

SPECIFICATIONS
FOR
2016
SANITARY SEWER GROUTING
MAINTENANCE PROJECT

CITY OF GREENVILLE, OHIO

Legal Advertisement

NOTICE TO BIDDERS

Sealed bids for Sanitary Sewer Grouting for the City of Greenville shall be received by the Board of Control, c/o Janelle Cross, Municipal Building, 100 Public Square, Greenville, Ohio 45331, until 10:00 a.m. local time on August 11, 2016, at which time they will be opened and read aloud in the Municipal Council Room.

The Project consists of cleaning, televising, and grouting 4,415 linear feet of 8" to 10" sanitary sewer line. The estimate for this work is \$105,000.00.

The bids shall be received in accordance with the Invitation to Bidders, Instructions to Bidders, Specifications and Proposal Form, all of which may be obtained from the City Planning & Zoning Office or cityofgreenville.org.

The City of Greenville is an Equal Opportunity Employer M/F.

Authorized by Greenville City Ordinance No. 16-34.

Curt Garrison
Safety/Service Director

PUBLISH: July 15 and 22, 2016



City of Greenville, Ohio
100 Public Square
Greenville, Ohio 45331
Board of Control
Phone: 937-548-4930
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INVITATION TO BIDDERS

Sealed Proposals properly endorsed "2016 Sanitary Sewer Grouting Project" shall be received by the Board of Control, c/o Janelle Cross, Municipal Building, 100 Public Square, Greenville, Ohio 45331, until 10:00 AM, August 11, 2016, at which time they will be opened and read aloud in the Municipal Council Room.

Each bid shall contain the full name of every person or company interested in bidding and shall be accompanied by a Bid Bond for the full amount (100%) of the bid **OR** a Certified Check, Cashier's Check, or Letter of Credit on some solvent bank made payable to the City of Greenville, Ohio in the amount of ten percent (10%) of the total bid, as evidence of good faith by the bidder that a contract shall be entered into and its performance secured. The deposits of all bidders shall be returned when the successful bidder has entered into a contract and have furnished the necessary Performance Bonds (100%) or when all bids have been rejected. The bid guaranty filed pursuant to the foregoing shall be governed by the provisions of Section 153.54 of the Ohio Revised Code and all relevant divisions thereof.

The bids shall be received in accordance to the Invitation to Bidders, Instruction to Bidders, Instructions to Bidders, and Proposal Form, all of which may be obtained from the office of the Planning & Zoning Department, address above.

Curt Garrison
Safety/Service Director

INSTRUCTIONS TO BIDDERS

PROPOSAL FORM

The proposal must be submitted on the Proposal Form furnished by the City of Greenville in a sealed envelope plainly marked "**Bid For 2016 Sanitary Sewer Grouting Project**". Such bids will be opened and publicly read by the Board of Control at 10:00 a.m. on August 11, 2016, at the Greenville Municipal Council Room, 100 Public Square, Greenville, Ohio.

QUANTITIES

The quantities that are shown on the Proposal Form are approximate and the City of Greenville, Ohio reserves the right to purchase any amount needed by it at the Unit Price bid for the length of the contract. A map which shows planned work is included at the back of this packet. The City reserves the right to perform, alter, or non-perform projects.

DELIVERY

The Unit Price Bid shall include all freight charges on materials delivered to the job site or storage yards of the City of Greenville, Ohio as ordered by an authorized agent of the City.

BID BOND

Each bid shall contain the full name of every person or company interested in bidding and shall be accompanied by a Bid Bond for the full amount (100%) of the bid **OR** a Certified Check, Cashier's Check or Letter of Credit on some solvent bank in the sum of ten percent (10%) of the total bid made payable to the City of Greenville, Ohio as evidence of good faith by the bidder that a contract shall be entered into and its performance secured. The deposits of all bidders shall be returned when the successful bidders have entered into a contract and have furnished the necessary Performance Bonds or when all bids have been rejected. The Bid Guaranty filed pursuant to the foregoing shall be governed by the provisions of Ohio Revised Code Section 153.54 and all relevant divisions thereof.

NON-COLLUSION AFFIDAVIT

Bidders are required to file on forms furnished by the City and shall submit a completed Non-Collusion Affidavit at the time their bid is filed.

TAXES

Bidders are required to file on forms furnished by the City that such bidder was not charged with any delinquent Concerning CAT Taxes / Corporate Tax on the general tax list of personal property of Darke County, Ohio, and shall submit completed Statements of Bidders at the time their bid is filed.

MODIFICATIONS

Modifications or addenda to the specifications may be relayed by way of e-mail or certified mail.

BID WITHDRAWAL

No bidder shall withdraw his bid for a period of 60 days.

REJECTION OF BIDS

The City of Greenville reserves the right to reject any and all bids. Any bid received after the time & date specified shall not be considered. The City reserves the right to waive any informalities or irregularities.

BEST BID

The City shall in its opinion accept the best bid for the materials advertised and shall enter into such contracts that will maintain the safety, health, and welfare of its citizens.

INSURANCE

The Contractor shall secure and pay the premium for a proper policy of Public Liability Insurance continued to hold the City of Greenville harmless during the term of the contract for loss to property or injury that may arise for any reason during the period that said equipment is being operated for the City by the Contractor. The City of Greenville shall be named as an additional insured on the Certificate of Insurance. The amount of the liability guaranteed by the contract shall be not less than \$1,000,000.00 for damages for any one incident and not less than \$2,000,000.00 in the aggregate; said policy shall be filed with the Auditor of the City of Greenville, Ohio prior to the effective date of the Contract. Such Certificate of Insurance must name the City of Greenville as an additional insured.

WORKMEN'S COMPENSATION

The bidder must be able to furnish to the City and to be made part of the Contract, certification that the bidder is covered as an employer under the Workmen's Compensation Laws of the State of Ohio, a copy of which shall be made part of the contract.

CITY INCOME TAX

Contractors working for the City of Greenville are required to register with the Greenville City Income Tax Office at the time the contracts are signed. Phone (937)548-5747.

OHIO TAX EXEMPTION

An Ohio Tax Exemption Certificate is available at the Greenville City Auditor's Office (937)548-4435.

DISCRIMINATION AND INTIMIDATION

The prohibition against discrimination and intimidation on account of race, creed or color is stated in Sections 153.59, 153.591, and 153.60 of the Ohio Revised Code, these sections shall be made a part of these specifications the same as if written in full within.

WAGE RATES

The project as specified is considered "maintenance" and does not required Ohio prevailing wages be paid to contractors. If the scope of work would be altered by circumstances requiring construction labor, prevailing wages would be required.

NEGLIGENCE

The Contractor shall be liable for all the negligent acts of his operators or drivers while operating the contractor's equipment under the direction of the City.

LENGTH OF CONTRACT

The work associated with this contract shall be completed by December 15, 2016.

PERFORMANCE BOND

In accordance with Section 735.06 of the Ohio Revised Code, a Performance Bond of one hundred percent (100%) of the amount of the contract, with satisfactory sureties will be required for the faithful performance of the contract.

PAYMENT

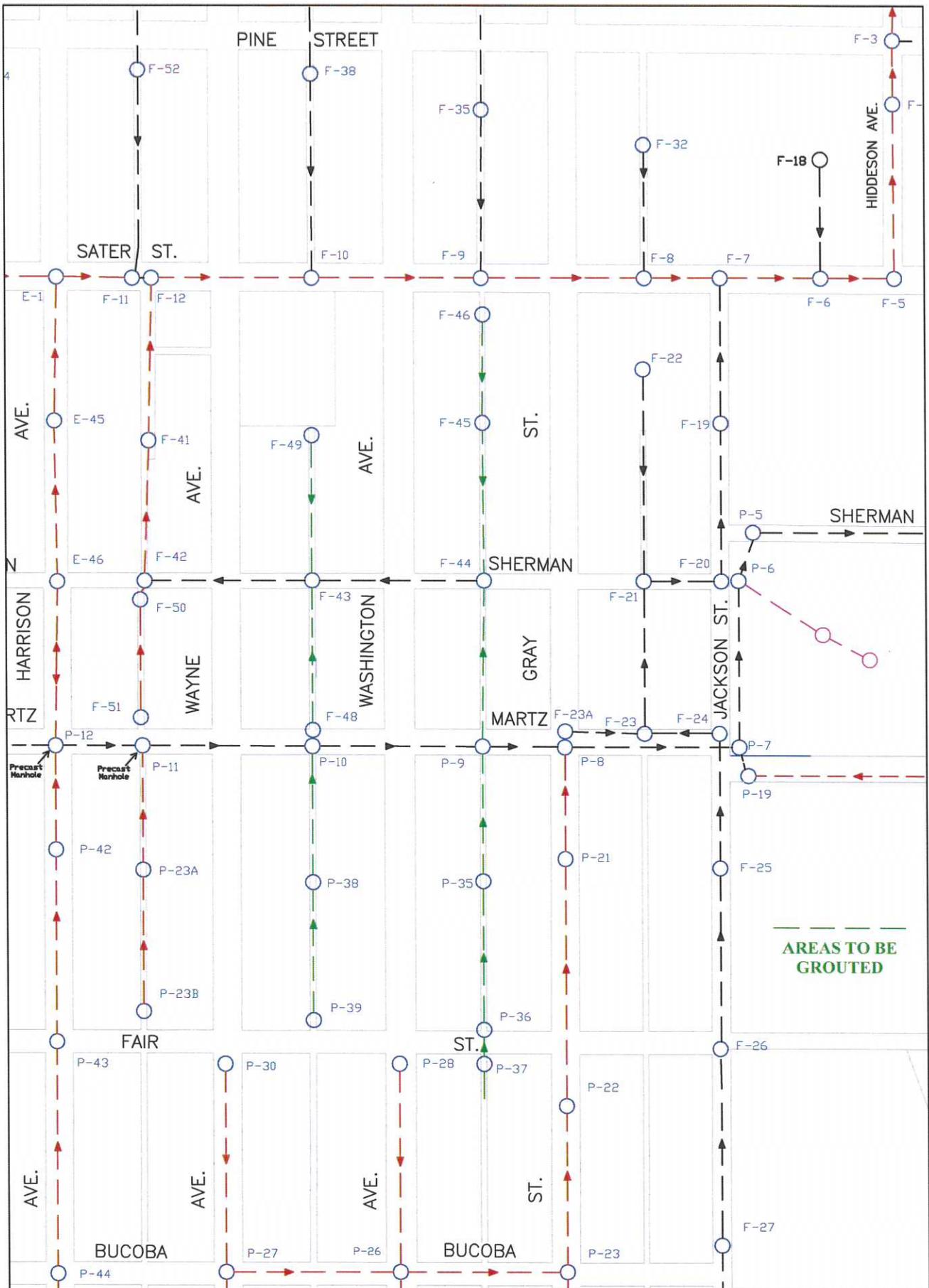
Payment shall be made to the Contractor within thirty (30) days after the contractors' invoice has been approved by the Director of Public Safety/Service.

CITY OFFICE PHONE NUMBERS

Auditor	548-4435	Pool	548-3393
Fire Dept	548-3040	Safety/Service	548-1819
Income Tax	548-5747	Sewage Treatment	548-3530
Law Director	548-2211	Street/Garage	548-2215
Mayor's Office	548-1482	Water Dept	548-1815
Park Dept	548-2315	Water Meter Shop	548-5212
Planning & Zoning	548-4930	Water Plant	548-2415
Police Dept	548-1103		

TECHNICAL SPECIFICATIONS

1. Quantities shown are estimated only and the work to be performed is to be completed in accordance with these bidding and/or contract documents.
2. Item "Cleaning & Televising Sewers" shall include all work necessary to remove existing mineral deposits sufficiently to perform the sewer joint testing and sealing.
3. The Owner reserves the right to increase or decrease any bid item at no change in the unit price bid.
4. All Laterals are to be tested and sealed, and cleaning will be incidental to perform work.
5. By-pass pumping of flows, where necessary to perform work.
6. Contractor is responsible for accessing and exposing buried manholes.
7. Contractor is responsible for handing out an information packet to all residents in the affected area, explaining the work, risk, and proper procedure prior to cleaning.



SANITARY SEWER CLEANING AND TV INSPECTION

1. SANITARY SEWER CLEANING

INTENT

The intent of sewer cleaning is to remove foreign materials from the lines and restore the sewer to a minimum of 95% original carrying capacity of as required for proper seating or internal pipe joint sealing packers. Since the success of the other phases of work depends a great deal of the cleanliness of the lines, the importance of this phase of the operation is emphasized. It is recognized that there are some conditions such as broken pipes or major blockages that prevent cleaning from being accomplished or where additional damage was attempted or continued. Should such conditions be encountered, the Contractor will be required to clean those specific sections. If in the course of normal cleaning operations, damage does result from preexisting or unforeseen conditions such as broken pipe, the contractor will be held responsible.

Meet Specifications YES NO

CLEANING EQUIPMENT

- A. **Hydraulically Propelled Equipment:** The equipment used shall be of the movable dam type and be constructed in such a way that a portion of the dam shall be collapsed at any time during the cleaning operation to protect against flooding of the sewer. The movable dam shall be equal in diameter to the pipe being cleaned and shall provide a flexible scraper around the outer periphery to insure removal of grease. If the sewer cleaning balls or other equipment which cannot be collapsed is used, special precautions to prevent flooding of the sewers of public and private sewers must be taken.
- B. **High-Velocity Jet (Hydrocleaning) Equipment:** All high velocity sewer cleaning equipment shall be constructed for ease and safety operation. The equipment shall have a selection of two or more high- velocity nozzles. The nozzles shall be capable of producing a scouring action from 15 to 45 degrees in all size lines designated to be cleaned. Equipment shall also include a high-velocity gun for washing and scouring manhole walls and floors. The gun shall be capable of producing flows from fine spray to a solid stream. The equipment shall carry its own water tank, auxiliary engines, pumps, and hydraulically driven hose reel.
- C. **Mechanically Powered Equipment:** Bucket machines shall be in pairs with sufficient power to perform the work in an efficient manner. Machines shall be belt operated or have an overload device. Machines with direct drive that could cause damage to the pipe will not be allowed. A power rodding machine shall be either a sectional or continuous rod type capable of holding a minimum of 750 feet of rod. The rod shall be specifically heat-treated steel. To insure safe operation, the machine must be fully enclosed and have automatic safety clutch or relief valve.

Meet Specifications YES NO

CLEANING PRECAUTIONS

During sewer cleaning operations, satisfactory precautions shall be taken in the use of cleaning equipment. When hydraulically propelled cleaning tools (which depend upon water pressure to provide their cleaning force) or tools which retard the flow of the sewer line are used, precautions shall be taken to insure that the water pressure created doesn't damage or cause flooding of public or private property being served by the sewer. An informational packet shall be handed out to all residents in the affected area, explaining the work, risk and proper procedure prior to cleaning. When possible, the flow of the sewage in the sewer shall be utilized to provide necessary pressure for hydraulic cleaning devices. When additional water from fire hydrants is necessary to avoid delay in normal work procedures, the water shall be conserved and not used unnecessarily. If required by the owner, the contractor shall obtain a hydrant permit and meter from the Water and Sewer Department. No fire hydrant shall be obstructed in case of a fire in the area served by the hydrant.

Meet Specifications _____YES _____NO

SEWER CLEANING

The designated sewer manhole sections shall be cleaned using hydraulically propelled, high velocity jet or mechanically power equipment. Selection of the equipment used shall be based on the conditions of the lines at the time the work commences. The equipment and methods shall be satisfactory to the owner's representative. If cleaning of the entire section can not be performed, the equipment shall be setup on the other manhole and cleaning again attempted from the other end. If, again, successful cleaning cannot be performed or the equipment fails to traverse the entire manhole section, it will be assumed that a major blockage exists and the cleaning effort shall be abandoned.

NORMAL CLEANING: Cleaning shall be defined as follows:

- A. Initial Sectioning of the Sewer Line (Step Cleaning): Sectioning Shall include a minimum of three passes. The first shall extend from the downstream manhole to point in the sewer equal to 1/3 of the total distance between the manholes which are being cleaned. The second pass shall include 2/3 of the sewer line and the third pass shall extend the full distance between manholes. All passes shall be made using sufficient capacity of the sewer cleaning equipment.
- B. Continuous Cleaning Passes from Manhole to Manhole: Once the sectioning of the sewer line has been completed, the contractor shall make three complete passes from manhole to manhole.

Immediately after the above process has been completed, the Contractor shall visually inspect the sewer line by use of closed circuit television. This operation must be done utilizing the jet to draw down enough of the existing flow to enable inspection of the bottom of the pipe. If at this time, debris still remains in the sewer, additional cleaning efforts will be paid as "Heavy Cleaning". Payment for "Normal Cleaning" and "Heavy Cleaning" will only be made based on the video taped footage of the sewer line which is cleaned.

Meet Specifications _____YES _____NO

HEAVY CLEANING

The item of work “Heavy Cleaning” of sewers of the sizes as designated in the proposal shall include all labor, material and equipment required to have the sewer in a clean condition before televising of the sewer. The item will be bid as work supplemental to normal cleaning as outlined above. It shall be paid for those sewers that require rodding, root cutting or additional cleaning as defined in “Sewer Cleaning” to accomplish to end result.

Payment shall be at contract unit price per lineal foot and will be paid in addition to the unit price for cleaning sewers from manhole to manhole. All television inspection necessary to verify the cleanliness of the lines shall be incidental to this item of work. No payment will be made on sections of sewer which are not “clean” as verified by the T.V. inspection.

Meet Specifications **YES** **NO**

ROOT REMOVAL

Roots shall be removed in the sections where root intrusion is a problem. Special attention should be used during the cleaning operation to assure almost complete removal of roots from the joints. Roots shall be removed which could prevent the seating of the packer or could prevent the proper application of chemical sealants. Procedures may include the use of mechanical equipment such as rodding machines, bucket machines and winches using root cutting and porcupines, and equipment such as high velocity jet cleaners. Chemical root treatment may be used at the option of the Contractor.

Meet Specifications **YES** **NO**

CHEMICAL ROOT TREATMENT

To aid on the removal of roots and at the option of the contractor, manhole selections that have root intrusion may be treated with an approved herbicide. The application of the herbicide to the roots shall be in accordance with the manufacturer’s recommendations and specifications in such a manner to preclude damage to surrounding vegetation. Any damaged vegetation so designated by the owner or their representatives shall be replaced by the Contractor at no additional cost to the Owner. All safety precautions as recommended by the manufacturer shall be adhered to concerning handling and application of the herbicide.

Meet Specifications **YES** **NO**

CUTTING SERVICE LEAD PROTRUSIONS

The cutting of service lead protrusions shall include all labor, equipment and materials necessary to cut back service lead protrusions to a minimum of 1 inch. This work shall be accomplished with video monitored remote controlled cutting devices, or another approved method. This work shall be as directed by the Owner and shall be incidental to the cost per linear foot of cleaning the diameter specified.

Meet Specifications **YES** **NO**

MATERIAL REMOVAL

All sludge, dirt, sand, rocks, grease and other solid or semisolid materials resulting from the cleaning operation shall be removed at the downstream manhole section being cleaned. Passing material from manhole section to manhole section, which could cause line stoppages, accumulations of sand in wet wells, or damage pumping equipment, shall be permitted. If material is passed along in to previously cleaned sections, the Contractor will be required to re-clean and re-inspect the section (s), at no cost to the Owner.

Meet Specifications YES NO

DISPOSAL OF MATERIALS

All solids and semisolids resulting from the cleaning operations shall be removed from the site and disposed of at the site designated by the Owner. All materials shall be removed from the site no less often than at the end of each workday. Under NO circumstances will the Contractor be allowed to accumulate debris, ect., on site of work beyond the stated time, except in totally enclosed containers and as approved by the Owner.

Meet Specifications YES NO

FINAL ACCEPTANCE

Acceptance of sewer line cleaning shall be made upon the successful completion of the television inspection and shall be to the satisfaction of the Owner and/or Owner's Representative. If TV inspection shows the cleaning unsatisfactory, the Contractor shall be required to re-clean and re-inspect the sewer line, at no cost to the Owner, until the cleaning is shown satisfactory. In areas where TV inspection is not performed, the Owner and/or Owner's Representative may require the Contractor to pull a double squeegee (with each squeegee the same diameter of the sewer line) through each manhole section as evidence of adequate cleaning. If internal sealing is to follow the TV inspection, particular attention should be given to the adequacy of the cleaning to insure that proper seating of the sealing packer can be achieved.

Meet Specifications YES NO

2. SANITARY SEWER FLOW CONTROL

GENERAL

When sewer line depth of flow at the upstream manhole of the manhole section being worked is above the maximum allowable for TV inspection, joint treating and/or sealing the flow shall be reduced to the level shown below by operation of pump stations, plugging or blocking of the flow, or by pumping/bypassing of the flow as specified.

Meet Specifications YES NO

DEPTH OF FLOW

Depth of flow shall not exceed that shown below for the respective pipe sizes as measured in the manhole when performing TV inspection, joint treating and/or sealing.

(a) Maximum Depth of Flow	Television Inspection
6" – 10" Pipe	20% of pipe diameter
12" – 24" Pipe	25% of pipe diameter
27" – UP Pipe	30% of pipe diameter
(b) Maximum Depth of Flow	Television Inspection
6" – 10" Pipe	25% of pipe diameter
12" – 24" Pipe	30% of pipe diameter
27" – UP Pipe	35% of pipe diameter

Meet Specifications YES NO

PLUGGING OR BLOCKING

A sewer line plug shall be inserted into the line at the upstream of the section being worked. The plug shall be so designated that all or any portion of the sewage can be released. During the inspection, treating and sealing operations, flow shall be reduced to within the limits specified above. After the work has been completed, flow shall be restored to normal.

Meet Specifications YES NO

PUMPING/BYPASSING

When pumping/bypassing is required, the Contractor shall supply the pumps, conduits, and other equipment to divert the flow of sewage around the manhole section in which work is to be performed. The bypass system shall be of sufficient capacity to handle existing flow plus additional flow that may occur during a rainstorm. The Contractor will be responsible for furnishing the necessary labor and supervision to set up and operate the pumping and bypassing system. If pumping is required 24 hours basis, engines shall be equipped in a manner to keep noise to a minimum.

Meet Specifications YES NO

FLOW CONTROL PRECAUTIONS

When flow in a sewer line is plugged, blocked, or bypassed; sufficient precautions must be taken to protect the sewer lines from damage that might result from sewer surcharge. Further, precautions must be taken to insure that sewer flow control operations do not cause flooding or damage to public or private property being served by the sewers involved.

Meet Specifications YES NO

3. TELEVISION INSPECTION

MANHOLE INSPECTION

After cleaning, the manhole sections shall be visually inspected by means of closed-circuit TV. The inspection will be done one manhole section at a time and the flow in the section being inspected will be suitable controlled as specified (see 21B.02 SANITARY SEWEER FLOW CONTROL)

Meet Specifications YES NO

VIDEO EQUIPMENT

The color TV 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 of the entire periphery of the pipe. The camera "Pan and Tilt", shall be operative in 100% humidity conditions, and have a high resolution lens capable of scanning 360 degrees circumference and 270 degree in a horizontal axis to televise sewer lines and laterals. The camera, lighting, TV monitoring, and other components of the Owners/Owners Representative; and if unsatisfactory, equipment shall be removed and no payment will be made for an unsatisfactory inspection.

Meet Specifications YES NO

INSPECTION PROCEDURE

The camera shall be moved through the line in either direction at a moderate rate., stopping when necessary to permit proper documentation of the sewers condition. The camera will be stopped immediately adjacent to each service connection and rotated to allow viewing into the service lead. This will allow verification that the lead is in service and provides accurate stationing for the connection. All protruding service connections shall be clearly identified on the television inspection log sheets and in the video tape recordings. In no case will the TV camera be pulled at a speed greater than 30 feet a 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 sewer condition of the sewer conditions shall be used to move the camera through the sewer line. If, during the inspection operation, the TV camera will not pass through the entire manhole section, the Contractor shall set up their equipment so that the inspection can be performed from the opposite manhole. If, again, the camera fails to pass through the entire manhole section, the inspection shall be considered complete and no additional inspection work will be required.

If the camera encounters a dip in the sewer such that the water is standing above the springline of the sewer pipe, and/or if the camera lens becomes 75% submerged for more than 10 consecutive feet because of this condition, the camera rig shall be withdrawn and the sewer line shall be plugged upstream of the section being inspected (see 21B.02.03 PLUGGING BLOCKING) and the camera re-inserted. If required, the Contractor shall follow requirements for bypassing the flow as stated in section 21B.02.04 PUMPING/BYPASSING. Or, at the decision of the Owner, the Contractor shall insert the cleaning equipment and draw down the flow in-front of the camera. The camera shall stay at least 10 feet behind the cleaning equipment. At all times, back flooding into the reach from the adjacent section shall be prevented.

Televising shall not be performed if there is any fog in the sewer such occurs during cold weather conditions. All television inspections shall be observed by the designated representative of the Owner. Any television inspection performed in the absence of the representative of the Owner will not be considered for payment.

Meet Specifications YES NO

COMMUNICATION EQUIPMENT

When manually operating winches are used to pull the TV camera through the line, radios or cellular phone or other suitable means of communication shall be set up between the two manholes of the section being inspected to insure good communication between members of the crew.

Meet Specifications YES NO

MEASUREMENTS

The importance of accurate distance measurements is emphasized. Measurement location of defects shall be above ground by means of a meter device. Marking on the cable, or the like, which would require interpolation for depth of manhole, will not be allowed. Accuracy of the distance meter shall be checked by use of walking meter, roll-a-tape, or other suitable devices, and the accuracy shall satisfactory to the Owners Representative.

Meet Specifications YES NO

DOCUMENTATION

Documentation of TV results shall be as follows:

- A. TV Inspection Logs: Printed location records shall be kept by the Contractor and will clearly show the location in relation to an adjacent manhole of each infiltration point observed during inspection. In addition, other of points of significance such as locations of building sewers, unusual conditions, roots, storm sewer connections, broken pipe, presence of scale or corrosion and other discernible features will be recorded and a copy of such records will be supplied to the Owner/Engineer. Upon completion of the project, a digital copy of all inspection reports shall be submitted to the Owner/Engineer. The Contractor will use a computer generated reporting system that enables the sorting of information as needed by the Owner. A copy of the software needed to properly manipulate this data will be supplied to the Owner/Engineer at no additional cost to the Owner/Engineer.

If more than one inspection report is generated and submitted for the same reach, the report providing the most detail will be used payment. All other report will reports will be for informational purposes only, and any inspected lengths previously paid for will be deducted from the Contractor.

The following information shall be recorded on the logs:

1. Date
2. Pipe Size
3. Inspector (operator) name
4. Project Name
5. Location of Current Taping
6. Upstream and Downstream Manhole Numbers, Address of Closet House and Street Name
7. Camera Direction
8. Direction of Flow
9. Wye Location and Condition by Station and Quadrant
10. Type of Pipe
11. Type of Pipe
12. Manhole Condition
13. Drop from Manhole Rim to Sewer Invert
14. Cross Section or Profile of Sewer
15. Pan View of Sewer

- B. Photographs: The Contractor shall furnish all equipment required for taking instant photographs of the view, which appears on the monitor. During the course of the inspection, the Owner shall indicate the specific views, which are to be photographed. Photographs shall be digitally captured from the video tape. In the interest of quality, photographs taken from the monitor will not be taken.
- C. Videotape Recording: The purpose of tape recording shall be to supply a color visual and audio record of problem areas in the lines that may be replayed. The video tape shall be recorded of spliced such that the sewer lines are recorded in consecutive order. Videotapes may not jump between different areas. All runs on the same street are to be shown continuously on one tape or more if necessary, and shall not be combined with runs from other areas. Each videotape shall have a label that identifies the sewer lines taped and date of inspection. Sound quality and clarity must be clear and consistent, and must not provide any audio feedback noise. All defects found during inspection must be narrated properly. The Owner/Engineer will be required the Contractor to provide accurate videotape recording prior to payment. Videotape recording playback shall be the same speed that it was recorded. Slow motion or stop-motion playback features may be supplied at the option of the Contractor. Title to the tape shall remain with the Contractor; however, the owners reserve the right to any or all of the tapes at the completion of the project. The Contractor shall have all videotapes and necessary playback equipment readily accessible for review by the Owner during the project, after which time the tapes may be erased at the Contractors Option. The Inspection logs shall follow the same order as the video tapes.

Meet Specifications YES NO

4. **METHOD OF MEASURING AND BASIS OF PAYMENT FOR SANITARY SEWER CLEANING AND TV INSPECTION**

The Item “Heavy Sanitary Sewer Cleaning and TV Inspection (of size specified)” will be measured by the length in lineal feet (LF) horizontally along the sanitary sewer from center of the manhole to center of manhole. Payment for this item will be made on the length of sewer actually inspected, upon agreement with the Owner.

The Contract unit price lineal feel for “Heavy Sanitary Sewer Cleaning and TV Inspection (of size specified)” shall be payment in full for all labor, material and equipment necessary to complete this item including but not limited to: heavy sanitary sewer cleaning (including removing dirt, grease, rocks, sand, calcium carbonated buildup, root removal and treatment, cutting of service lead protrusions and other obstructions from the sewer lines and manholes), material removal and disposal, TV inspection, preparation of TV inspection logs/reports, with management software (including technical support as needed for a minimum of one year), sanitary sewer flow control (including plugging, blocking, or pumping/bypassing, traffic control, instant photographs, and video tape recordings.

Payment for this item will be made upon receipt of the final TV inspection tapes and logs. No payment will be made for lengths of sanitary sewer where the lens is obscured by debris which should have been removed during cleaning or on sections of sanitary sewer which were not recorded due to obstruction or collapse.

If an obstruction in the sanitary sewer line prohibits the continuation of the TV inspection, the Contractor shall setup on the other manhole and continue video taping in the reverse direction until the obstruction is met. Payment for reverse setup will be based upon the total footage videotaped. No Additional payment will be made for reverse setups.

Meet Specifications YES NO

Sanitary Sewer Cleaning – 8
SEWER GROUTING

SEWER PIPE JOINT SEALING, MAIN SEWERS (PACKER METHOD)

1. INTENT

It is the intent of the sewer pipe joint sealing work to seal sewer pipe joints which have visible leaks or potential leaks using the internal joint sealing method. It is realized that this method may only be used on sewer pipe sections in sound physical condition. Longitudinally cracked or broken pipe will not be sealed. When bell cracks or chips are evident from pipe sections offsets, sealing may be undertaken where the offset is small enough to allow proper seating of the seating packer on both sides of the joint to be sealed.

Meet Specifications **YES** **NO**

2. EQUIPMENT

The basic equipment shall consist of a pan & tilt closed-circuit television system, necessary chemical sealant container, pumps, regulators, valves, hoses, ect., and joint sealing packers for various sizes of pipe. The packer shall be cylindrical and have a diameter less than the pipe size and have cables attached at each end to pull in through the line.

Meet Specifications **YES** **NO**

3. JOINT SEALING PROCEDURE.

Joint sealing shall be accomplished by forcing joint sealing material into or through faulty joints by a system of pumps, hoses, and sealing packers. Jetting or driving pipes from the surface that can be damage or cause undermining of the pipelines shall not be allowed. Under-covering the pipe by excavation of pavement and soil (which would disrupt traffic, undermine adjacent utilities and structures, and cause further damage to the pipelines being repaired) shall not be allowed. The packer shall be positioned over the faulty joint by means of measuring device and the closed-circuit television camera in the line. It is important that procedure used by the Contractor for positioning be accurate to avoid over-pulling the packer and thus not effectively sealing (grouting) the intended joint. The packer ends (end element, sleeves) shall be expanded using controlled pressure. The expanded ends shall seal against the inside periphery of the pipe to form a VOID area at the faulty joint now completely isolated from the remainder of the pipeline. In to this isolated area, sealant materials shall be pumped through the hose system at controlled pressures, which are in excess of groundwater pressures to the point of refusal. Refusal shall be deemed as the point of blow-by on the packer's bladders at any point after a minimum of ¼ gallon of sealant per inch diameter has been pumped into the defective joint. The pumping unit, metering equipment, and the packer device shall be designed so that proportions and quantities of materials can be regulated in accordance with the type and size of the leak being sealed.

Meet Specifications **YES** **NO**

4. JOINT SCALING VERIFICATION

Upon achieving refusal at each joint, the packer shall be deflated, moved away from the joint to break away the doughnut of gel formed by the packer VOID. The injection port on the packer shall be cleared with a quick burst of pressure test fluid such that the Void pressure meter reads zero pressure. Should the VOID pressure meter not read zero, the Contractor shall clean his equipment of residual grout material or make the necessary equipment repairs/adjustments to produce accurate VIOD pressure readings. Joints that fail to meet the specified test criteria shall be resealed and retested until criteria can be met in order to receive payment.

Meet Specifications YES NO

5. RESIDUAL SEALING MATERIAL

Residual sealing materials that extend into the pipe, reduce the pipe diameter, or restrict the flow shall be removed from the joint. The sealed joints shall be left reasonably "flush" with the existing pipe surface. If excessive residual sealing materials accumulate in the line (and/or if directed by the engineer) the manhole section shall be cleaned to remove the residual materials.

It is intended that no rehabilitation by chemical grouting shall be performed on any sanitary sewer line that has been scheduled for open cut point repair, replacement or other work involving excavation or new connections until the scheduled work has been completed, or as otherwise authorized by Engineer.

No joint shall be considered sealed unless, while under continual pressure, a minimum of ¼ gallon per inch of pipe diameter has been applied, i.e. 2 gallons for 8" pipe. This is to ensure that sufficient chemical has been dispensed into the soil surrounding the joint and that a temporary seal has not been made by applying a minimum amount of chemical to the void and joint area inside the pipe. Sealant shall be pumped "to resist" sealant volume shall not exceed ½ gallon per inch diameter without authorization from the engineer.

Gel times shall not less than 20 sec. unless approved by Engineer.

No testing or chemical grouting of pipe joints will be allowed in the absence of the Engineer's observer.

Meet Specifications YES NO

6. RECORDS

Included in the records for joint sealing shall be the test pressure before and after sealing. The amount of grout material used to seal the joint shall also be noted.

Meet Specifications YES NO

7. WARRANTY

All sewer pipe joint sealing work performed shall be guaranteed against faulty workmanship and/or materials for a period of one year after completion of work.

Prior to the expiration of the guaranty period, the Engineer/Owner shall select an initial retest area consisting of specific manhole selections. Manhole sections to be retested shall be randomly selected throughout the project area and shall be representative of the majority of the sealing work originally performed. The initial test area shall consist of 10% of the linear feet contained in the original project.

Within the initial test area, the contractor shall retest all previously sealed joints as specified. Any joints failing the retest shall be resealed. If the failure rate of the retested joints is less than 2% of the joints retested, the work shall be considered satisfactory and no further retesting will be required.

If, in the initial retest area, the failure rate of the retested joints exceeds 2% of the joints retested, an additional retest area of equivalent size shall be selected and all previously sealed joints shall be retested. This additional testing and sealing, if necessary, will continue until failure rate is less than 2% is met.

Any additional testing/sealing required beyond the initial retest area shall be accomplished at no cost to the Owner.

Should as much as 25% of the original project be retested and fail to meet the 2% requirement, the Contractor will be required to provide the same number of crews as utilized in the original project so that the retesting will proceed at a more rapid rate.

Meet Specifications YES NO

8. MEASUREMENT AND PAYMENT

Sealing of joints will be measured for payment by each joint actually sealed and accepted by the Engineer.

Payment will be made for the quantities measured at the unit bid price, including labor and equipment required to seal defective sewer joints.

Payment shall include subsequent testing of sealed joints and resealing and retesting of the sealed joints. Also included will be the removal of any excess grout material.

No payment will be made for any work or materials necessary under provisions of the warranty work.

Meet Specifications YES NO

SPECIFICATION GUIDELINES FOR TESTING AND SEALING LATERAL CONNECTIONS IN A SANITARY SEWER SYSTEMS FROM THE MAINLINE SEWER

PREPARATORY PROCEDURES

- A: Cleaning of the mainline and lateral connection shall be performed by the Contractor and is to be adequate for seating a lateral packer in the main line and inserting and seating an inflatable sealing bladder in the lateral. The lateral connection shall be clean of obstructions and roots. Payment of cleaning shall be per linear foot of mainline from center of manhole to center of manhole and per lateral.
- B: Videotaped CCTV inspections shall be done of mainline from manhole to manhole and in each lateral connection. A pan and tilt camera, from mainline, will normally be acceptable. A Lateral Connection Data Report shall be originated at the time of the inspection using the form shown in Annex "A". A separate Lateral Connection Data Report shall be filled out for each lateral with all the required information and produced to the Owner's representative.
- C: Services protruding more than 5/8" into the mainline shall be cut back or otherwise removed to avoid interference with testing and sealing equipment. The cutting of the protruding laterals shall be paid at unit price.

Meet Specifications _____ **YES** _____ **NO**

THE LATERAL SEALING PACKERS

The Lateral Sealing Packers are operated from the mainline sewer. It shall be designed to accommodate the various sealing bladders for 4", 5" and 6" diameter laterals. The sealing bladder shall have an expandable end bulb. The void or grout chamber of the packer shall be minimal to limit the amount of inefficient grout. A sensing unit located within the void area shall accurately transmit the pressure readouts to the control panel at the grouting truck. The packer must have one connection for the test medium and two connections for the two-component grout. Each connection shall have its own port in grouting chamber and be closed by an adjustable non-dripping check-valve set to open at approximately 20 psi..

Meet Specifications _____ **YES** _____ **NO**

TESTING OF LATERAL

The packer and sealing bladder are inflated to isolate the area around the connection. An Air pressure of 5 psi is applied into this isolated void, the air supply is then shut off and the time for the pressure drop from 5 psi to 3 psi is measured. The test is considered positive if the time delay exceeds 15 seconds. Otherwise the lateral is considered to have failed the test and shall be grouted. The result of the air test is recorded on the Lateral Connection Data Report form. All laterals shall be tested unless it is obvious that they are leaking. Payment for testing laterals shall be at the unit price per lateral connection.

Meet Specifications _____ **YES** _____ **NO**

SEALING LATERAL

Laterals which do not pass the air test shall be tested. The lateral packer remains in position, maintaining the isolated void. Two-component chemical grout sealant is pressure injected through the lateral packer into the isolated void. The grout material is then forced into the soil through leaking cracks and pipe defects. The pumping rate and reaction or gel time must be chosen to ensure that enough grout will be placed outside the pipe to provide an effective seal. Typically a gel time of 20 seconds is acceptable when using a low void packer. The pump capacity must be sufficient to initially fill up the isolated void before the gelling of the two-component grout. After filling up the isolated void, the pumping should be adjusted to bring up and maintain a back pressure of 8 psi into the isolated void at the mainline level. When the time for a drop of pressure of 8 psi to 6 psi exceeds 20 seconds without pumping, the sealing is considered successful. However, when the effective quantity of grout pumped exceeds one gallon per foot of sealing distance plus 3 gallons it will be suspected that there is unseen caves or honeycomb structures outside of pipe and the applicator shall try to build grout dams by repetitively pumping and curing the grout until the area is dammed off and the refusing pressure of 8 psi is obtained (to avoid plugging the crevices from the inside, the pump stroke interval shall be shorter than the gel time). The engineer representative may determine that the grout consumption is too high and stop the subsequent attempt to seal a lateral. The unit price to seal a lateral and effective grout pumped will be paid even if the lateral was not effectively grouted. The effective volume of grout pumped is recorded on the lateral data sheet.

The effective volume of grout is the total volume pumped less the void volume of the packer chamber. The volume of the packer chamber is measured in the above ground lateral and pipe connection set up by simulating the actual sealing, using water only, and measuring the quantity of water necessary to fill up the void area.

The amount of chemical per pump stroke shall be measured from time to time and then the number of pump strokes could be used to measure the amount of chemical delivered to each lateral. The payment for sealing laterals shall be at the unit price per lateral plus the cost per gallon of the effective volume of grout pumped.

The cost of the grout is not an important item considering the expectancy of the repair is directly proportional to the effective volume of grout pumped. The payment of grout as a separate item is to remove the incentive to pump to little grout.

Meet Specifications YES NO

FLOW VERIFICATION

It is the responsibility of the Contractor to verify that the sealing of the lateral connection did not restrain the flow and to remove any grout which would significantly restrain the flow. Lateral flow shall be verified after the sealing of every lateral. When the lateral is being viewed with a pan and tilt camera, an attempt is to be made to obtain a water flush by the occupant. If the water flow is abnormal, it is assumed that the building sewer is blocked with grout and must be cleared. If a water flush can not be obtained and if no other full proof technique could be used, the contractor shall inspect the lateral 3 feet further than the sealing distance. The Contractor remains responsible for checking and cleaning the lateral even if his verification is accepted by engineer.

(Optional) The Contractor shall attach to the door of each home or building for which lateral have been grouted, a notification to the occupant stating that the lateral servicing this listed address was grouted on this particular date and if any blockage of sanitary flow occurs, the occupant should call the contractor. The Contractor shall supply these notification forms.

Meet Specifications YES NO

QUALITY CONTROL BEFORE MONTHLY PAYMENT

Before payment of the monthly estimates, the engineer will select sections representing approximately 10% of the quantity of the sealed lateral connection. The selected sections shall be cleaned of residual grout with an hydraulic jet cleaner and the sealed laterals shall be air tested and resealed if necessary. If the failure rate exceeds 2%, an additional retest area of equivalent size shall be selected in which the sealed laterals shall be tested.

Additional testing will continue until failure rate of less than 2% is met. Should as much as 25% of work be tested and fail to meet the 2% requirement, the Contractor shall have to test and reseat the totality of work. Laterals failing the test shall be resealed at the Contractor's expense.

Meet Specifications **YES** **NO**

QUALITY ASSURANCE

The work of the Contractor shall be warranted for a period of 12 months following substantial completion. At a time agreed to by engineer (approximately 12 months after initial sealing and preferably during a period of high groundwater) the contractor shall do a videotaped CCTV inspection of the mainlines with a pan and tilt camera. They should note the continuous flow of all the laterals and visible infiltration from the sealed portions of the laterals. The previously sealed portions of the laterals showing infiltration shall be resealed at the Contractors expense.

If the quality assurance, the engineer will select sections representing approximately 10% of the total work. The selected sections shall be cleaned and the laterals air tested (same procedure as outlined above). Laterals failing the test shall be resealed at the Contractor's expense.

Meet Specifications **YES** **NO**

CURED-IN-PLACE SECTIONAL PIPE LINING

PART 1 GENERAL

1.01 Scope

The work specified in this section includes all labor, materials, accessories, equipment and tools necessary to install and test cured-in-place sectional pipe liners. The finished product must be able to resist the corrosive effects of the raw sewer effluent, hydrogen sulfide gasses, or any other element common to sewer systems. The liner must adhere to the host pipe, and be able to stop infiltrating water without the use of chemical grout in most cases. Any variations of the following specifications must be submitted to the Engineer 7 days prior to bid date for approval. If bidder does not meet qualifications of installation as stated in section 1.02 and plans to use another installer they also must be submitted 7 days prior to the bid for approval.

Meet Specifications YES NO

1.02 Qualifications of Bidder

At the time of submission of the bid, Bidder must possess, and be able to provide a certificate of competency and licensing agreement from the liner manufacturer. In order to hold the owner harmless of any legal actions the bidder must provide copies of lines patents and authorization to install the system. He must also have 5 years experience installing product and provide proof that some of that experience was in the area that the new work is to be performed or documentation that similar repairs have been done by the Contractor. Installer must have completed a 2-day training class at the manufacturer's training facility (this does not mean on site or satellite courses).

Meet Specifications YES NO

1.03 Product Qualifications & Products

Liner system must have a proven record of being installed for a minimum of 12 years. Liner size to be fabricated to fit internal circumference of the conduit to be repaired. Finished liner shall extend 1 foot beyond area to be repaired and must adhere to the host pipe and stop migrating water without using a joint for mechanical seal. Liner is to be made out of 2 layers of fiberglass sewn together and an internal layer to be impregnated and hold epoxy. Felt decreases the strength of the epoxy and is not to be used. Liner is to be impregnated of both sides to insure saturation of liner.

Epoxy needs to be a 3-component system, 1 of 100% solid epoxy and 2 separate activators, which enable the installer to control the work and set time depending on weather conditions, or the time needed to install. Installation bladders need to be soft, flexible and designed to enter and exit most pipe lines without workers entering confined space and also have flow through capability. Bladder needs to inflate from center of liner outward on both ends to force debris and water out from under liner. Bladder to be low pressure (less than 18 psi.) so as not to make the damaged area to be repaired worse.

Epoxy has to be formulated and packaged at the same facility. Manufacturer must be inspected at least twice a year by NSF inspectors that check the product consistency and that there is no contamination of product. Epoxies are to be primarily Hydrophobic in nature to prevent material loss during installation. Steam cured systems are not to be used due to damage that can occur in certain conduit, therefore ambient cured epoxy is to be used. The liner system shall be Stephen's Technologies New Life Liner System or an approved equal.

Meet Specifications YES NO

2.04a Design Parameters**Pipe Condition**

Partially Deteriorated (By the requirements of ASTM F1216, fully deteriorated pipe is assumed to be structurally unsound and incapable of carrying the design loads, i.e. collapsed. If the pipe is still supporting the design loads, it is partially deteriorated.)

Liner Parameters

Design Life	50 Years
Safety Factor Against Buckling	2
Initial Flexural Modulus	822000 psi.
Long Term Flexural Modulus	739800 psi.
Initial Flexural Strength	20815 psi.
Long Term Flexural Strength	18735 psi.
Poisson's Ratio	0.30
Enhancement Factor	12.00
Manning's Roughness Coefficient	0.0100

Existing Pipe Factors

Ground Water Height	50% of Cover Height
Ovality	5%
Hydraulic Gradient	0.1100
Minimum SDR	100

Liner Thickness Calculation Parameters

Bedding Constant	0.1
Deflection Lag Factor	1.5
Design Deflection	5.0 %
Hazen-Williams Coefficient	130
Lateral Earth Pressure Coefficient	0.130

Because the liner system bonds to the host pipe at greater than 3000 – psi tensile shear, the enhancement factor is increased to 12.0. This takes into consideration the bonding to the host pipe, the stabilization of any exposed soil, and the support derived from the surrounding structure.

Meet Specifications YES NO

2- Cured-in-Place Sectional Pipe Lining

TABLE 02674-1

**MINIMUM LINER THICKNESS
IN (MM) PERDEPTH OF PIPE**

HOST PIPE ID	0-8 FT. DEEP	8-12 FT. DEEP	12-16 FT. DEEP	16-20 FT. DEEP
8 inch	3	3	3	3
10 inch	3	3	3	3
12 inch	3	3	3	3
15 inch	3	3	3	4.5
18 inch	3	3	4.5	4.5
24 inch	3	3	4.5	4.5
30 inch	4	5	5.5	6
36 inch	4.5	6	6.5	7

2.05 Epoxy Resin

A 3-component system and must adhere to host pipe.
The mixed components of the resin shall have the following properties:

Item	Criteria
1. Solids Content	100 % Weight
2. Pot Life	90 minutes @ 70 degrees F
3. Shelf Life	At least 1 Year (sealed)
4. Viscosity	18,000 cps (average @ 70%)
5. Density	12 pounds per gallon
6. Shore D Hardness	
a. 7 Days – RT	82
b. 7 Days Water – RT80	

3- Cured-in-Place Sectional Pipe Lining

The cured epoxy resin material shall have the following properties:

Item	Test Value	Reference Standard
Tensile Strength	14,200 psi.	ASTM D-638
Compression Strength	18,900 psi.	ASTM D-695
Flexural Strength	20,815 psi.	ASTM D-790
Hardness	80-83 Shore D	ASTM D-2240
Impact Resistance	160 inch-pounds	NBS-PS55-72
Heat Distortion Temperature	220 Deg. F	ASTM D-648
Ultimate Elongation	4.5% ASTM D-638	
Adhesive Tensile Shear	> 3,000 psi.	DOT SPEC 926-3
Modulus of Elasticity	822,000 psi	ASTM D-790

Meet Specifications YES NO

3.01 Cleaning Sewer Lines

It is the responsibility of the contractor to inspect damage conduit and notify the Engineer if the conditions have worsened or any complications have arisen, prior to any lining of the pipe so designated. It shall be the responsibility of the Contractor to remove internal deposits from the pipeline in accordance with the section on (Cleaning and TV Inspection)

Meet Specifications YES NO

3.02 Television Inspection

Television inspection shall be performed in accordance with section (Sanitary Sewer Cleaning and TV Inspection)

Meet Specifications YES NO

3.03 Flow Bypassing

Flow Bypassing shall be performed in accordance with section (Sanitary Sewer Cleaning and TV Inspection, Pumping/Bypassing)

Note: If the repair can be made in a few hours, bypass pumping may not be required. The Placement carriage shall be equipped with a bypass section to allow flow once liner is pressed into place.

Meet Specifications YES NO

3.04 Line Obstructions

It shall be the responsibility of the Contractor to clear the line of obstructions.

Meet Specifications YES NO

4- Cured-in-Place Sectional Pipe Lining

3.05 Liner Installation

Impregnate the liner with the 100% solids epoxy; drop cloths, tarpaulins, ect. shall be used to prevent epoxy material from contacting the adjacent ground. Place the liner on the placement carriage and maneuver carriage and liner into position with the use of a video camera. Force the liner against the inside

wall of the damaged host pipe allowing 100% solids epoxy resin to permeate into any cracks in the host pipe. Allow lines to cure for approximately 2 hours in accordance with the liner manufacturer's recommendations. Retract the placement carriage and remove from pipe.

Meet Specifications YES NO

3.06 Acceptance

The finished liner shall conceal the entire length of the repair plus one foot on both sides. The liner shall be free as commercially practicable from visual defects, damage, deflection, holes, delamination, uncured resin, and the like. There shall be no visible infiltration through the liner or from behind the liner.

Meet Specifications YES NO

3.07 Cleanup

After the liner installation has been completed and accepted, the Contractor shall clean up the entire project area and return the ground cover to grade. All excess materials and debris not incorporated into the permanent installation shall be disposed of by the contractor.

Meet Specifications YES NO

3.08 Warranty

During the warranty period, any defects which affect the integrity or strength of the pipe shall be repaired at Contractor's expense in a manner mutually agreed upon by the Owner and the Contractor.

Meet Specifications YES NO

5- Cured-in-Place Sectional Pipe Lining

SPECIAL PROVISIONS

- 1: Sewer tapes of past projects will be made available for Contractor viewing by appointment only. Contact Ryan Delk at (937) 548-2215 at the Street Department to schedule an appointment.
- 2: The estimated amount of debris in the line is unknown. The contractor will not be compensated for any additional heavy cleaning, which may be needed to complete the project.
- 3: Under no circumstances will material be allowed to flow downstream of sewer which is out of work zone. The contractor will clean and vacuum debris at no extra cost to the Owner, if this occurs.
- 4: Televising is to be done at low flow time and shall be coordinated during cleaning along with City Inspector.
- 5: Television inspection reports are to be done using software similar in format to that of Wincan America software of approved equal.
- 6: All sewer joints and laterals will be air tested and sealed in accordance with the specifications with chemical grouting.
- 7: The Contractor shall have a minimum of 10 years experience in pipeline cleaning, televising, and joint testing and sealing.
- 8: All work will coordinated with The City of Greenville and will not be performed without an inspector present.
- 9: Due to heavy inflow and the amount of material in sewer line, time is of the essence to complete this project; therefore the job is to be completed within 30 calendar days after receipt of the Notice to Proceed.
- 10: Contractor must furnish proof of successfully sealing a minimum of 20,000 joints within the last 5 Years.
- 11: All equipment and materials used for this project shall be approved 72 hrs. prior to submitting a bid.
- 12: All TV tapes and logs shall be supplied to the Owner prior to grouting for their decision as to what lines need grouted.
- 13: Any Company doing work with in the City is encouraged to do a site visit by contacting Ryan Delk at (937) 548-2215 at the Street Department to schedule an appointment.

2016 SANITARY SEWER GROUTING PROPOSAL

I, or we, _____ hereby propose to furnish to the City of Greenville the following Sanitary Sewer Grouting services, materials, and equipment, as advertised for the Unit Price set forth below:

EST QTY	UNIT	MATERIAL	UNIT PRICE	TOTAL PRICE
1	Lump Sum	Mobilization		
1	Lump Sum	Bonds & Insurance		
4,415	Linear Feet	Cleaning & Televising 8" to 10" Sewer Pipe		
50	Each	Cutting Service Leads		
50	Each	Mineral Deposit Removal		
3,398	Linear Feet	Test & Seal Sewer Pipe, 8" to 10" Diameter		
80	Each	Test & Seal Service Connections, 4" and 6" (4" Effective Sealing)		
1	Lump Sum	Final TV Inspection & Logs		
3,100	Gallons	Chemical Grouting Material		
1	Lump Sum	Traffic Maintenance & Control		
1	Lump Sum	By-Pass Pumping		
		TOTAL BID	-----	

TOTAL BID IN WORDS _____

TERMS _____

DATE: _____

FEDERAL ID #: _____

SIGNED: _____

COMPANY _____

NAME: _____

ADDRESS: _____

TITLE: _____

E-MAIL: _____

PHONE: _____

Bid and Contract Bond

ORC 153.571

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned _____ as principal and _____ as sureties, are hereby held and firmly bound unto the City of Greenville, Ohio as obligee in the penal sum of the dollar amount of the bid submitted by the principal to the obligee on _____ to undertake the project known as 2016 Sanitary Sewer Grouting. The penal sum referred to herein shall be the dollar amount of the principal's bid to the obligee, incorporating any additive or deductive alternate bids made by the principal on the date referred to above to the obligee, which are accepted by the obligee. In no case shall the penal sum exceed the amount of

_____ dollars. (If the foregoing blank is not filled in, the penal sum will be the full amount of the principal's bid, including alternates. Alternatively, if the blank is filled in, the amount stated must not be less than the full amount of the bid including alternates, in dollars and cents. A percentage is not acceptable.) For the payment of the penal sum well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

Signed this _____ day of _____.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above named principal has submitted a bid for the 2016 Sanitary Sewer Grouting Project.

Now, therefore, if the obligee accepts the bid of the principal and the principal fails to enter into a proper contract in accordance with the bid, plans, details, specifications, and bills of material; and in the event the principal pays to the obligee the difference not to exceed ten per cent of the penalty hereof between the amount specified in the bid and such larger amount for which the obligee may in good faith contract with the next lowest bidder to perform the work covered by the bid; or in the event the obligee does not award the contract to the next lowest bidder and resubmits the project for bidding, the principal pays to the obligee the difference not to exceed ten per cent of the penalty hereof between the amount specified in the bid, or the costs, in connection with the resubmission, of printing new contract documents, required advertising, and printing and mailing notices to prospective bidders, whichever is less, then this obligation shall be null and void, otherwise to remain in full force and effect; if the obligee accepts the bid of the principal and the principal within ten days after the awarding of the contract enters into a proper contract in accordance with the bid, plans, details, specifications, and bills of material, which said contract is made a part of this bond the same as though set forth herein;

Now also, if the said _____ shall well and faithfully do and perform the things agreed by the City of Greenville, Ohio to be done and performed according to the terms of said contract; and shall pay all lawful claims of subcontractors, materials suppliers, and laborers, for labor performed and materials furnished in the carrying forward, performing, or completing of said contract; we agreeing and assenting that this undertaking shall be for the benefit of any materials suppliers or laborer having a just claim, as well as for the obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

The said surety hereby stipulates and agrees that no modifications, omissions, or additions, in or to the terms of the said contract or in or to the plans or specifications therefor shall in any wise affect the obligations of said surety on its bond.

SIGNED AND SEALED this _____ day of _____, 20_____.

Principal_____ Surety_____

Signed_____ Signed_____

Address_____ Address_____
