

**2012
SPECIFICATIONS FOR
PROPOSALS
CITY OF TONKA BAY,
MINNESOTA**

**LINING OF 1098 LINEAL FEET
OF 9" SANITARY SEWER
BETWEEN MANHOLES**

M.H. 187-188 GLADE AVE.

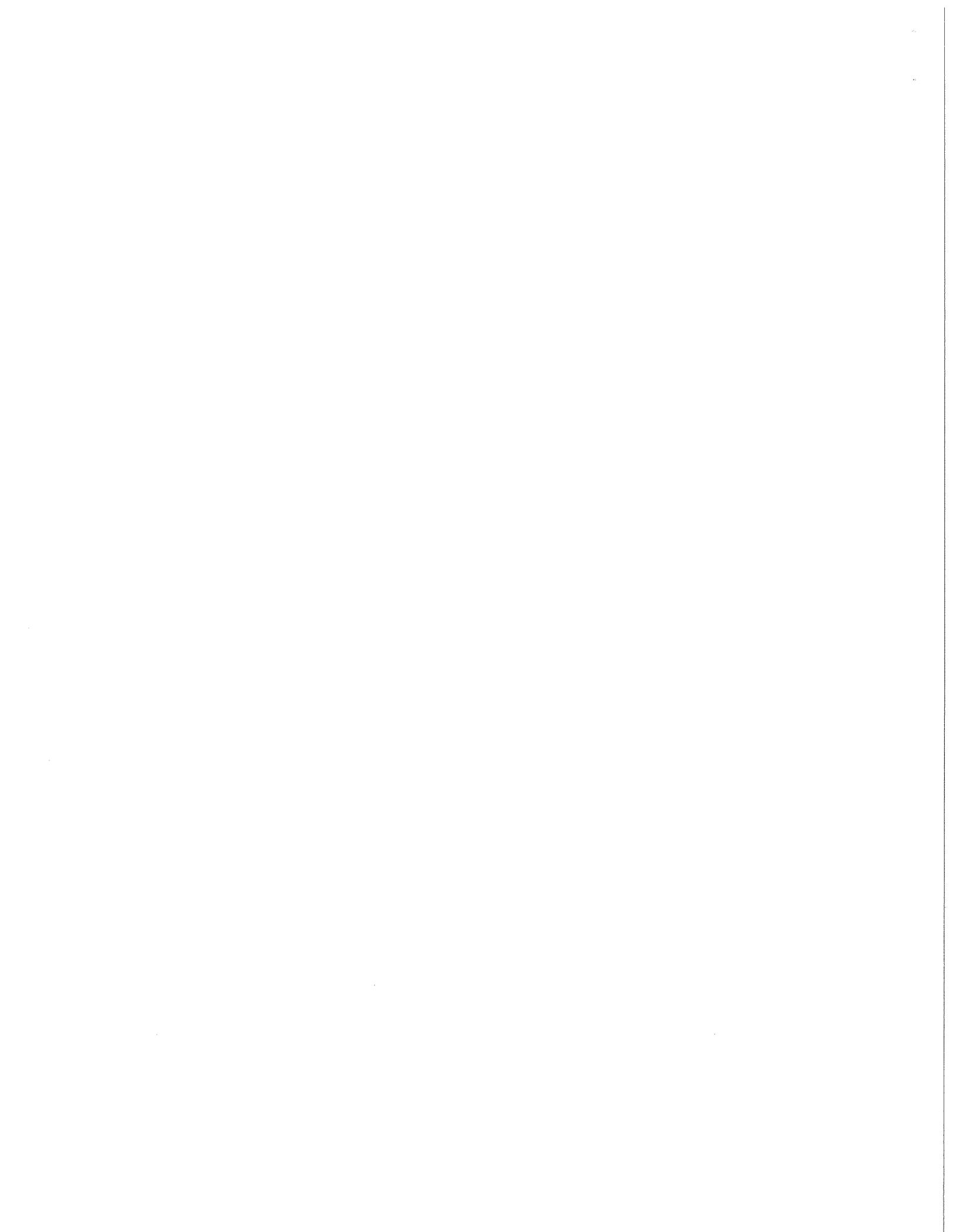
M.H. 190-192 GLADE AVE.

M.H. 178-193 CEDAR ST.

M.H. 193-194 HILLCREST AVE.

**Prepared by: City of Tonka Bay
4901 Manitou Road
Tonka Bay, MN. 55331**

**Phone (952) 474-7994
Fax (952) 474-6538**



**CITY OF TONKA BAY
2011 SANITARY SEWER LINING**

REQUEST FOR PROPOSALS

THE CITY OF TONKA BY is requesting proposals for the lining of 1098 feet of 9" VCP sanitary sewer. The project sewer lines are located between Manholes 187-192 located on Glade Ave., Manholes 178-193 on Cedar St. and Manholes 193-194 on Hillcrest Ave. Quotes shall be submitted on the attached bid form and be submitted to the City of Tonka Bay, Minnesota by Monday, February 13, 2012 at 10:00 a.m. Proposals may be faxed to (952) 474-6538 or mailed to City of Tonka Bay, 4901 Manitou Road, Tonka Bay MN 55331. Contact Public Works Superintendent Greg Kluver at (952) 474-2947 or by e-mail at gkluver@cityoftonkabay.net with any questions.

SANITARY SEWER INFORMATION

The sanitary sewer asbuilt showing the project lines is attached.

INSURANCE REQUIREMENTS

The contractor shall provide a certificate of insurance showing the following minimum coverages or greater where required by laws and regulations:

Workers' Compensation

- | | |
|---|-------------------|
| 1. State | Statutory |
| 2. Applicable Federal (e.g., Longshoremen's') | Statutory |
| 3. Employers Liability | <u>\$ 500,000</u> |

Contractor's Liability

- | | |
|---|--------------------|
| 1. General Aggregate (except products – completed operations) | <u>\$1,000,000</u> |
| 2. Products – completed operations aggregate | <u>\$1,000,000</u> |
| 3. Personal and Advertising Injury (per person/organization) | <u>\$1,000,000</u> |
| 4. Each Occurrence (bodily injury and property damage) | <u>\$1,000,000</u> |
| 5. Property damage liability insurance will provide explosion, Collapse, and underground coverages where applicable | |
| 6. Excess Liability: | |
| General Aggregate | <u>\$2,000,000</u> |
| Each Occurrence | <u>\$2,000,000</u> |

Automobile Liability:

- | | |
|--------------------|---------------|
| 1. Bodily Injury: | |
| <u>\$1,000,000</u> | Each Person |
| <u>\$1,000,000</u> | Each Accident |

Property Damage:

- | | |
|--------------------|------------------|
| <u>\$1,000,000</u> | Each Accident OR |
|--------------------|------------------|

2. Combined Single Limit (Bodily Injury and Property Damage):
\$1,000,000 Each Accident OR

CONTRACTOR'S GENERAL WARRANTY AND GUARANTEE:

The CONTRACTOR shall guarantee all work and equipment for a period of one year.
The CONTRACTOR shall provide performance and Payment Bonds for the full amount of the bid.

Contractor's Name _____
Telephone: _____

BID FORM

PROJECT IDENTIFICATION:

**CITY OF TONKA BAY, MINNESOTA
LINING OF 1098 LINEAL FEET
OF 9" SANITARY SEWER
BETWEEN
Manhole 178 to 193
Manhole 187 to 192
Manhole 193 to 194**

THIS BID IS SUBMITTED TO: CITY OF TONKA BAY
4901 MANITOU ROAD
TONKA BAY MN 55331

1. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an agreement with OWNER in the form included in the Contract Documents for the BID PRICE and within the Bid Times indicated in this bid and in accordance with the other terms and conditions of the Contract Documents.
2. BIDDER accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for thirty-five days after the day of the Bid opening. BIDDER will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bidding Requirements within fifteen days after the date of OWNER'S Notice of Award.
3. In submitting the Bid, BIDDER represents, as more fully set forth in the Agreement, that:
 - (a) BIDDER has examined and carefully studied the Bidding Documents and the following Addenda, receipt of all which is hereby acknowledged: (List Addenda by Addendum Number and Date)

 - (b) BIDDER has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance and furnishing of the Work.
 - (c) BIDDER is familiar with and is satisfied as to all federal, state and local laws and regulations that may affect cost, progress, performance and furnishing of the Work.

- (d) BIDDER has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site. BIDDER acknowledges that such reports and drawings are not Contract Documents and may not be complete for BIDDER'S purposes. BIDDER acknowledges that OWNER does not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Bidding Documents with respect to Underground Facilities at or contiguous to the site. BIDDER has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and underground facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by BIDDER and safety precautions and programs incident thereto. BIDDER does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the times, price and other terms and conditions of the Contract Documents.
- (e) BIDDER is aware of the general nature of Work to be performed by Owner and others at the site that relates to Work for which this Bid is submitted as indicated in the Contract Documents.
- (f) BIDDER has correlated the information known to BIDDER, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- (g) BIDDER has given OWNER written notice of all conflicts, errors, ambiguities or discrepancies that BIDDER has discovered in the Contract Documents and the written resolution thereof by OWNER is acceptable to BIDDER, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.
- (h) This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself any advantage over any other BIDDER or over OWNER.

LUMP SUM BID PRICES

Total bid for CIPP System \$ _____

- 4. BIDDER agrees that the Work will be complete and ready for final payment by June 30, 2012.
- 5. The following documents are attached to and made a condition of this Bid:
 - (a) Required Bid Security in the form of _____

 - (b) A tabulation of Subcontractors, Suppliers and other persons and organizations required to be identified in this Bid.
 - (c) A signed affidavit of non-collusion.
- 6. Communications concerning this Bid shall be addressed to:

The address of BIDDER indicated below (Contractor's Address):

- 7. Terms used in this Bid which are defined in the General Conditions or Instructions will have the meanings indicated in the General Conditions or Instructions:

SUBMITTED on _____, 2012.

State Contractor License Number _____

If BIDDER is:

AN INDIVIDUAL:

By _____ (SEAL)
(Individual's Name)

doing business as _____

Business address: _____

Phone Number: _____

A PARTNERSHIP:

By _____ (SEAL)
(Firm name)

(General Partner)

Business address: _____

Phone Number: _____

A CORPORATION:

By _____ (SEAL)
(Corporation Name)

(State of Incorporation)

By _____ (SEAL)
(Name of Person Authorized to Sign)

(Title)

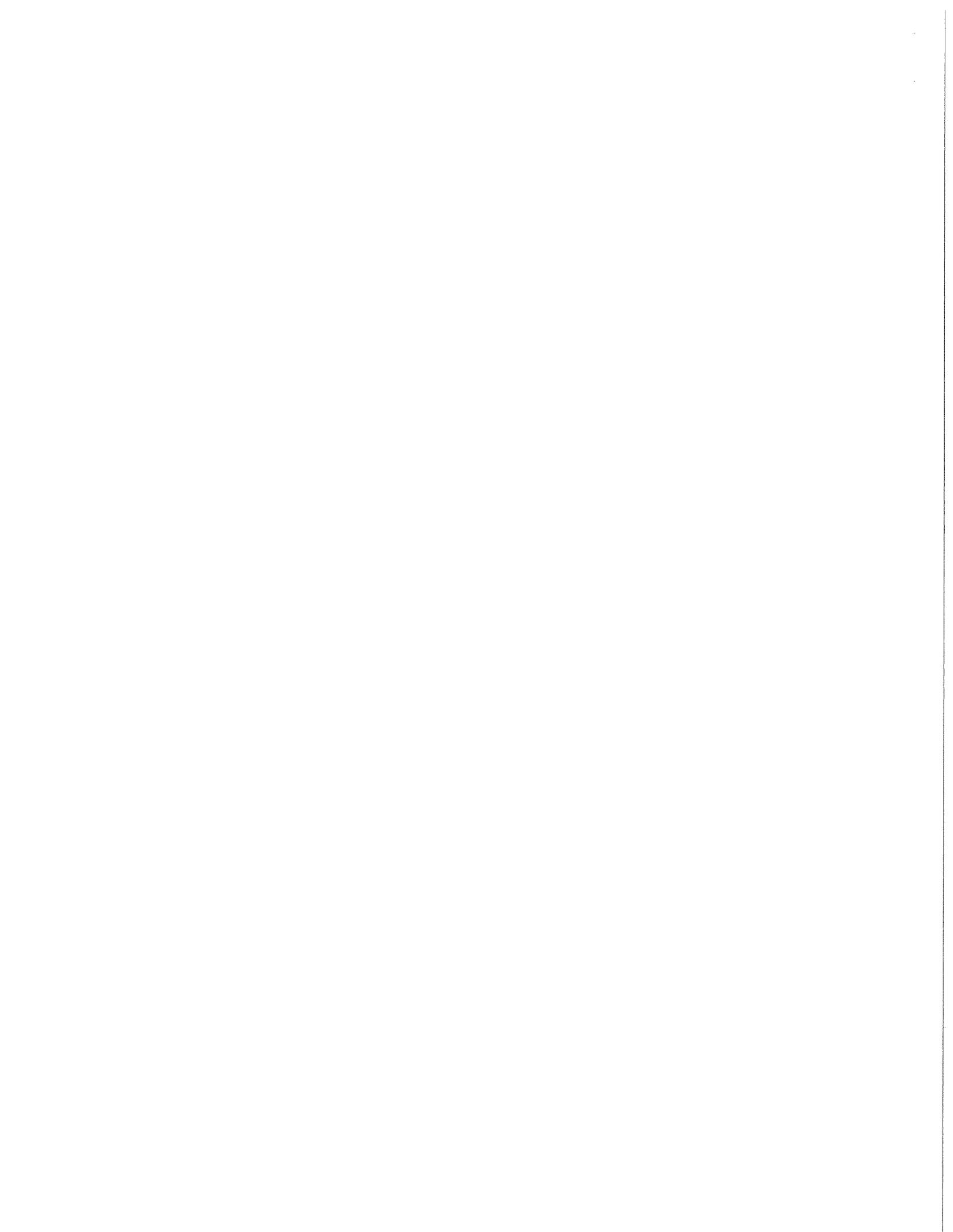
(Corporate Seal)

Attest _____
(Secretary)

Business address: _____

Phone Number: _____

Date of Qualification to do Business is: _____



**EJCDC
STANDARD FORM OF AGREEMENT
BETWEEN OWNER AND CONTRACTOR
ON THE BASIS OF A STIPULATED PRICE**

THIS AGREEMENT is dated as of the ____ day of _____ in the year 2012 by and between City of Tonka Bay (hereinafter called OWNER) and _____ (hereinafter called CONTRACTOR).

OWNER AND CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agrees as follows:

ARTICLE 1. WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

**CITY OF TONKA BAY
2012
LINING OF 1098 LINEAL FEET
OF 9" SANITARY SEWER
BETWEEN
MANHOLES 178 to 193
MANHOLES 187 to 192
MANHOLES 193 TO 194**

ARTICLE 2. CONTRACT TIME

- 2.1 The work will be completed by June 30, 2012.
- 2.2 **Liquidated Damages** – OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in paragraph 2.1 above. They also recognize the delays, expense and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay OWNER Two Hundred Dollars (\$200) for each day that expires after the time specified in paragraph 2.1 for Substantial Completion until the Work is substantially complete. After Substantial Completion if CONTRACTOR shall neglect, refuse or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by OWNER, CONTRACTOR shall pay OWNER One Hundred Dollars (\$100) for each day that expires after the time specified in paragraph 2.1 for completion and readiness for final payment.

ARTICLE 3. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:

- 3.1 CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents including "technical data".
- 3.2 CONTRACTOR has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in Triplicate. One counterpart each has been delivered to OWNER, CONTRACTOR, and ENGINEER. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or by ENGINEER on their behalf.

This Agreement will be effective on _____, 2012.

OWNER:
CITY OF TONKA BAY

CONTRACTOR:

By: _____

By: _____

(Corporate Seal)

(Corporate Seal)

Attest: _____

Attest: _____

Address for giving notices:

Address for giving notices:

4901 Manitou Road
Tonka Bay MN 55331

(If OWNER is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of Agreement.)

License No. _____

Agent for service of process:

(If CONTRACTOR is a corporation, attach evidence of authority to sign.)

2012
TECHNICAL SPECIFICATIONS
FOR SEWER RELINING
WITH CURED-IN-PLACE PIPE SYSTEM

<u>ARTICLE NUMBER</u>	<u>DESCRIPTION</u>	<u>PAGE NO.</u>
1.0	INTENT AND SCOPE	1
2.0	MATERIALS	1
3.0	DESIGN CONSIDERATIONS	2
4.0	GENERAL INSTALLATION REQUIREMENTS FOR CURED-IN-PLACE PIPE SYSTEM	3-4
5.0	SERVICE CONNECTIONS	5
6.0	INSPECTION	5
7.0	TELEVISIONING	5-6
8.0	CLEANUP	6
9.0	PAYMENT	6

2012
TECHNICAL SPECIFICATIONS
FOR SEWER RELINING
WITH CURED-IN-PLACE PIPE SYSTEM

1.0 INTENT AND SCOPE

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 (Cured-in-place pipe system) which is inverted into the original conduits by use of a hydrostatic head, and then cured by circulating hot water within the tube, (cured-in-place pipe, CIPP). The finished Insitu pipe shall extend over the installation length in a continuous, tight fitting, watertight, pipe-within-a-pipe. All liners shall be smooth walled when set. It shall be the responsibility of the CONTRACTOR for all design, materials, transportation, equipment and labor necessary for the successful completion of the relining.

The CONTRACTOR shall contact the owner/residents and businesses within the project limits to inform them of the project and provide them with any information deemed necessary for the successful performance of the contract, and to inform them of temporary sewer service disconnections.

If the CONTRACTOR damages the sewer during construction and is unable to complete the lining in a satisfactory manner, the cost of the dig and/or repairs shall be included in the unit price bid for the cured-in-place liner.

TV tapes are available from the OWNER for the majority of the sanitary sewers listed on the proposal. The BIDDER shall satisfy himself as to the condition of the sanitary sewer and the number of point repairs to be made. A separate bid will not be accepted for any point repairs and the cost for same shall be included in the bid prices included in the proposal.

2.0 MATERIALS

The minimum length of the Cured-in-place pipe system shall be that deemed necessary by the CONTRACTOR to produce a finished pipe tightly formed to the existing pipe and which effectively spans the distance from the inlet to the outlet of the respective manholes. The finished wall thickness of the liner shall be six (6) mm minimum.

The wall color of the interior pipe surface of the pipe after installation shall be a light reflective color so that a clear detail examination with closed circuit television inspection equipment may be made.

2.1 CURED-IN-PLACE PIPE SYSTEM

1. TUBE – The tube material and design considerations shall meet the requirements of ASTM F1216, Section 5.1, and modified as follows (or current ASTM standards):
 - 2.1.1 The tubes shall have a uniform thickness that when compressed at installation, pressures will equal the specified nominal tube thickness.
 - 2.1.2 The tube shall be fabricated to a size that when installed, will tightly fit the internal circumference and length of the original pipe. Allowance should be made for circumferential stretching during inversion.
 - 2.1.3 The outside layer of the tube (before inversion) shall be plastic coated with a transparent flexible material that is compatible with the resin system used. The plastic coating shall not be subject to delamination after curing.
 - 2.1.4 The tube shall be homogeneous across the entire wall thickness containing no intermediate or encapsulated elastomeric layers. No materials shall be included in the tubes that are subject to delamination in the cured Insitupipe.
 - 2.1.5 The wall color of the interior pipe surface of the Insitupipe after installation shall be white or light brown so that a clear detail examination with closed circuit television inspection equipment may be made.
- 2.2 RESIN – The resin system shall meet the requirements of ASTM F-1216.
- 2.3 WATERSTOP – The waterstop material shall be Hydrotite RS or approved equal. The waterstop gasket shall be attached to the interior wall of the sewer by an approved method prior to inversion.

3.0 DESIGN CONSIDERATIONS

1. Buckling

The CONTRACTOR shall be responsible for all aspects of the design of the liner pipe. The CONTRACTOR shall guarantee that the installed liner is capable of sustaining outside loads, resist chemical attack that normally occurs in sanitary sewer, and will maintain hydraulic characteristics over a fifty-year design life. No design shall rely on bonding to the existing pipe or rely on the remaining strength of the existing pipe. The minimum acceptable design criteria shall be as follows:

The Liner Pipe shall be designed to fit the existing sanitary sewer.

The existing sewer shall be considered to be in a fully deteriorated gravity pipe condition and that the original pipe is not structurally sound and

cannot support soil and live loads. The cured-in-place pipe shall be designed to support hydraulic, soil and live loads.

4.0 GENERAL INSTALLATION REQUIREMENTS FOR CURED-IN-PLACE PIPE SYSTEM

1. SAFETY – The installer shall carry out his operation in strict accordance with all OSHA and manufacturers' safety requirements. Particular attention is drawn to those safety requirements involving entering confined spaces.
2. TRAFFIC CONTROL – Traffic Control shall be the responsibility of the CONTRACTOR and shall conform to MMUTCD and other portions of these specifications and the contract Special Provisions. The CONTRACTOR shall open the entire roadway to traffic.
3. ACCESS – It will be the responsibility of the OWNER to locate and designate all manhole access points open and accessible for the work, and provide rights of access to these points. If a street must be closed to traffic because of the orientation of the sewer, the CONTRACTOR shall institute the actions necessary to do this for the mutually agreed time period.
4. WATER USAGE – Water is available at City hydrants for cleaning, inversion and other work items requiring water. The CONTRACTOR may use City water but shall inform the Public Works Department of such use. No fees will be charged for water.
5. CLEANING OF SEWER LINES – The CONTRACTOR shall removal all internal debris out of the sewer line that will interfere with the installation of the Cured-in-place pipe system. Gravity pipes shall be cleaned with hydraulically powered equipment, high velocity jet cleaners, or mechanically powered equipment.
6. BYPASSING SEWAGE – The CONTRACTOR shall provide for the flow of sewage around the section or sections of pipe designated for repair. The bypass shall be made by plugging the line at an existing upstream manhole and pumping the flow into a downstream manhole or adjacent system. The pump and bypass lines shall be of adequate capacity and size to handle the flow. The OWNER shall be furnished a detail of the bypass plan.
7. INSPECTION OF PIPELINES – Inspection of pipelines shall be performed by experienced personnel trained in locating breaks, obstacles and service connections by closed circuit television. The interior of the pipeline shall be carefully inspected to determine the location of any conditions which may prevent proper installation of the Cured-in-place pipe system into the pipelines and it shall be noted so that these conditions can be corrected. A videotape and suitable log shall be kept for later reference by the OWNER. The OWNER has copies of a video inspection of the sewers to be relined, and these are available for prospective bidders. However, since the deterioration of sewer is an ongoing process, and roots, solids and deposits can accumulate over

time, the CONTRACTOR shall base the design of the liner on inspections made immediately prior to installation.

8. LINE OBSTRUCTIONS – It shall be the responsibility of the installer to clear the line of obstructions such as solids, dropped joints, roots, protruding service connections and collapsed pipe that will prevent the insertion of the liner pipe. If inspection reveals an obstruction that cannot be removed by conventional sewer cleaning equipment, then the installer shall make a point repair excavation to uncover and remove or repair the obstruction. Point repairs shall be included as a part of the original bid price, and no additional compensation shall be paid therefore. Point repairs shall include restoration to the original condition.

The CONTRACTOR shall remove the protruding tap to the inside wall of the pipe. In no case shall the pipe be less than 95 percent open to flow.

At all points where the liner pipe has been exposed (such as service connection fittings, or other points where the old pipe must be removed), the liner pipe and fittings shall be encased in cement-stabilized sand or other high density material as specified by the OWNER to prevent deflection due to difference in subsidence.

After the encasement material is in place and accepted by the OWNER'S representative, backfill is placed and compacted to required finish grade in accordance with the specifications. Particular care should be taken to ensure compaction of earth beneath the lateral pipe in order to reduce subsidence and resultant bending at the lateral connection of the sewer main.

4.1 INSTALLATION FOR CURED-IN-PLACE PIPE SYSTEM

The Insitupipe installation shall be in accordance with ASTM F-1216, Section 7, with the following additional requirements:

1. The tube shall be inverted into existing host pipe. Pulled in place is *not* acceptable (ASTM 1743).
2. Prior to installation of the CIPP, the contractor shall install gasket waterstops to the interior circumference of the existing sewer at the inlet and outlet of each manhole as otherwise directed by the City of Tonka Bay.
3. RESIN IMPREGNATION. The quantity of resin used for tube impregnation shall be sufficient to fill the volume of air voids in the tube with additional allowances for polymerization shrinkage and the loss of resin through cracks and irregularities in the original pipe wall. A vacuum impregnation process shall be used. To insure a thorough wetout, the point of vacuum shall be no further than 25 feet from the point of initial resin introductions. After vacuum in the tube is established, the vacuum points shall be no further than 75 feet from the leading edge of the resin.

The leading edge of the resin slug shall be as near to perpendicular as possible. A roller system shall be used to uniformly distribute the resin throughout the tube.

4. Temperature gauges shall be placed to determine the temperature of the incoming and outgoing water from the heat source. Another such gauge shall be placed inside the tube at the remote end to determine the temperature at that location during the cure cycle.
5. Curing shall be accomplished by utilizing water under hydrostatic pressure of a vertical standpipe.

5.0 SERVICE CONNECTIONS

Active services shall be identified by the CONTRACTOR prior to lining work. After the pipe has been reconstructed and tested, only the active service connections shall be reconnected. The reconnection of services shall be done without excavation, unless otherwise specified by OWNER; this will be accomplished from the interior of the pipeline by a television camera directed cutting device. All recut service connection shall be free of burrs and frayed edges, or any restriction preventing free wastewater flow. Location of the service shall be made by inspection of the preconstruction TV tape and other proven detection.

6.0 INSPECTION

1. CIPP samples shall be prepared and tested in accordance with ASTM F1216, Section 8.1 using either method proposed.
2. Leakage testing of the CIPP shall be accomplished during cure while under a positive head. CIPP products in which the pipe wall is cured while not in direct contact with the pressurizing fluid (e.g., a removable bladder) must be tested by an alternative method approved by the City of Tonka Bay.)
3. Visual inspection of the CIPP shall be in accordance with ASTM F1216, Section 8.4.

The relined pipe shall be continuous without joints through the entire pipe length. The liner shall be free of all visible defects except those resulting from pre-lined conditions which the CONTRACTOR has noted prior to lining. There shall be no pits, pinholes, cracks or crazing, and the surface shall be smooth and free of waviness throughout the pipe. Any defects shall be repaired by the CONTRACTOR with no expense to the OWNER.

7.0 TELEVISION

Prior to final acceptance of any sanitary sewer, the CONTRACTOR shall inspect by means of remote closed circuit television equipment the entire segment of sanitary sewer, manhole-to-manhole. Sewer shall be cleaned prior to inspection. A videotape of the inspection shall be furnished to the City.

The following conditions shall apply to the sewer acceptance TV inspection:

1. The videotape shall be in DVD form with a high quality picture and sound and shall be recorded in color.
2. The CONTRACTOR shall supply the videotapes and the recording shall be done in the.
3. The TV camera shall travel through the sewer at a maximum rate of 35 feet per minute.
4. The camera shall travel downstream in all cases.
5. The lens of the camera shall be cleaned at each manhole or when directed by the OWNER.
6. The videotape shall be an on-screen display showing the following:
 - upstream and downstream manhole numbers
 - footage from upstream manhole
 - date of inspection
7. Sewers shall not be televised within 48 hours of a rainfall event greater than $\frac{1}{2}$ ".
8. The CIPP shall be re-televised one month prior to expiration of the one-year warranty. A videotape and written report shall be supplied to the City.

8.0 CLEANUP

Following testing and inspection, the CONTRACTOR shall restore all grades and surfaces to their conditions prior to construction. All surplus materials and waste shall be disposed of by the CONTRACTOR.

9.0 PAYMENT

Compensation for all work performed under this section shall be in accordance with the method of payment as designated in the Bid Form. This payment shall be considered compensation in full for all work, including labor and materials, to complete the job as specified. This work shall include point repairs and restoration of all surfaces to their original condition or better.

STATE OF _____

COUNTY OF _____

AFFIDAVIT OF NON-COLLUSION

I hereby swear (or affirm) under the penalty of perjury:

1. That I am the bidder (if the bidder is an individual), a partner in the bidder (if the bidder is a partnership) or an officer or employee of the bidder corporation having authority to sign on its behalf (if the bidder is a corporation);
2. That the attached bid or bids have been arrived at by the bidder individually and have been submitted without collusion with, and without any agreement, understanding or planned common course of action with any other vendor of materials, supplies, equipment or services described in the invitation to bid designed to limit individual bidding or competition;
3. That the contents of the bid or bids have not been communicated by the bidder or its employees or agents to any person not an employee or agent of the bidder or its survey on any bond furnished with the bid or bids, and will not be communicated to any such person, prior to any official opening of the bid or bids; and
4. That I have fully informed myself regarding the accuracy of the statements made in this affidavit.

Subscribed and sworn to before me
this _____ day of _____, 20__.

Bidder

OFFICIAL TITLE: _____

(Firm making bid or bids)