to pass through the entire section, the Contractor shall remove any obstructions or re-clean the main. Re-cleaning shall be done at no additional cost to the Public Works Commission.

Whenever non-remote powered and controlled winches are used to pull the television camera through the line, telephones, radios, or other suitable means of communication shall be set up between the two access pits of the water main being inspected to ensure that good communications exist between members of the crew.

The camera height shall be adjusted such that the camera lens is always centered (at one-half the ID) in the pipe being inspected.

RECORD OF VIDEO AND LOGS

Prior to returning any main to service, the Contractor shall allow the Project Coordinator sufficient opportunity to examine the relevant documentation of all lining runs, to ensure compliance with the Operational Requirements and Code of Practice Manual. The Contractor and Project Coordinator shall sign off on all approved documentation. Copies of all documentation shall be submitted on a monthly basis as part of the Contractor's pay request. Pay requests will not be processed until all documentation for the area being billed is submitted.

The following completed sheets shall be provided for every lining run:

- Epoxy Resin Lining Record, to include a copy of the rig printout and dip cards.
- CCTV Inspection Record, to include video recordings

The following sheets shall be provided when circumstances dictate:

- Non-Conformance Record – to report any defects experienced during lining
- Pipe Sample Quality Record – for each pipe sample exhumed
- Spin-Up Determination Record

A copy of each record sheet is located in the Appendix of these Contract Documents. The Contractor shall copy and use these sheets for submittals. No variation of these record sheets shall be utilized, unless specifically approved in writing by the Public Works Commission.

A. Television Inspection Logs

Printed location records shall be kept which shall clearly show the location, in relation to adjacent access pits, of service connections, tees, hydrant branches, and other items of significance. Additionally, unusual conditions, offset joints, cracked or collapsed sections, water main sections that the camera failed to pass through and reasons for the failure and other discernible features shall be recorded and a copy of such records shall be furnished to the Public Works Commission.

B. Video Recordings

The purpose of recording the inspection is to supply a visual aid and audio record of problem areas of the lines that may be re-played by the Public Works Commission. Video recording playback shall be at the same speed that it was recorded. All video recordings shall be in color. Initial pre and post video recordings shall be supplied in a standard digital video file format (i.e., mp4, mpg, or AVI) and supplied on standard portable digital media (i.e., USB flash drive, USB hard disk drive, DVD) as approved the Public Works Commission.

The Contractor shall furnish the video and logs of the pre and post video inspections to the Public Works Commission at each of the progress meetings. The Contractor shall pre-screen the videos and note any areas of concern, including, but not limited to: potential point repairs, offset joints, and obstructions that may pose problems with the lining process. The Contractor shall provide the Public Works Commission with a minimum of two weeks' notice for any potential repairs that are necessary to proceed with the work.

At the completion of each task order, the Contractor shall provide the Public Works Commission with digital videos and logs containing the pre and post tapes for all work completed during that task order. Each digital media device shall be labeled as to its contents. Labels shall include the disc number, date televised, water main segment reach designation, and street location on the disc. The digital media device shall be provided to the Public Works Commission within 30 days of completing the work authorized in the task order.

TESTING

All testing shall be in accordance with the applicable Specification Section governing water and/or sewer. All testing shall be satisfactorily completed prior to placing the system into service. All mains and laterals, to include fire hydrants, shall be tested.

Unless otherwise required by the Public Works Commission, lined water mains are not required to be hydrostatically tested. All lined water mains shall be chlorinated and disinfected, in accordance with PWC requirements.

ACCEPTANCE

Acceptance of the installed mains and laterals shall be based on conformance with the requirements herein, the Public Works Commission's review of all required construction submittals (as-builts, logs, CCTV inspection, etc.) and results of all testing.

00300 - BID FORM

TO: **Fayetteville Public Works Commission**
Attn: Shelby Lesane, Procurement Advisor II
955 Old Wilmington Road
Fayetteville, North Carolina 28301

PROJECT: **PWC2526023 – WATER MAIN REPLACEMENT AND REHABILITATION**

FROM: BIDDER _____

ADDRESS _____

_____

DATE OF BID _____ , 20 ____

A. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into a Contract with OWNER in the form included in the Contract Documents to perform and furnish all Work (as that term is defined in the Construction Agreement) specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the Contract Documents.

B. BIDDER accepts all of the terms and conditions of the Instructions to Bidders, including, without limitation, those dealing with the disposition of payment and performance bonds, and insurance certificates. This bid will remain open for ninety (90) calendar days after the day of Bid opening. BIDDER will sign the Contract and submit the Contract Security and other documents required by the Contract Documents within ten (10) days after the date of receipt by the BIDDER.

C. In submitting this Bid, Bidder represents, as more fully set forth in the Contract, that:

1. BIDDER has examined copies of all the Contract Documents and of the following addenda, receipt of all which is acknowledged on the bid summary page:

2. BIDDER has examined the site and locality where the Work is to be performed, the legal requirements (federal, state, and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress of performance of the work and has made such independent investigations as BIDDER deems necessary.

3. BIDDER acknowledges that OWNER does not assume responsibility for the accuracy of dimensions or completeness of information and data shown or indicated in the Bidding Documents with respect to existing facilities.

4. BIDDER has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site of the Work (expect underground facilities) and all drawings of physical conditions in or relating to existing surface or

subsurface structures, pipelines, and utilities at or contiguous to the site are provided within these Contract Documents. Geotechnical Reports and other information regarding subsurface conditions are identified in the attached appendices and detailed in Article V of the PWC General Conditions. BIDDER acknowledges that the OWNER does not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Bidding Documents with respect to underground facilities at or contiguous to the site of Work. BIDDER had obtained and carefully studied (or assumes responsibility for have done so) all such additional or supplementary examinations investigations, explorations, tests, studies, and data that are necessary to identify and understand conditions (surface, subsurface, and underground facilities) at or contiguous to the site of Work or otherwise which may affect cost, progress, performance, or furnishing the Work or which relate to any aspect of means, methods, techniques, sequences, and procedures of construction to be employed by Bidder and safety precautions and programs incident thereto. BIDDER waives all rights to claim that any additional examinations, investigations, explorations, tests, studies, or data are necessary for the proper submission of the Bid for the performance and furnishing of the Work in accordance with the Contract Time, Contract Price, and other terms and conditions of the Contract Documents.

5. BIDDER hereby certifies that, if awarded the Contract for construction of the Project, it will take all possible actions to minimize costs to the OWNER which are related to any disruptions in any part of the Work resulting from unforeseeable conditions which may be encountered and work changes or additions which may be made.

6. BIDDER has correlated the information known to BIDDER, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, exploration, tests, studies, and data with the Contract Documents.

7. BIDDER has given OWNER written notice of all conflicts, errors, ambiguities, or discrepancies that BIDDER has discovered in the Contract Documents and the written resolution thereof by OWNER is acceptable to BIDDER, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.

8. By bidding in response to this invitation, the BIDDER represents that in the preparation and submission of this Bid, said BIDDER did not, either directly or indirectly, enter into any combination or arrangement with any person, firm or corporation or enter into any agreement, participate in any collusion, or otherwise take any action in the restraint of free, competitive bidding in violation of the Sherman Act (15 U.S.C. Section 1).

9. Bid form must be completed in blue or black ink or by typewriter. The Bid price of each item on the form must be stated in both words and numerals. In case of a

conflict, words shall take precedence. Discrepancies in the multiplication of units of work and unit prices will be resolved in favor of the correct multiplication of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

10. BIDDER understands that the award of contract will be made on the basis of the total Bid amount which will be determined as the sum of the unit price and lump sum Bid Items.

11. BIDDER understands that quantities are estimated and are not guaranteed; they are solely for comparing Bids and establishing the total Bid amount. The Price will be modified by Change Order, and final payment will be based on the quantities of work actually furnished and installed by the successful BIDDER.

12. BIDDER shall complete the Work for the prices indicated on the next page.

COMPANY NAME:_____

PWC#2526023

Fayetteville PWC Water Main Rehabilitation						
Item No.	Ref No.	Measurement & Payment Description	Estimated Qty	Unit	Unit Price	Cost Extension
		Incidental Items				
1	1.01	Mobilization and Demobilization	1	LS		
2	1.02	Undercut Excavation	1,000	CY		
3	1.03	Borrow Excavation (Select Backfill)	500	CY		
4	1.04	Remove and Replace Concrete Curb and Gutter	200	LF		
5	1.05	Remove and Replace Asphalt Curb	50	LF		
6	1.06	Asphalt Permanent Patch 2-inch (2-inch Surface Course)	5,000	SY		
7	1.06	Asphalt Permanent Patch 4-inch (2-inch Intermediate, 2-inch Surface Course)	10,000	SY		
8	1.06	Asphalt Permanent Patch 6-inch (4-inch Intermediate, 2-inch Surface Course)	10,000	SY		
9	1.07	Sod	2,000	SY		
10	1.08	Seeding	150	SY		
		Water Main Construction Items				
11	2.01	Furnish and Install New Water Main – Ductile Iron | 16-inch	500	LF		
12	2.01	Furnish and Install New Water Main – Ductile Iron | 12-inch	500	LF		
13	2.01	Furnish and Install New Water Main – Ductile Iron | 8-inch	15,000	LF		
14	2.01	Furnish and Install New Water Main – Ductile Iron | 6-inch	250	LF		
15	2.01	Furnish and Install New Water Main – PVC | 16-inch	500	LF		
16	2.01	Furnish and Install New Water Main – PVC | 12-inch	500	LF		
17	2.01	Furnish and Install New Water Main – PVC | 8-inch	1,000	LF		
18	2.01	Furnish and Install New Water Main – PVC | 6-inch	100	LF		
19	2.02	Furnish and Install New Water Main – PVC | 2-inch	1,000	LF		
20	2.03	Furnish and Install New 16-inch Gate Valve	10	EA		
21	2.03	Furnish and Install New 12-inch Gate Valve	15	EA		
22	2.03	Furnish and Install New 8-inch Gate Valve	60	EA		
23	2.03	Furnish and Install New 6-inch Gate Valve	15	EA		
24	2.04	Furnish and Install New Fire Hydrant Assembly	30	EA		
25	2.05	Remove Fire Hydrant Assembly	30	EA		
26	2.06	Grout Fill Abandoned Water Main - 16" Water Main	500	LF		
27	2.06	Grout Fill Abandoned Water Main - 12" Water Main	1,000	LF		
28	2.06	Grout Fill Abandoned Water Main - 8" Water Main	3,000	LF		
29	2.06	Grout Fill Abandoned Water Main - 6" Water Main	5,000	LF		
30	2.07	Install 2-inch Blow Off	10	EA		
31	2.08	Replace Existing 1" Water Services with Copper	350	EA		
32	2.09	Replace Existing 2" Water Services	20	EA		
33	2.10	Replace Existing 1" Split Water Services with Copper	50	EA		
34	2.11	Temporary Water System | 4-inch Bypass	15,000	LF		
35	2.11	Temporary Water System | 2-inch Bypass	20,000	LF		
		Water Main Lining Items				
36	3.01	Access Pits	20	EA		
37	3.02	Water Main Cleaning/Lining - Class III | 16-inch	100	LF		
38	3.02	Water Main Cleaning/Lining - Class III | 12-inch	300	LF		
39	3.02	Water Main Cleaning/Lining - Class III | 8-inch	500	LF		
40	3.02	Water Main Cleaning/Lining - Class III | 6-inch	500	LF		
41	3.03	Closed Circuit TV Inspection | 16-inch	100	LF		
42	3.03	Closed Circuit TV Inspection | 12-inch	300	LF		
43	3.03	Closed Circuit TV Inspection | 8-inch	500	LF		
44	3.03	Closed Circuit TV Inspection | 6-inch	500	LF		
45	3.04	Remove Obstruction in Existing Line	20	EA		

TOTAL BASE BID:_____