

**North Pecos Water & Sanitation District
Request for Proposal**

**CURED-IN-PLACE-PIPE PROJECT
2018 SANITARY SEWER REHABILITATION**



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REQUEST FOR PROPOSAL
Cured-in-Place Pipe Project
2018 Sanitary Sewer Rehabilitation

North Pecos Water and Sanitation District (District) is requesting sealed proposals from qualified contractors for the rehabilitation of sanitary sewer lines using the Cured-In-Place Pipe (CIPP) process. This Request for Proposal (RFP) is for work to be completed as part of the District's 2018 infiltration and inflow (I&I) reduction program. Lengths and diameters of lines to be rehabilitated are given in the Scope of Work. The District will accept proposals for either standard CIPP liner, or alternatively ultra violet cured fiberglass CIPP liner, as more specifically defined in the following provisions of this RFP.

Written sealed proposals from qualified contractors must be timely received at the North Pecos Water and Sanitation District office, 6900 N Pecos Street, Denver CO.80221, as given in the submittal deadline section of this document.

Technical questions concerning this project should be directed to the District Manager, Russell M. Traska, at 303 429-5770. E-mail Address: manager@northpecoswater.org
Questions regarding proposal submittals or process should be directed to the same.

Sales Prohibited/Conflict of Interest: No officer, employee, or member of the District Board of Directors, shall have a financial interest in the sale to the District of any real or personal property, equipment, material, supplies or services where such officer or employee exercises directly or indirectly any decision-making authority concerning such sale or any supervisory authority over the services to be rendered. This rule also applies to subcontracts with the District. Soliciting or accepting any gift, gratuity, favor, entertainment, kickback or any items of monetary value from any person who has or is seeking to do business with the District is prohibited.

Collusive or sham proposals: Any proposal deemed to be collusive or a sham proposal will be rejected and reported to authorities as such. Your authorized signature of your proposal assures that such proposal is genuine and is not a collusive or sham proposal.

The District reserves the right to reject any and all proposals and to waive any irregularities or informalities.

The District will select a qualified contractor to complete the work based on the criteria outlined in this RFP. Additionally, the District reserves the right to solicit additional proposals for any or all projects should they deem it in the best interest of the District.

Sincerely,

Russell M. Traska
District Manager

REQUEST FOR SEALED PROPOSAL

CURED-IN-PLACE PIPE PROJECT 2018 SANITARY SEWER REHABILITATION

I. HISTORY

North Pecos Water & Sanitation District (District) has an area of its existing sanitary sewer collection system where vitrified clay pipe (VCP) is in place. This area of the collection system is located in an area of high groundwater and the existing VCP experiences high infiltration. Infiltration is known to enter this part of the system through pipe joints, cracks and service lateral connections. The District started an infiltration reduction program in 2009 and has selected sections of the VCP pipe to line with the cured-in-place-pipe (CIPP) method.

The District seeks proposals from qualified Contractors to conduct CIPP rehabilitation of the sections of sanitary sewer line as listed below. The Contractor will be responsible for performing all tasks related to the installation of the CIPP rehabilitation including, but not limited to all materials, labor, and equipment required to fully complete the work.

II. SCOPE OF WORK

The project involves the rehabilitation of existing gravity sanitary sewer line sections by use of the CIPP method. The locations and associated pipe diameters, material and approximate lengths to be lined are given in Table 1, below: Attached Exhibit "J" shows the line segment locations on the District's collection system maps. The proposal should provide a separate cost for each segment listed below. Closed circuit television (CCTV) videos of each segment are available at the Link Provided.

Table 1: 2018 CIPP Sanitary Sewer Rehabilitation - Pipe Segments

Address/Location	MH to MH	Video	#	Pipe Diameter (inch)	Pipe Material
53 rd and Fox St	216-217	https://youtu.be/cppyfxNKjiU	1	8"	VCP
53 rd and Fox St	217-218	https://youtu.be/ZiK2G2hZeDE	2	8"	VCP
53 rd and Fox St	217-218	https://youtu.be/TjRShFNTkQ8	2	8"	VCP
53 rd and Fox St	218-219	https://youtu.be/4abocjtSFR0	3	8"	VCP
53 rd and Fox St	219-220	https://youtu.be/RA6Tstd9XY	4	8"	VCP
53 rd and Fox St	220-221	https://youtu.be/vWotVIYvImM	5	8"	VCP
53 rd and Fox St	221-222	https://youtu.be/7fbXTz1HQDE	6	8"	VCP
53 rd and Fox St	222-223	https://youtu.be/kLcqQqK9OU8	7	8"	VCP
53 rd and Fox St	223-224	https://youtu.be/u-FeaN1mb5k	8	8"	VCP
53 rd and Fox St	223-224	https://youtu.be/0lXnDWMVe1w	8	8"	VCP
52 nd and Bannock	226-227	https://youtu.be/Cw9r3jcgINy	9	8"	VCP
52 nd and Bannock	227-228	https://youtu.be/iLAqkdalErs	10	10"	VCP
52 nd and Bannock	228-255	https://youtu.be/n8J_HR6t6-g	11	10"	VCP
52 nd and Bannock	229-230	https://youtu.be/2l1KQvs-6x8	12	10"	VCP
53 rd and Fox St	224-225	https://youtu.be/YhjedyRyINsA	13	8"	VCP
53 rd and Fox St	225-229	https://youtu.be/ajflkymypao	14	8"	VCP

Schedule:

Sealed Proposals Due:	August 10, 2018 at 10:00 a.m. at the District Office
Anticipated Start of Work:	30 days from Notice to Proceed
Work Completion	90 days from Notice to Proceed

1. Preconstruction Meeting:

After the contract award and prior to commencing work, the contractor will attend a preconstruction conference. The Contractor, at this meeting, will have the following submittals available for District approval:

1. Homeowner Notification Plan, including letter and schedule
2. Summary of equipment to be used
3. Sources of materials
4. Summary of CIPP method to be used
5. Major subcontractors
6. Proposed method of handling existing sewage while replacing lines
7. Proposed method for sealing of the host pipe-to-liner pipe annulus at the manholes
8. Proposed method for sealing of service lateral connections to the sewer main
9. Proposed plan for traffic control

2. Mobilization and Demobilization

Contractor shall include all mobilization and demobilization costs in the unit prices proposed for the project work. Mobilization and demobilization costs will not be paid separately.

3. Manhole End Seals:

The Contractor must install end seals at each pipe entry into a manhole. This seal must completely seal the host pipe-to-liner pipe annulus at each manhole entry/exist of the lined pipe.

4. Service Lateral Sealing:

Contractor shall seal each service lateral connection to the District lined gravity sanitary sewer mainline. Contractor shall provide information on their proposed method of service lateral sealing with their proposal submittal.

5. Confined Space Entry:

The workplace contains permit spaces and entry allowed only through compliance with a permit-required confined space program meeting the requirements of 29 CFR 1910.146. Any Contractor retained by the District to perform permit space entry operations shall: Inform the District of the permit space program that the contractor will follow and of any hazards confronted or created in permit spaces, whether through a debriefing or during the entry operations.

6. Traffic Control:

The Contractor shall be responsible for all aspects of traffic control. Traffic control costs shall be included as part of the unit prices for the work and will not be paid for separately.

7. Other Permits:

The Contractor is responsible for all permitting associated with performing the work necessary to fully complete the project.

8. Standards and Specifications:

The CIPP tube and installation shall be installed per the attached specifications, Exhibit "A", and meet the requirements of ASTM F1216 or ASTM F1743.

9. Quality control:

The Contractor will be responsible for the quality, safety and protection of work until accepted by the District.

10. Measurement and Payment:

Payment will be made based on unit price of material actually installed in the sanitary sewer system. Measurement for cured in place pipe payment will be that footage measured from center of manhole to center of manhole or actual length of liner installed.

11. Performance and Payment Bonds, and Agreement:

The selected Contractor must provide a performance bond as indicated in Exhibit "G", and a payment bond as indicated in Exhibit "H", in the full amount of the contract to the District at the time of signing the Agreement in the form indicated in Exhibit "F".

12. Certificate of Insurance:

Selected Contractor must provide a certificate of insurance as indicated in Exhibit "B" before work commences.

13. Bid Bond:

Your Proposal must be accompanied by a Bid Bond in the amount of five percent (5%) of your proposal amount and in the form as indicated on Exhibit "D".

III. SEALED PROPOSAL GUIDELINES and REQUIREMENTS

Qualified Contractors interested in the work described in this RFP must submit their sealed proposal as indicated on attached Exhibit "C" and also include the following information in their proposal:

1. General information

- a. Name of firm, contact person for this proposal, title, phone number, fax number, e-mail address, street and mailing addresses, any previous names of firm in last ten (10) years, and date established.

2. Key project staffing

- a. An organization chart of anticipated staff (including management), with names, that will be involved in the project including subcontractors
- b. Job descriptions of key positions (i.e., onsite supervisor, all personnel of installation crew, others as appropriate)

3. General company resources

- a. Indicate the resources available for construction approach and methods, construction sequencing and scheduling, equipment scheduling.
- b. Indicate established company location(s) if not based in the office location listed in item 1 above.
- c. Provide a list of equipment to be utilized on the project defined.
- d. Provide a list of additional equipment that is available if required.
- e. Provide a list of subcontractors to be used on the project.
- f. Provide a list of equipment to be rented for the project.

4. Project experience.

- a. List similar projects under construction or completed within the past 3 years
- b. List and include client's name and telephone number, completion date and brief description of the type of work.

5. Construction Costs.

- a. In your written response to this RFP provide linear foot pricing on your Proposal in the form indicated on attached Exhibit "C" - Sealed Proposal, provided below, for each size of pipe from minimum size to maximum size.
- b. Linear foot cost must include all costs, including but not limited to: mobilization/demobilization, permits, labor, materials, equipment, tools, transportation, bypass pumping, waste disposal, public notification, traffic control and supplies required.

6. Installation Process.

- a. Define the technical process, including materials, to be used in the CIPP installation.

7. Proposal Submittal Requirements.

- a. Number of Proposals to be Submitted:
 - i. Five (5) hard copies
 - ii. One (1) electronic copy on CD with all documents in .pdf (Adobe) format

IV. SEALED PROPOSAL REVIEW AND ASSESSMENT

Proposals will be evaluated on the criteria given in Table 2. At the option of the District, firms may be invited for interviews. Rating scale will be from 1 to maximum possible points, with 1 being a poor rating, and the maximum possible points being an outstanding rating.

Table 2: Proposal Evaluation Criteria

POSSIBLE POINTS MAX-MIN	QUALIFICATION	STANDARD
10-1	Understanding of Project	Does the proposal show an understanding of the scope of the project, methodology to be use in the construction phases and the results that are desired from the project?
10-1	Experience	Does the firm have the resources and

		experience working on similar projects?
10-1	Construction Cost Factors	Do the proposed construction costs provide value to the District's I&I reduction program?
10-1	Motivation	Does the firm shown an interest in the work and a commitment to the successful completion of the project?

1. Acceptance or Rejection of Proposals: The District reserves the right to waive informalities in proposals and to reject any and/or all proposals after all have been examined. The District reserves the right to accept the proposal which it deems most favorable to the interests of the District. The District reserves the right to negotiate directly with the Contractor selected for reduced or additional project work.

The District also reserves the right to make such inquiries regarding a Contractor's qualifications and reputation, as it deems necessary to evaluate the proposals. In the event the District elects to select a Proposal, it shall issue a Notice of Award to the Contractor on the form indicated in attached Exhibit "E".

2. Notice to Proceed. When the District elects to commence the project, it shall issue to the Contractor a Notice to Proceed in the form of attached Exhibit "I".

3. Document Ownership: All information, data, documents, photos, computer records, and other materials of any kind acquired or developed by the Contractor as part of this project shall be the property of North Pecos Water & Sanitation District.

SECTION 2610

CURED IN PLACE PIPE LINING

PART 1 -GENERAL

1.01 SECTION INCLUDES

- A. Cured-In-Place Pipe (CIPP)
- B. 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 tightly formed to the original conduit. The resin is cured using either hot water under hydrostatic pressure or steam pressure or Ultra-Violet light within the tube. The Cured-In-Place Pipe (CIPP) will be continuous and tight fitting.

1.02 REFERENCES

- A. Codes, specifications, and standards referred to by number or title in this section shall form a part of this specification to the extent applicable by the referenced standard. Latest revisions shall apply, unless otherwise shown or specified.
- B. American Society for Testing and Materials (ASTM): In general, the below ASTM standards are referenced and apply to work under this specification. Latest revisions apply.
 - 1. ~~D638 Test Method for Tensile Properties of Plastics.~~
 - 2. ~~D790 Test Methods for Flexural Properties of Un-reinforced and Reinforced Plastics and Electrical Insulating Materials.~~
 - 3. ~~D-1248 Specification of Polyethylene Plastics Molding and Extrusion Materials.~~
 - 4. ~~D-1693 Test Environmental Stress Cracking of Ethylene Plastics.~~
 - 5. ~~D-2122 Determining Dimensions of Thermoplastic Pipe and Fittings.~~
 - 6. ~~D-2657 Practice for Heat Joining Polyolefin Pipe and Fittings.~~
 - 7. ~~D-2837 Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials.~~
 - 8. F-1216 Rehabilitation of Existing Pipelines and Conduits by Inversion and Curing of a Resin-impregnated Tube.
 - 9. F-2019 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Pulled in Place Installation of Glass Reinforced Plastic (GRP) Cured-in-Place Thermosetting Resin Pipe (CIPP)

10. F1417 Standard Test Method for Installation Acceptance of Gravity Sewer Lines Using Low Pressure Air
 11. F1743, Standard Practice for Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-In-Place Thermosetting Resin Pipe (CIPP).
 12. D5813, Cured-In-Place, Thermosetting Resin Sewer Piping Systems.
 13. D2990 (Tensile, Compressive, and Flexural Creep and Creep-Rupture of Plastics)
- C. NASSCO Specification - Recommended Specifications for Sewer Collection System Rehabilitation, July 1992.

1.03 SUBMITTALS

- A. Manufacturer's Certificate of Compliance certifying compliance with the applicable specifications and standards.
- B. Certified copies of test reports of factory tests required by the applicable standards and this Section.
- C. Manufacturer's installation instructions and procedures.
- D. Contractor's procedures and materials for service renewal, service-to-sewer main sealing, and host pipe-to-liner sealing at manholes including time and duration of water and sewer service unavailability.
- E. Pipe sizing and wall thickness calculation data.
- F. Schedule showing pipe type, size, schedule of pipe and piping system appurtenances, type of linings, coatings, service lateral connection grout or lining method, and manhole sealing grout or method.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor shall be responsible for the delivery, storage, and handling of products. No products shall be shipped to the job site without the approval of the Owner's Representative.
- B. Keep products safe from damage. Promptly remove damaged products from the job site. Replace damaged products with undamaged products

PART 2 -PRODUCTS

2.01 GENERAL

- A. The finished pipe liner in place shall be fabricated from materials which when complete is chemically resistant to and will withstand internal exposure to domestic sewage having a pH range of 5 to 11 and temperature of 150°F.

- B. Field measurements of the existing pipe diameters, ovality and length shall be taken.
- C. The liner thickness shall be sized for a minimum hydrostatic load of 8.0 feet and maximum depth of earth cover as measured in the field. The hydrostatic load shall be increased to the manhole depth plus 1.0 foot for bury depths in excess of 8.0 feet.
- D. Hydraulic Capacity - Overall, the hydraulic cross-section 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.

2.02 MATERIALS

A. ~~Tube/Liner~~

- 1. ~~Consist of a thermosetting resin-impregnated tube meeting the requirements of ASTM F1216.~~
- 2. ~~Construct to withstand inversion pressures, have sufficient strength to bridge missing pipe, stretch to fit irregular pipe sections, and invert smoothly around bends.~~
- 3. ~~Uniform thickness shall meet or exceed the design thickness.~~
- 4. ~~Size such that when installed, liner will tightly fit the internal circumference and length of original pipe.~~
- 5. ~~Outside layer~~
 - a. ~~Polyethylene coated~~
 - b. ~~Translucent flexible material that allows inspection of resin impregnation~~
 - c. ~~Continuously coated to prevent resin leakage~~
- 6. ~~Inner wall color to be light reflective color.~~
- 7. ~~Outside of tube marked at regular intervals not to exceed 5 feet.~~

B. Resin

- 1. Standard: ASTM F1216
- 2. Corrosion resistant polyester, vinyl ester, or epoxy and catalyst system.
- 3. Compatible with inversion process and liner material.

4. Curable in presence of water.
 5. Initiation temperature for cure less than 180°F.
 6. Tinted so that adequate saturation of the tube can be readily observed.
- C. Grout or Epoxy for Service Lateral-to-Main Connection Sealing
1. Approved for water submersion applications.
 2. Compatible with new pipe for sealing the service lateral-to-main connections, ends at manholes, or any other application used by the Contractor as part of this project.

2.03 LINER MANUFACTURE AND CONSTRUCTION

A. Cured-In-Place Pipe

1. Pipe shall be manufactured and designed according to ASTM F1216.
2. Pipe shall be designed assuming no bonding to original pipe wall.
3. CIPP layers shall be uniformly bonded and inseparable when tested by probing with a knife or probe.
4. Design new pipe for a minimum 50 year continuous loading condition.
5. The finished Cured Fiberglass pipe liner in place shall be fabricated from materials which when complete are chemically resistant to and will withstand internal exposure to domestic sewage having a pH range of 5 to 11 and temperatures up to 150F.
6. Minimum wall thickness will be 0.25 inches or sized for a minimum hydrostatic load of 8.0 feet and maximum depth of earth cover as measured in the field. The hydrostatic load shall be increased to the manhole depth plus 1.0 foot for bury depths in excess of 8.0 feet.
7. CIPP initial structural properties:
 - a. Modulus of Elasticity shall be a minimum of 400,000 psi as determined by ASTM D790.
 - b. Flexural Strength shall be a minimum of 4,500 psi as determined by ASTM D790.
 - c. Tensile Strength shall be a minimum of 3,000 psi as determined by ASTM D638.

PART 3 - EXECUTION

3.01 INSTALLATION RESPONSIBILITIES FOR INCIDENTAL ITEMS

- A. Access and Easements: The Owner will help locate and designate all manhole access points for the work. Existing easements or right-of-ways are anticipated to be adequate to conduct the work. If temporary construction easements are necessary, the Contractor shall inform the District of the needed easements and the District will acquire the easements.
- B. Cleaning of Sewer Lines: The Contractor shall remove all internal debris out of the sewer line that will interfere with the installation of CIPP.
- C. Inspection of Pipelines: Inspection of pipelines shall be performed by experienced personnel trained in locating breaks, obstacles and service connections using close circuit television (CCTV) inspection techniques. The pipeline interior shall be carefully inspected prior to lining to determine the location of any conditions that may prevent proper installation of CIPP.
- D. The Contractor shall be responsible for confirming the locations of all branch service connections prior to installing the CIPP and reinstating them after CIPP process.
- E. The Contractor shall be responsible for location and protection of all utilities adjacent to the work area.

3.02 INSPECTION

- A. Inspection
 - 1. Closed circuit television (CCTV) inspection shall be performed and recorded in DVD format, Wincan software preferred, with video footage saved as '.mpg' format.
 - 2. CCTV shall be performed, at minimum, and delivered to the District at the end of the project at the following project intervals:
 - a. Before cleaning and root removal and after the liner is installed.
 - b. After cleaning and root removal
 - c. After liner installation is fully completed including service tap sealing, manhole entry sealing and any other work needed to complete the lining operation.

3. CCTV footage shall include a text reference at the beginning of the footage that references, manhole numbering, date, project, Owner and Installer.
4. Inspection shall be performed by personnel experienced in location breaks, obstacles, and service connections.

3.03 SEWER CLEANING AND OBSTRUCTIONS

A. Cleaning

1. Clear the line of obstructions that would prevent installation of the liner.
2. Take precautions to protect the sewer line and service laterals from being damaged by the cleaning operations.
3. Contractor to bear full costs associated with any flooding or damage of surface or households resulting from its operations.
4. For CIPP, remove all internal debris from the sewer line by use of water jet, root saw or other equipment as needed prior to insertion of CIPP.

B. Obstructions

1. If the pre-installation inspection shows an obstruction that would prevent the CIPP from being installed (such as a protruding service connection, a dropped joint, or a collapse), the Contractor shall notify the Owner and consult with the Owner on available options to repair the obstruction prior to conducting in repair or rehabilitation of the obstruction.
2. Contactor will not be paid for unauthorized extra work to repair obstructions.

C. Material Removal

1. Remove all internal debris, grease accumulations, and roots from the sewer line prior to installation.
2. Remove any extraneous material that would inhibit thorough inspection of each joint and may prevent installation of the CIPP.
3. Remove all material resulting from the cleaning operation via the downstream manhole of the section being cleaned.
4. Remove material no less often than at the end of each

working day.

5. Passing material from one manhole to the next or to the District wastewater treatment plant will not be permitted.

D. Material Disposal

1. Contractor to dispose of material removed from the manholes and pipes at its expense in accordance with regulations and requirements of the Colorado Department of Public Health and Environment, local authorities, and Federal Government.

3.04 PUBLIC NOTIFICATION

- A. The Contractor shall make every effort to maintain sewer service usage throughout the duration of the project. 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 at least one (1) week before work begins, and when the sewer will be off-line. The Contractor shall also provide the following:
 1. 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 potential problems.
 2. Personal contact with any home or business, which cannot be reconnected within the time stated in the written notice.
 3. The Owner must pre-approve the notice prior to distribution to residents.
 4. Contractor shall provide additional notice prior to disruption of any driveways.

3.05 SEWAGE BYPASS

- A. Provide for flow of sewage around the sections of pipe being lined as required.
 1. Provide all plugs, pumps, piping, hoses, and other equipment and material needed to bypass sewage.
 2. Coordinate sewage bypass pumping equipment and hoses with traffic control plan.
 3. Wastewater spills into street gutters, storm drains, or open excavations are prohibited.

4. All spills including sewage backups that occur must be taken care of in accordance with CDPHE, local and Federal regulations at the Contractor's expense.
5. The Contractor shall be responsible for clean-up, repair and property damage, as well as any claims brought because of sewage spill or sewage back-up.
6. If a spill occurs, Owner must be notified immediately.
7. Maintain on site a reliable backup pump and power generator during all bypass pumping operations in the event of a pump and/or power failure.
8. Provide Owner with a writing plan for by pass pumping and sewer spill cleanup.

3.06 INSTALLATION OF CIPP

- A. Install CIPP using the inverted tube or pull-in place method.
- B. Demonstrate that two complete working remote-controlled cutting devices are on site, plus spare key components before each insertion of a tube.
- C. Finished CIPP
 1. Continuous between manholes.
 2. Free from visual defects such as inclusions of foreign objects, dry spots, pinholes, and delamination.
- D. Resin impregnation
 1. Designate a location where the tube will be impregnated with resin, and notify the Owner at least 24 hours in advance and assist the Owner with inspection of the materials and procedure.
 2. Impregnate the tube with enough resin to assure the resin will be observed on the outer surface of the tube when squeezed.
 3. The tube shall show evidence of excess resin on its outer surface after curing.
- E. Pulling Force
 1. Prior to installation, determine the maximum allowable pulling force that the tube can with stand without rupturing or diminishing the diameter and/or thickness of the tube.
 2. Monitor the pulling force throughout the insertion operation.

3. Remove and dispose the tube at no cost to the Owner if the allowable pulling force is exceeded.

F. Elongation

1. Measure and mark the flexible tube equal to the insertion run before it is inserted into the sewer.
2. Measure the distance between marks after insertion.
- 3.

G. If the tube has elongated more than 3 % of the original tube length, remove and dispose of the tube at no cost to the Owner.
Pressure

1. Prior to the insertion process, determine the minimum pressure required to hold the tube tight against the existing conduit and the maximum pressure that will not damage the tube and provide these two pressures to the Owner.
2. Maintain the pressure within the predetermined maximum and minimum range throughout the insertion process. Remove and dispose of the tube at no extra cost to the Owner *if* the pressure deviates from within the range of minimum and maximum pressures.
3. Maintain the pressure required to hold the tube against the wall of the existing conduit until the critical curing period is complete. Remove and dispose of the failed liner at no expense to the owner if the pressure deviates more than 1 psi during the critical curing period.
4. Maintain a log of pressures on site and furnish the log to the Owner after each inversion.

H. Manhole Seal

1. Apply a seal with a material compatible with the liner at those points where the tube fails to make a tight seal at manhole.
2. Infiltration into the manholes at the liner/manhole interface will not be accepted

I. Temperature Monitoring

1. Fit the heat source for curing with temperature monitors to measure temperature of incoming and outgoing heat supply.
2. Place a third temperature sensor at the end of the section being lined.

- J. Raise, grout or reconfigure the inverts of all manholes affected by lining to provide a smooth uniform transition from the pipe.
- K. Repair cut or damaged pipe with new pipe segments. New pipe shall meet requirements of Owner's rules and regulations.

3.7 SERVICE LATERAL REINSTATEMENT

- A. Reinstatement of Service Laterals: The Contractor is responsible for reinstating all active service laterals. Use a remote-controlled cutting device monitored by a video camera to reopen service connections.
- B. Reopen service connections and branch laterals by cutting the liner to not less than 95% capacity of the existing opening.
- C. No excavation will be permitted in this process unless the remote-controlled cutting devices fail to reopen the services or branch laterals.
- D. No additional payment will be made for excavations needed to reopen service connections or branch laterals. The Contractor will be responsible for all costs and liability associated with such excavations and restoration of to the conditions existing before the excavation.
- E. No service connection is to be out of service is for more than 8 hours.

3.08 QUALITY CONTROL

- A. Inspection
 - 1. Inspect the completed work using a video camera.
 - 2. Provide Owner with a color DVD video (Wincan software preferred with video files required to be in '.mpg' format) including before and after cleaning and root removal and after liner installation.
 - 3. Provide in audio on the video tape the address for each restored connection.
 - 4. Account for all live service connections following installation that were identified prior to liner installation.
 - 5. Evaluate condition of new pipe with a post-installation inspection log.
 - 6. The system shall have no visible leaks after completion. Repair all visible leaks including leaks at service later-to-main connections and leaks at host pipe-to-liner pipe entry at manholes.

B. Testing

1. After installation of the liner and before reinstating the service laterals the Contractor shall run a low pressure air test on the sewer line in accordance with ASTM F1417 to determine if it is watertight before reinstating services, including renewed services to the inspection tee if applicable.
2. The Contractor shall furnish all necessary equipment to conduct the test.
3. All sections of liner must pass the low pressure air test.
4. Any section that fails the low pressure air test shall be repaired by the Contractor, at the Contractor's expense.
5. Every section that fails the low pressure air test shall be retested after repair and must pass the test. The Contractor will be responsible for all repairs and retesting necessary until the section passes the test.

3.09 CLEANUP

- A. Restore the project area affected by operations to its original condition or better upon acceptance of the installation work and testing.
- B. Return the ground cover to original or better condition.
- C. Dispose of material and debris not incorporated into the permanent installation.

PART 4 WARRANTY

4.01 WARRANTY PERIOD

- A. The finished CIPP product shall be warranted by the Contractor for a period of two years from the date of acceptance to be free from any defects, including, but not limited to, leaks at any service lateral-to-main connection or at any host pipe-to-liner pipe entry or exit point at a manhole.
- B. Any defects discovered within the warranty period of two years shall be repaired at the Contractor's expense in a manner mutually agreed upon by the Owner

END OF SECTION

EXHIBIT A

CIPP Specifications

Cured-in-Place Pipe Project
2018 Sanitary Sewer Rehabilitation

SECTION 2610 B
CURED IN PLACE PIPE (Ultra Violet cure)

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Restoration of existing sanitary sewer by installation of pre-impregnated UV-cured fiberglass pipe into the existing sewer line.

1.02 REFERENCES

- B. Codes, Specifications, and Standards:

- 1. Codes, specifications, and standards referred to by number or title in Section 2610 shall form a part of this specification to the extent applicable by the referenced standard. Latest revisions shall apply, unless otherwise shown or specified.
- 2. All pipe materials incorporated in the project shall be approved by the District for the application used prior to installation.

1.03 SUBMITTALS

- C. Submit items per Section 2610

PART 2 - PRODUCTS

2.01 GENERAL

- A. The finished pipe liner in place shall be fabricated from materials which when complete is chemically resistant to and will withstand internal exposure to domestic sewage having a pH range of 5 to 11 and temperature of 150°F.
- B. Field measurements of the existing pipe diameters, ovality and length shall be taken.
- C. The liner thickness shall be sized for a minimum hydrostatic load of 8.0 feet and maximum depth of earth cover as measured in the field. The hydrostatic load shall be increased to the manhole depth plus 1.0 foot for bury depths in excess of 8.0 feet.

2.02 CURED-IN-PLACE LINER

- A. All cured-in-place plastic lining products shall comply with ASTM F-1216 a test edition or intent thereof as determined by the Owner.
- B. The flexible tube shall be fabricated to a size that when installed will neatly fit (minimum 99.75%) the internal circumference of the existing sanitary sewer lines (including services). Allowance shall be made for circumferential stretching during insertion so that the final cured product is snug against the wall of the host pipe.
- C. The minimum length shall be that deemed necessary by the Contractor to effectively span the distance from the inlet to the outlet of the respective manholes unless otherwise shown or specified. The Contractor shall verify the lengths in the field before impregnation.
- D. Unless otherwise specified, the Contractor shall furnish a general purpose, unsaturated, polyester or thermosetting vinyl ester resin and catalyst system compatible with the reconstruction inversion process or pull-in-place process that provides cured physical strengths specified herein.

2.03 UV-CURED FIBERGLASS LINER

- A. The finished UV Light Cured Fiberglass pipe liner in place shall be fabricated from materials which when complete are chemically resistant to and will withstand internal exposure to domestic sewage having a pH range of 5 to 11 and temperatures up to 150F.
- B. Take all necessary field measurements of the existing pipe (including diameter, ovality, and length) prior to manufacturing liners.
- C. The minimum length shall be that deemed necessary by the Contractor to effectively span the distance from the inlet to the outlet of the respective manholes unless otherwise specified. The Contractor shall verify the lengths in the field before manufacturing.
- D. The liner shall be structurally designed for a minimum service life of 50 years; fully deteriorated host pipe/direct bury condition; prism loading; 120lb/c.f. soil; factor of safety of 2.0; 2%ovality factor; maximum deflection 5%; soil modulus of 1000 psi; lining enhancement factor maximum 5, H-20 live loading, applicable long term modulus reduction factor; and groundwater correction factor of -27.4% applied to the hydrostatic load only.
- E. All UV cured-in-place fiberglass lining products shall comply with ASTM F2019-03 or intent thereof as determined by the Owner, minimum finished liner thickness 3mm and maximum of 6MM up to 15 inch. For wall thicknesses of a minimum of 3mm to a maximum of 10mm from 18 inch to 30 inch (except for services).
- F. The flexible tube shall be fabricated to a size that when installed will neatly fit (minimum 99.75%) the internal circumference of the existing sanitary sewer lines (including services). Allowances shall be made for circumferential stretching during insertion so that the final cured product is snug against the wall.

- G. The Contractor shall furnish a general purpose, polyester or vinyl ester UV Curing resin and catalyst system compatible with the Ultra Violet Light Curing process that provides cured physical strengths specified herein.
- H. Liner material shall be manufactured with resins pre impregnated within the liner to eliminate the possibility of air bubbles and voids.

2.04 EXPANDING HYDROPHILIC RUBBER JOINT SEAL

- A. The rubber joint seal shall be an extended hydrophilic rubber compounded from chloroprene (Neoprene) rubber and a hydrophilic resin, which expands on contact with water.
- B. The rubber joint seal shall be bonded with adhesive on one face to hold it in place during assembly.
- C. On contact with water, the rubber shall swell by up to 10 times its original volume if necessary and mold itself to completely fill any gaps and exert pressure evenly to ensure the seal. High compression or bolt up forces shall not be necessary to effect a complete and watertight seal.

2.5 Material Testing Requirements

- A. 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.
- B. CIPP Field Samples - When requested by the Owner, the Contractor shall submit test results from field installations 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. One sample, clearly identifying the location of installation per run of pipe must be given to the owner.

PART 3 - EXECUTION

3.01 PREPARATION

- D. The following installation procedures shall be adhered to unless otherwise approved by the Owner's representative.
 - 2. The Contractor shall carry out his operations in strict accordance with all OSHA and manufacturer's safety requirements. Particular attention is drawn to those safety requirements involving entering confined spaces.
 - 3. It shall be the responsibility of the Contractor to remove all internal debris and clean the existing sewer line prior to installation of the liner. Cleaning and disposal of material shall be performed by the Contractor.
 - 4. Inspection of existing sewer lines shall be performed by experienced personnel trained in locating breaks, obstacles and service connections by closed circuit television. The interior of the line shall be carefully inspected to

determine the location of any conditions which may prevent proper installation of the liner pipe into the lines, and such conditions shall be noted so they can be corrected. A video and suitable log shall be kept for later reference by the Owner.

5. The Contractor shall provide for the flow of sewage around the section or sections of pipe designated for lining.
5. The Contractor shall clear the line of obstructions such as solids, dropped joints, protruding service connections or collapsed pipe that will prevent the insertion of the liner pipe, as noted on the Drawings and TV Logs attached. If inspection reveals an obstruction that cannot be removed by conventional sewer cleaning equipment, then the Contractor shall immediately notify the Owner and each occurrence shall be evaluated individually, outside the scope of this contract.
6. Hydrophilic rubber joint seals shall be installed at all manhole walls for all lining products.
7. Ground water temperatures and ambient temperatures shall not be excessive for the product installation procedures.
8. Where practicable, liners should be installed in continuous runs where there are two or more continuous manhole segments. This is especially desirable to connect several short manhole segments with a continuous lining.

3.02 INSTALLATION

A. UV-CURED FIBERGLASS LINER

1. Installation of the CIPP liner tube shall be in accordance with ASTM F 2019-03 for UV Light Curing Installations. Installation shall be in accordance with the manufacturer's recommendations, which shall be available for verification by the Owner.
2. A pre-liner will be allowed without prior approval from the District.
3. The liner shall be pulled into place via the manufacturers instructions.
4. The liner shall be inflated with air before curing with Ultra Violet light according to the manufacturer's specifications.
5. UV Light Cured-in-Place Fiberglass Liner Installation:
 - a. The reconstruction tube will be vacuum impregnated with UV Curing Resins in the manufacturing facility prior to installation. The Contractor shall allow the Owner to inspect the materials before installation.
 - b. The Pre Impregnated UV Light Fiberglass Liner shall be inserted through the existing manhole or other approved access by means of a pull in place process by means of a winch in which will fully extend it to the next designated manhole or termination point.
 - c. The Fiberglass Liner shall be inflated in place slightly with air to the manufacturer's specification for installing the UV Chain. The

UV Light Chain, with built in safety air loss shut off sensors, shall then be installed into the liner and the gates are then to be closed. The Fiberglass liner will then be inspected with a camera mounted on the UV Chain as it is pulled to the end of the liner. After inspection and complete inflation to manufacturer's specifications, the UV light bulbs will be turned on. The curing will commence at a rate specified by the manufacturer according to the total dimensions of the size of the liner.

d. As the liner is curing the UV Curing System shall record all curing data in DVD (Wincan software preferred, video file to be '.mpg') format for the viewing of the District.

e. Initial cure shall be deemed to be complete when the UV Chain arrives at the initial entry point of insertion.

f. The Contractor shall apply a hydrophilic seal at the terminus of each segment. The seal shall be of a material compatible with the CIPP material.

3.03 TESTING

E. After installation every liner shall be TV inspected with a camera as soon as practical to verify proper installation. At each service, the camera shall come to a complete stop and the service shall be panned. The footage meter count shall be clearly visible.

F. After installation the Contractor shall run a low pressure air test per Section 2610.

3.04 CLEANUP

G. After the installation work has been completed and all testing acceptable, the Contractor shall clean up the entire project area and return the ground cover to grade. All excess material and debris not incorporated into the permanent installation shall be disposed of by the Contractor. Easement sidewalks, driveways, and street surfaces shall be restored as specified or to the original condition.

END OF SECTION

EXHIBIT B

Cured-in-Place Pipe Project 2018 Sanitary Sewer Rehabilitation

INSURANCE REQUIREMENTS

1. The Contractor shall carry and pay for the following insurance coverage with limits equal to or greater than the highest limits specified in the Contract or those specified in Insurance Requirements Section 2 below. In the event any work is performed by a subcontractor, the Contractor shall be responsible for any liability directly or indirectly arising out of the work performed under this Contract by a subcontractor, which liability is not covered by the subcontractor's insurance. Contractor's insurance shall have no Exclusion of Subcontractor's Work (Contractor's insurance not to include Form CG 22 94-Exclusion-Damage to Work Performed by Subcontractors on Your Behalf). Before commencing work, the Contractor shall furnish the District with certificates of insurance showing the type, amount, class of operations covered, effective dates and date of expiration of policies, and containing substantially the following statement:

"The insurance evidenced by this Certificate will not be cancelled or materially altered, except after ten (10) days written notice has been received by North Pecos Water & Sanitation District."

In case of breach of any provision of the Insurance Requirements, the District, at its option, may take out and maintain, at the expense of the Contractor, such insurance as the District may deem proper and may deduct the cost of such insurance from any monies which may be due or become due the Contractor under this Agreement. The District, its officers, agents and employees shall be named as additional insureds on the Contractor's general liability and automobile liability insurance policies for any claims arising out of work performed under this Agreement.

The District and Contractor waive all rights of subrogation against each other, the District and all other Contractors to the extent of any property insurance recovery obtained by the waiving party for loss or damages caused by fire or other perils, except such rights as such party may have to insurance proceeds held by any other person as trustee or otherwise on behalf of such party.

2. Insurance coverages shall be as follows:

A. Workers' Compensation Insurance for the protection of the Contractor's partners and employees as required by law, and Employer's Liability with minimum limits of:

\$100,000 Each Accident
\$100,000 Each Occupational Disease
\$500,000 Occupational Disease Aggregate

Policy to include Waiver of Subrogation in favor of Contractor.

B. Commercial General Liability Insurance shall include premises/operations, contractual, products/completed operations, explosion, collapse, and underground hazard. Minimum limits of liability shall be:

\$2,000,000 General Aggregate
\$1,000,000 Products/Completed Operations
\$1,000,000 Personal and Advertising Injury
\$1,000,000 Each Occurrence
\$50,000 Fire Damage (Any one fire)
\$5,000 Medical Expense (Any one person)

The District, and any other party required to be indemnified by the District shall be added as an Additional Insured on the Contractor's Commercial General Liability policy and Products/Completed Operations. The Contractor's policy shall be primary to any other insurance policies held by District or any other additional insured, and no other insurance of District will be called on to contribute to a loss. Limits will apply on a Per Project basis.

C. Automobile Liability Insurance covering the use, operation and maintenance of any automobile, truck, trailer or other vehicles used by the Contractor shall include coverage for owned, hired and non-owned liability. Contractor shall be certain coverage is provided which complies with all provisions of the law.

\$1,000,000 Combined Single Limit

D. Excess Liability

\$1,000,000 Each Occurrence

EXHIBIT C

Cured-in-Place Pipe Project
2018 Sanitary Sewer Rehabilitation

SEALED PROPOSAL

TO: North Pecos Water and Sanitation District (Owner)

PROJECT: Cured-in-Place Pipe Project 2018 Sanitary Sewer Rehabilitation

- A. **PROPOSAL:** Pursuant to the “Request for Proposals” for the above named project, and being familiar with all contractual requirements, therefore, the undersigned Bidder hereby proposes to furnish all labor, materials, tools, supplies, equipment, plant, transportation, services, permits and all other things necessary for the completion of the contractual work and pay all taxes and patent costs, and perform the work in accordance with the requirements and intent of the Request for Proposal documents, within the time of completion set forth herein, for and in consideration of the following unit and lump sum prices:

Description, Approximate Quantity, and Unit Price

Includes furnishing and handling all materials, all excavation, dewatering, pipe lining installation, curing, bypass pumping, sewer customer notification and coordination, traffic control, couplings, imported bedding material, backfilling, compaction, disinfection, flushing, testing, cleanup, restoration, connection to existing piping and manhole, support and protection of utilities, potholing, and other items as needed to complete the system as shown on the drawings and as specified, per lineal horizontal foot of pipe lining in place, measured from ends of pipe lining installed between the stated manhole section listed below:

<u>Address/ Location</u>	<u>MH to MH</u>	<u>Pipe Diameter</u>	<u>Pipe Material</u>	<u>Length (FT +/-)</u>	<u>Unit Price Words</u>	<u>Unit Price Figures</u> \$
53 rd and Fox St.	216-217					
53 rd and Fox St.	217-218					
53 rd and Fox St.	218-219					
53 rd and Fox St.	219-220					
53 rd and Fox St.	220-221					
53 rd and Fox St.	221-222					
53 rd and Fox St.	222-223					
53 rd and Fox St.	223-224					
52 nd and Bannock St	226-227					
52 nd and Bannock St	227-228					
52 nd and Bannock St	228-255					
52 nd and Bannock St	229-230					
53 rd and Fox St	224-225					

53 rd and Fox St	225-229					

TOTAL	Line Items 1-14	Words:	\$
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- B. **QUANTITIES:** It is to be understood that the quantities of each item of work set forth in this Proposal are approximate only and will be revised depending on field conditions encountered. The Owner has the right to revise quantities in its best interest without affecting any of the unit prices set forth above. In all cases, the stated unit prices proposed shall be used in determining the final value of the completed work.

- C. **TIME FOR COMPLETION:** If awarded this work, the Bidder agrees to begin work within ten (30) days from the date of the Notice to Proceed and agrees to prosecute the work with all due diligence and effort to assure completion as set forth in the Request for Proposal and Agreement Documents. Time for completion is an essential condition of this Contract.
Furthermore, the Bidder agrees that failure to complete the Agreement within the time proposed, including any extension thereof, shall be considered a breach of the Agreement, and entitles the Owner to actual damages caused by such failure.

- D. **PARTIES INTERESTED IN BID:** The Bidder hereby certifies that the only persons or parties interested in this Proposal are those named herein, and that no other Bidder or prospective Bidder has been given any information concerning this Proposal.

In submitting this Proposal, it is understood that the right is reserved by the Owner to reject any or all Proposals, and to waive informalities and irregularities in Proposals received, and to accept that Proposal which in its judgment best serves the interests of the District.

FIRM NAME _____

BY _____ TITLE _____

BIDDER'S LEGAL STATUS _____

STATE OF INCORPORATION _____

FIRM'S ADDRESS: _____

PHONE _____ FAX _____

DATED THIS _____ DAY OF _____, 2018.

EXHIBIT D
Cured-in-Place Pipe Project
2018 Sanitary Sewer Rehabilitation

BID BOND

KNOW ALL PERSONS BY THESE PRESENTS: That _____ as Principal, and _____ as Surety are held and firmly bound unto North Pecos Water and Sanitation District (hereinafter called "OWNER"), in the penal sum of _____ Dollars (\$_____) lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has submitted to the OWNER the accompanying Proposal dated _____, 2018 and,

WHEREAS, the OWNER has required as a condition for receiving said Proposal that the Principal deposit with the OWNER either a certified check equivalent to not less than five (5) per cent of the amount of said Proposal or in lieu thereof furnish a Bid Bond for said amount conditioned that in the event of failure to execute the formal Contract for such construction, and furnish the required Performance Bond if the Contract be awarded to him that said sum be paid immediately to the OWNER as liquidated damages and not as a penalty for the Principal's failure to perform;

NOW, THEREFORE, if the aforesaid Principal shall be awarded the Contract the said Principal will, within the time required, enter into a formal contract and give a good and sufficient bond to secure the performance of the terms and conditions of the Contract, then this obligation to be void; otherwise the Principal and Surety will pay unto the OWNER the full amount of this guaranty as liquidated damages.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their several seals this ____ day of _____, 2018, the name and corporate seal of each corporate party being hereto affixed, and these presents duly signed by its undersigned representative pursuant to authority of its governing board.

Principal (Bidder)
Address: _____

Surety:
By: _____

Surety Address _____

EXHIBIT E
Cured-in-Place Pipe Project
2018 Sanitary Sewer Rehabilitation

NOTICE OF AWARD

To: _____, 2018 (Date)

(Contractor)

By: The North Pecos Water and Sanitation District
(Owner)

having duly considered the proposals submitted on _____
(Opening Date)

for the construction of:

Cured-in-Place Pipe Project 2018 Sanitary Sewer Rehabilitation
(Project Title)

as outlined in these Request for Proposal Documents and detailed on the Drawings, and it appearing that your Proposal for performing the work outlined is fair, equitable and to its best interest, the said Proposal is hereby accepted at the bid prices contained therein.

In accordance with the terms of the Request for Proposal Documents, you are required to execute the formal Agreement and furnish the required Performance and Payment Bonds within ten (10) consecutive calendar days from and including the date of this notice.

In addition, you are requested to furnish at the same time five (5) copies of certificate of insurance evidencing compliance with the requirements for insurance stated in the Request for Proposal Documents. Your certificate shall be accompanied by a letter from your insurance company stating that the insurance certified meets the requirements of the Contract Documents.

The Bid Security submitted with your Proposal will be retained until the Agreement has been executed and the required Performance and Payment Bonds have been furnished and approved. In the event that you should fail to execute the Agreement and furnish the Performance and Payment Bonds within the time limit specified, the said Bid Security will be retained as liquidated damages and not as penalty for the delay and extra work caused thereby.

North Pecos Water and Sanitation District
(Owner)

By: _____

EXHIBIT F
Cured-in-Place Pipe Project
2018 Sanitary Sewer Rehabilitation

AGREEMENT

THIS AGREEMENT made and entered into this _____ day of _____, 2018,
by and between, North Pecos Water and Sanitation District, party of the first part, hereinafter
called the "Owner," and _____

party of the second part, hereinafter called the "Contractor."

WITNESSETH: That for and in consideration of the promises contained in the Request for Proposal Documents, of which this instrument is a part, the performance thereof, and the payments hereafter to be made, the said parties hereby covenant and agree as follows:

1. In consideration of the covenants and agreements to be kept and performed by the Contractor, and for the faithful performance of this Agreement, and the completion of the work embraced therein, according to the Drawings and Specifications and conditions herein contained and referred to, the Owner shall pay, and the Contractor shall receive and accept as full compensation for everything furnished and done by the Contractor under this Agreement, and also for all loss and damage arising out of the nature of the work, the action of the elements, or from any unforeseen contingencies or difficulties encountered in the prosecution of the work, the prices stipulated in the Contractor's Proposal, which are made a part of this agreement.
2. The Contractor, at his own proper cost and expense, shall do all work and furnish all labor, materials, tools, supplies, machinery, and other equipment that may be necessary for the construction of

Cured-in-Place Pipe Project 2018 Sanitary Sewer Rehabilitation
North Pecos Water and Sanitation District
(Project Title)

as outlined and as described in the Specifications and detailed on the Drawings of the Request for Proposal.

3. The maintenance of a rate of progress in the work which will result in its completion within the specified time is an essential feature of the Agreement, and the Contractor agrees to proceed with all due diligence and care, at all times to take all precautions to insure the time of completion as defined in this Agreement.

Said work shall be commenced within 30 days from the date of the "Notice to Proceed"; and the Contractor shall have the work called for under the Contract fully completed within ninety (90) consecutive calendar days from and including the date of the said "Notice to Proceed."

4. It is also understood and agreed that the Request for Proposal Documents, including any Addenda thereto issued prior to the opening of bids, consisting of the Advertisement for Bids, Instructions to Bidders, General Conditions, Special Construction Provisions, Specifications, Proposal, Notice of Award, Performance Bond, Payment Bond, Notice to Proceed, and Drawings are all essential parts of this Agreement, and are each and all made a part hereof, and have the same force and effect as if set forth at length herein.
5. Pursuant to Section 24-91-103.6, C.R.S., the Owner hereby states that it has appropriated an amount equal to or in excess of the Contract amount. Owner shall not issue a Change Order or other form of order or directive requiring additional compensable work to be performed, which work causes the aggregate amount payable under the Contract to exceed the amount appropriated for the original Contract, unless Contractor is given written assurance by the public entity that lawful appropriations to cover the costs of the additional work have been made or unless work is covered under a remedy-granting provision of the Agreement.
6. It is agreed by the parties to this Agreement that this agreement shall be executed in four counterparts, two copies being retained by the Owner, one to be delivered to the Contractor, and one to the Contractor's Surety.
7. It is agreed by the parties to this Agreement that this agreement shall be binding upon the Owner and the Contractor and upon all their successors, assigns, heirs, executors, and administrators.

IN WITNESS WHEREOF, the Owner, party of the first part, has caused these presents to be executed the day and year first above written, and the said party of the second part has caused these presents to be executed and hereunto affixed its seal the _____ day of _____, 2018.

(Owner)

_____ By _____

(Contractor)

(Corporation Secretary) By _____

Title _____

(Corporate Seal)

EXHIBIT G
Cured-in-Place Pipe Project
2018 Sanitary Sewer Rehabilitation

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, THAT _____ as Principal, and _____ a corporation organized and existing under and by virtue of the laws of the State of _____

AND AUTHORIZED TO TRANSACT BUSINESS WITHIN THE STATE OF COLORADO, as Surety, are held and firmly bound to:

North Pecos Water and Sanitation District, as Owner, in the penal sum of:

_____ Dollars lawful money of the United States of America, for the payment of which, well and truly to be made, the said Principal and the said Surety, bind themselves and each of their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents, as follows:

The condition of the above obligation is such that:

WHEREAS the above Principal has heretofore on _____ day of _____, 2018, entered into a written Agreement, a copy of which is by reference made a part hereof, with: the North Pecos Water and Sanitation District, (Owner) for the construction of the Cured-in-Place Pipe Project 2018 Sanitary Sewer Rehabilitation (Project) said work of construction to be done according to the requirements of said Agreement.

NOW, THEREFORE, if the above Principal shall well, truly and faithfully perform said Agreement and any alteration in or addition thereto, and comply with all of the terms and provisions thereof and satisfy all of the obligations of said Principal arising thereunder (including the matter of infringement, if any, of patents) and comply with all the covenants therein contained, and contained in the Specifications, Drawings, and other documents constituting a part of said Agreement required to be performed by said Principal, and satisfy all claims and demands for same, in the manner and within the time provided in said Agreement, and shall fully indemnify and save harmless the Owner from all costs and damage which they may suffer by reason of failure so to do, and shall fully reimburse and repay them all outlay and expense which may incur in making good any default, and reasonable counsel fees incurred in the prosecution of defense of any action arising out of or in connection with any such default, as well as all other reasonable counsel fees incurred by the Owner and arising out of or negotiations with such claim or default, and shall pay all persons who have contact directly with the Principal, for labor, equipment, and materials, if any, included in said Agreement, or any alteration in or addition thereto; and if for a period of one year following the Final Acceptance of work performed under the Agreement the Principal shall faithfully and satisfactorily repair and/or replace all work, material, and equipment which is determined to be defective during that period of time, providing such defection results directly or indirectly from faulty workmanship or negligence by the Principal, or from faulty manufacturing, faulty erection, faulty materials, or improper handling of materials and equipment furnished and installed by the Principal, then this obligation is to be null and void; otherwise to remain in full force and effect

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration in or addition to the terms of the Agreement or to the work to be performed thereunder, or to the Specifications and Drawings accompanying the same, and no forbearance on the part of either the Owner or said Principal to the other, shall in any way affect its obligation on this bond, or release the Principal and the Surety or either of them, their heirs, executors, administrators, successors or

assigns from their liability hereunder, and it does hereby waive notice of any such change, extension of time, forbearance, alteration in or addition to the terms of the Agreement, or to the work to be performed thereunder, or to the Specifications and Drawings and other documents constituting a part thereof.

IN WITNESS WHEREOF, the above-named Principal and Surety have signed these presents
this

_____ day of _____, 2018

ATTEST/WITNESS:

Principal (Contractor)

By: _____

(SEAL)

Surety

By: _____

(Its Attorney-In-Fact)

APPROVED:

North Pecos Water and Sanitation District

Owner

By: _____

NOTE: Date of BOND must not be prior to date of Agreement if contractor is Partnership, all partners shall execute BOND.

EXHIBIT H
Cured-in-Place Pipe Project
2018 Sanitary Sewer Rehabilitation

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, THAT _____
as Principal, and

_____ a
corporation organized and a existing under and by virtue of the laws of the State of

AND AUTHORIZED TO TRANSACT BUSINESS WITHIN THE STATE OF COLORADO, as Surety, are held
and firmly bound to: North Pecos Water and Sanitation District, as Owner, in the penal
sum of _____ DOLLARS,

lawful money of the United States, for the payment of which, well and truly to be made, the said Principal
and the said Surety, bind themselves and each of their heirs, executors, administrators, successors,
and assigns, jointly and severally, firmly by these presents, as follows:

The condition of the above obligation is such that:

WHEREAS the above bounded principal has heretofore on the ___ day of _____ 2018,
entered into a written Agreement, a copy of which is by reference made a part hereof, with North
Pecos Water and Sanitation District, as Owner, for the construction of the Cured-in-Place Pipe Project
2018 Sanitary Sewer Rehabilitation (Project) said work of construction to be done according to the
requirements of said Agreement.

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms,
SUBCONTRACTORS, and corporations furnishing materials for or performing labor in the prosecution of
the work provided for in such Agreement, and any authorized extension or modification thereof,
including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery,
equipment and tools, consumed or used in connection with the construction of such WORK, and all
insurance premiums on said WORK, and for all labor, performed in such WORK whether by
SUBCONTRACTOR or otherwise, then this obligation shall be void; otherwise to remain in full force and
effect.

PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no
change, extension of time, alteration or addition to the terms of the Contract or to the WORK to be
performed there under or the SPECIFICATIONS accompanying the same shall in any wise affect its
obligation on this BOND, and it does hereby waive notice of any such change, extension of time,
alteration or addition to the terms of the Contract or to the WORK or to the SPECIFICATIONS.

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

IN WITNESS WHEREOF, this instrument is executed in _____ counterparts, each
(number)
one of which shall be deemed an original, this _____ day of _____, 2018.

ATTEST/WITNESS:

Principal (Contractor)

By: _____

(SEAL)

Surety

By: _____

(Its Attorney-In-Fact)

APPROVED:

North Pecos Water and Sanitation District

Owner

By: _____

NOTE: Date of BOND must not be prior to date of Contract. If CONTRACTOR is Partnership, all partners shall execute BOND.

EXHIBIT I
Cured-in-Place Pipe Project
2018 Sanitary Sewer Rehabilitation

NOTICE TO PROCEED

(Date)

TO: _____
(Contractor)

You are hereby authorized to proceed on this date, but not later than ten (30) consecutive calendar days hereafter, with the construction of:

Cured-in-Place Pipe Project
2018 Sanitary Sewer Rehabilitation
(Project Title)

as set forth in detail in the Request for Proposal Documents.

North Pecos Water and Sanitation District
(Owner)

By: _____

EXHIBIT J

Cured-in-Place Pipe Project
2018 Sanitary Sewer Rehabilitation

CIPP Location Maps

