RENCHLESS

LNTERNAC

LINING



FINANCE DEPARTMENT/PURCHASING DIVISION E-mail msub@ci addison tx us

Facsimile (972) 450-7096

5350 Belt Line Road P.O. Box 9010

Addison, Texas 75001

June 17, 2004

M.B. Edwards Garver Construction, LTD 7600 S. Santa Fe, Bldg. E Houston, TX 77061

RE: Bid Tabulation Request

Dear Mr. Edwards:

I did receive your request for an itemized tabulation for Bid 03-22 Trenchless Internal Lining of Sanitary Sewer Lines on Monday June 14, 2004. As for your original request submitted October 2003, I did respond to you letting you know I did not have an itemized tabulation for the bid and that our Public Works Department should have that information. I also provided names and numbers to follow up with if necessary.

Since I do not have itemized tabulation I have made copies of the bids submitted, which I have attached. If this is not sufficient please email me at msuh@ci.addison.tx.us with further detail of the information you are looking for.

Sincerely,

Minok Suh

Purchasing Coordinator

Town of Addison

cc: Steve Chutchain Jim Pierce

Enclosures

BID FORM BID NO. 03-22

Trenchless Internal Lining of Sanitary Sewer Lines

Bidder Name (TARVET CONSTRUCTION, LATO) T.I.N 76-0603 Z 4 1 Address 7600 S. Santa Po By Eggy Mouston TX zip 7706/ Phone 713-634-0439 Far 713 X 34 0489 e-mail
Address 7600 S. Santa Po By Frit Mouston TX zip 7706/
Phone 7/3 · 634 - 0439 Fax 773 3 8 8489 e-mail

I have received, read and understand all pages of these instructions and specifications. I will abide by all areas of these specifications, and I am a legal agent of the above named company, authorized to sign this bid.

Affiant further states that Bidder has not paid, given, or donated or agreed to pay, give or donate to any officer or employee of the Town of Addison any money or other thing of value, either directly or indirectly, in procuring of the Contract.

AUTHORIZED OFFICER/OWNER <u>T. A. Sc ムッ/モ</u>

Name of Contact (print) T.A. Sahulz, or Mike Edwards

	WALL	Kigilik like kal	(OIN)	णिशार्गाःसस्य	בואַקונסוראַנוּ
1	LF	8" x 6.0mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in place for the sum of Chitty Two dollars and Cents per linear foot.		\$ 32.25	\$102,440, 4
2	LF	Pre-TV and cleaning of 8" existing sewer pipe mainline, for the sum of	3,200	\$ 2.00.	\$ 64000
3	LF	Post-TV inspection of 8" CIPP lined sever dipe mainline, for the sum of Dollars and Cents per linear foot.	3,200	\$ /, 0.0	\$3200.00
4	EA	Internal sanitary sewer service lateral reinstatement by remote cutting device, complete in place for the sum of Typ Hundred len Delland Dollars Cents per each.		\$ 210,00	\$ 8820,±

5	EA	Point repair of existing 8" sanitary sewer mainline and service connection, 0 to 10 ft in length, various depths, under concrete, complete in place for the sum of	2	\$ 4150?°	\$ 8305°°
6	EA	Point repair of existing 8" sanitary sewer mainline and service connection, 0 to 10 ft in length, various depths, under landscaped area, complete in place for the sum of	2	₹3725 <u>0</u> 0	7 <i>45</i> 0,99
.7	EA	Point repair of existing 8" sanitary sewer mainline, 0 to 10 ft in length, various depths, under concrete, complete in place for the sum of	2	\$ 4350¢	\$87007
8	EA	Point repair of existing 8" sanitary sewer mainline, 0 to 10 ft in length, various depths, under landscaped area, complete in place for the sum of Thirty FAX Lindua aventy Fort		3575°	750,00
9	EA	Remove and replace end of line cleanouts to facilitate CIPP lining, complete in place for the sum of Eight should be complete. Cents per each.	3	\$ 875 <u>00</u>	\$ 2625 <u>0</u>

TOTAL BID \$

\$ 155045.00

BID FORM BID NO. 03-22

Trenchiess internal Lining of Sanitary Sewer Lines

1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Bidder Name: HORSESHOE CONSTRUCTION 147.I.N. 10-0384048
Address 2309 S. Brith Ferrolling DW LA PORTE ZID 77571
Bidder Name: Horsestoe Couste Fran Int.I.N. 76-0389648 Address 2309 5 Britt Faroling Cly LA PORTE Zip 77571 Phone 281-478-5477 Fax 281-478-6436 e-mall Littlecatk De act. Com
I have received, read and understand all pages of these instructions and specifications. I will abide by all areas of these specifications, and I am a legal

Affiant further states that Bidder has not paid, given, or donated or agreed to pay, give or donate to any officer or employee of the Town of Addison any money or other thing of value, either directly or indirectly, in procuring of the Contract.

AUTHORIZED OFFICEROWNER JOHN R. H.

TITLE Vice President

Name of Contact (print) John R. Holt

agent of the above named company, authorized to sign this bid.

INTEN NO		il langig in the page having of data selection in Kill Mill Africa Consolination of the analysis of the state		Might Harder	UNIT TOTAL
1	LF	8" x 6.0mm trenchless rehabilitation by GIPP of existing sewer pipe mainline, complete in place for the sum of Pipe burst 4 Fourty-Nine Dollars Fifty Certs per linear foot.	•	\$ 449 <u>50</u>	\$158,4000
2	LF	Pre-TV and cleaning of 8" existing sewer pipe mainline, for the sum of			
		Dollars and	3,200	\$400	\$12,80000
		Cents per lineer foot.			, ,-
3	· LF	Post-TV inspection of 8" GIPP lined sewer pipe mainline, for the sum of			,
		Dollars and	3,200	\$ 200	\$6,4000
		Cents per linear foot.	•		
4	EA	Internal sanitary sewer service lateral reinstatement by remote cutting device, complete in Dollars	•		*
		Six kusseen Seventy-Five DollAes (Vo Cents per each.	42	\$6750	\$18,350=

5	EA	Point repair of existing 8" sanitary sewer mainline and service connection, 0 to 10 ft in length, various depths, under concrete, complete in place for the sum of Sahrupes Secent Alos Dollars and Cents per each.		\$67500	\$1,350=
6	EA	Point repair of shisting a senitary sewer mainline and service connaction, 0 to 10 ft in length, various depths, understandscaped area, complete in place for the sum of Seven Hundred Filtry Dollars and Cents per each.	2	\$750 °	\$1,500=
7	EA	Point repair of existing 8" sanitary sewer mainline, 0 to 10 ft in length, various depths, under concrete, complete in place for the sum of SELEN KNORED FIFTY Cents per each.		\$ 75000	\$1,500=
8	EA	Point repair of existing 8" sanitary sewer mainline, 0 to 10 ft in length, various depths, under landscaped area, complete in place for the sum of	2	#750°	#1,500=
9	EA	Remove and replace end of line cleanouts to facilitate CIPP lining, complete in place for the sum of HONORED DO ! IARS NO Cents per each.	3	\$2000	\$600=

TOTAL BID \$

#212,400°°

BID FORM BID NO. 03-22

Trenchless Internal Lining of Anitary Sewer Lines

Bidder Name: THE LEGITOTE TECHNOLOGIES, THE T. N. 46-3032458	
Address 702 Spirit 40 Park Dr. City Chester 1814 Zip MO 63005	•
Phone 636-530-8000 Fax 636-530-0751 e-mail	-
I have received, read and understand all pages of these instructions and specifications. I will abide by all areas of these specifications, and I am a legal agent of the above named company, authorized to sign this bid.	
Affiant further states that Bidder has not paid, given, or donated or agreed to pay, give or donate to any officer or employee of the Town of Addison any	
money or other thing of value, either directly or indirectly, in procuring of the Contract.	•

AUTHORIZED OFFICER/OWNER Level Contact (print) Gerald Addington TITLE Vice President-Project Management

IIII EVINO)	UNIT	DESGRIPTION	(Piji')	UNIT PRICE	UNIL TOTAL
1		8" x 6.0mm trenchless rehabilitation by CIPP of existing sewer pipe mainline, complete in clace for the sum of Twenty seven do llars and no Cents per linear foot.		\$ 27.00	\$86,400.00
2	LF	Pre-TV and cleaning of 8" existing sewer pipe mainlike, for the sum of Three dollars Dollars and Fifty Cents per linear foot.	3,200	\$ 3,50	\$11,200.00
3	LF	Post-TV inspection of 8" CIPP lined sewer pipe mainline, for the sum of One Dollars and Ten Cents per linear foot.	3,200	\$ 1.10	\$ <i>3,520,0</i> 0
4	EA	Internal sanitary sewer service lateral reinstatement by remote cutting device, complete in place for the sum of Pollars Fifty dollars and NO Cents per each.	42	\$ 50.00	\$ 2,100.00

5	EA	Point repair of existing 8" sanitary sewer mainline and service connection, 0 to 10 ft in length, various depths, under concrete, complete in place for the sum of	•		
	,	One hundred Dollars and	2	\$ 100.00	\$ 200,00
		NoCents per each.	· · · · · · · · · · · · · · · · · · ·	,	
6	EA	Point repair of existing 8" sanitary sewer mainline and service connection, 0 to 10 ft in length, various depths, under landscaped area, complete in place for the sum of	2	\$ 100.00	\$ 200.00
7	<u> </u>			,	
,	EA	Point repair of existing 8" sanitary sewer mainline, 0 to 10 ft in length, various depths, under concrete, complete in place for the sum of	2	\$ 100.00	\$ 200.00
8	EA	Point repair of existing 8" sanital sewer mainline, 0 to 10 ft in length, various depths, under landscaped area, complete in place for the sum of	18 2.	\$ 100.00	\$ 200.00
9	EA	Remove and replace end of line cleanouts to facilitate CIPP lining, complete in place for the sum of the Dollars and Dollars and Dollars and Cents per each.	3	\$ 100.00	\$ 300.00

TOTAL BID \$

\$104,320.00

August 28, 2003

Insituform Technologies, Inc. Gerald Addington 702 Spirit 40 Park Dr Chesterfield, Missouri 63005

Re: NOTICE TO PROCEED- BID NO. 03-22 Trenchless Internal Lining of Sanitary Sewer Lines

Dear Mr. Addington:

This document shall serve as your Notice to Proceed for the above referenced Project, and is issued and effective August 29, 2003 to provide all labor and materials as outlined in the specifications, and under the terms and conditions of the contract documents. Copy of the signed contract will follow.

The proposed improvements and work shall be completed within the time determined by Public Works Department, with the original contract price of \$104,320.00. Please include the Project name and Bid No. 03-22 on all invoices or other correspondence to the Town of Addison.

Should you have any questions, please contact my office at 972-450-7091.

Sincerely,

Minok Suh

Purchasing Coordinator

Copy: Jerry Davis Luke Jalbert



RESOLUTION NO. 003-077

A RESOLUTION BY THE CITY COUNCIL OF THE TOWN OF ADDISON, TEXAS, AUTHORIZING THE CITY MANAGER TO ENTER INTO A CONTRACT IN THE AMOUNT OF \$104,320.00 WITH INSITUFORM TECHNOLOGIES FOR TRENCHLESS INTERNAL LINING OF SANITARY SEWER LINES.

WHEREAS, a portion of the Town of Addison existing wastewater system was constructed in the early 1960's; and

WHEREAS, such a system due to material and soil and root conditions has led deterioration; and

WHEREAS, the Town has developed an annual program of replacement of deteriorated sanitary sewer mains throughout the Town; and

WHEREAS, this will provide for continued reduction in stormwater inflow and infiltration through an effort of preventive maintenance; and

WHEREAS, staff prepared engineering specifications for installation of 1,200 linear feet of trenchless internal lining within the vicinity of the Greenhaven Village and Addison on Brookhaven Apartments and along Beltway Drive, from Midway Road to Belt Line Road; and

WHEREAS, Insituform Technologies submitted the lowest responsive bid; and

WHEREAS, this bid exceeds the original budgeted amount due to a need to increase the original scope of work to meet the maintenance and repair needs in the project area; and

WHEREAS, Insituform Technologies has successfully completed similar improvements within the Town; now, therefore,

BE IT RESOLVED BY THE CITY COUNCIL OF THE TOWN OF ADDISON:

THAT, the City Council of the Town of Addison authorizes the City Manager to enter into a contract in the amount of \$104,320.00 with Insituform Technologies for trenchless internal lining of sanitary sewer lines.

DULY PASSED BY THE CITY COUNCIL OF THE TOWN OF ADDISON, TEXAS, on this the 12th day of August, 2003.

Mayor

ATTEST:

City Secretary

#R15-1

Passed -03

Council Agenda Item: #R/

SUMMARY:

This item is for the award of contract to Insitu form Technologies, in the amount of \$104,320.00, for Trenchless Internal Lining of Sanitary Sewer Lines.

FINANCIAL IMPACT:

Budgeted Amount:

\$72,000.00

Construction Cost:

\$104,320.00

Source of Funds:

Funds are available from FY 2002-03 Water and Sewer Fund, as indicated in the Five Year Capital Replacement

Program.

BACKGROUND:

A portion of the existing wastewater system in the Town of Addison was constructed in the early 1960's. During this period, the piping material used in construction usually consisted of clay tile, and it was very susceptible to shifting soils and root intrusions. This condition ultimately led to increased stormwater inflow and infiltration, and higher wastewater treatment costs. As a result, an annual program of replacement of deteriorated sanitary sewer mains throughout the Town was adopted. The program provides for continued reduction in stormwater inflow and infiltration through an effort of preventive maintenance. Public Works Department staff prepared engineering specifications for installation of approximately 1,200 linear feet of trenchless internal lining within the vicinity of the Greenhaven Village and Addison on Brookhaven Apartments, and along Beltway Drive, from Midway Road to Belt Line Rd.

Attached is a bid tabulation for this project. The lowest responsive bid was submitted by Insituform Technologies, in the amount of \$104,320.00. This bid exceeds the original budgeted amount due to a determined need by Public Works staff to increase the original scope of work to meet the maintenance and repair needs in the project area. The contractor is nationally recognized as an industry leader in trenchless internal lining of wastewater systems, and has previously performed similar improvements in the Town of Addison.

RECOMMENDATION:

Staff recommends that Council authorize the City Manager to enter into a contract with Institutorin Technologies, in the amount of \$104,320.00, for Trenchless Internal Lining of Sanitary Sewer Lines.

Trenchless Internal Lining of Sanitary Sewer Lines

BID NO 03-22

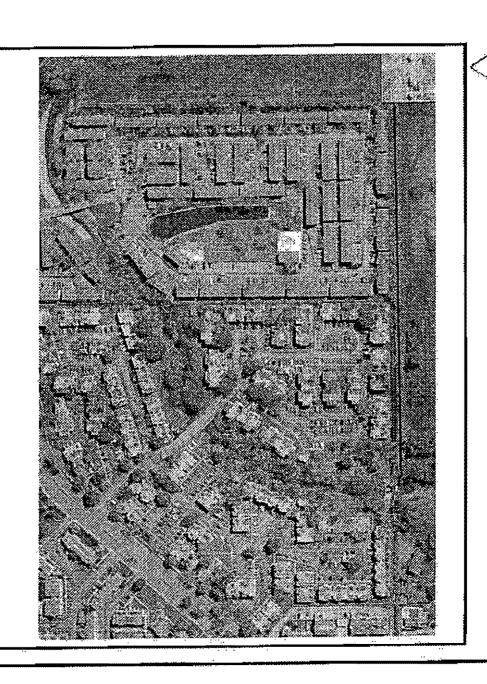
DUE: July 15, 2003

2:00 PM

BIDDER	SIGNED	BID BOND	Add-1	TOTAL
Insituform Technologies	y	у		\$104,320.00
BRH Garver	ÿ	. y	y.	\$155,045.00
Horseshoe Construction	y	ÿ	у.	\$212,400.00
· · · · · · · · · · · · · · · · · · ·	<u> </u>			

Minok Luk	
Minok Sun; Purchasing Coordinator	-
Cáraji Biydar	
Corey Gayden, Witness	_

Trenchless Internal Lining of Sanitary Sewer Lines



DATE SUBMITTED: August 5, 2003 FOR COUNCIL MEETING: August 12, 2003

Council Agenda Item:

SUMMARY:

This item is for the award of contract to Insituform Technologies, in the amount of \$104,320.00, for Trenchless Internal Lining of Sanitary Sewer Lines.

FINANCIAL IMPACT:

Budgeted Amount:

\$72,000.00

Construction Cost:

\$104,320.00

Source of Funds:

Funds are available from FY 2002-03 Water and Sewer Fund, as indicated in the Five Year Capital Replacement

Program.

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RECOMMENDATION:

Staff recommends that Council authorize the City Manager to enter into a contract with Insituform Technologies, in the amount of \$104,320.00, for Trenchless Internal Lining of Sanitary Sewer Lines.

Trenchless Internal Lining of Sanitary Sewer Lines

BID NO 03-22

DUE: July 15, 2003

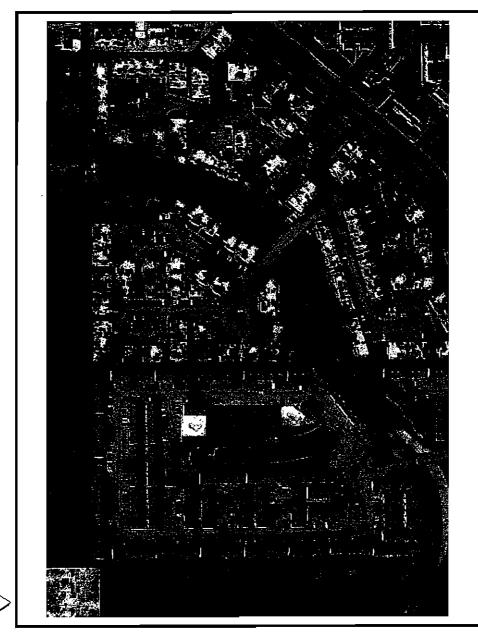
2:00 PM

BIDDER	SIGNED	BID BOND	Add-1	TOTAL
Insituform Technologies	<u> </u>	<u> </u>	у	\$104,320.00
BRH Garver	уу	у	У	\$155,045.00
Horseshoe Construction	У	У	У	\$212,400.00

Minok Suh	
 Minok Suh, Purchasing Coordinator	
Corey Dayden	
Corey Gayden, Witness	

ESRI ArcExplorer 2.0 -

Trenchless Internal Lining of Sanitary Sewer Lines





BID SPECIFICATION FOR TRENCHLESS INTERNAL LINING OF SANITARY SEWER LINES

The Town of Addison will accept proposals for the reconstruction of sanitary sewer lines by the installation of a trenchless internal lining process. The project located within the Greenhaven Village and Addison on Brookhaven Apartments (Approximately 1,200 l.f.) and along Beltway Drive, from Midway Road to Belt Line Rd. (Approximately 2,000 l.f.).

A. INTENT

It is the intent of this specification to provide for the reconstruction of approximately 3,200 linear feet of existing 8 inch clay tile wastewater main by the installation of a resin-impregnated flexible tube, which is installed into the original conduits by use of a hydrostatic head, and then cured by circulating hot water. The Cured-in Place Pipe (CIPP) will be continuous and tight fitting. The work shall be completed within (30) calendar days from the "Notice to Proceed"

B. PREQUALIFICATION

The process (materials, methods, workmanship) must be proven through previous successful installations in other sewer systems to an extent and satisfactory to the Owner. The contractor shall have a minimum of 3 years of related experience using the CIPP method and shall have installed no less than fifty thousand (50,000) linear feet.

C. REFERENCED DOCUMENTS

This specification references ASTM F1216 (Rehabilitation of pipeline by inversion and curing of reh-impregnated tube), and ASTM F1743 (Rehabilitation of pipelines by pulled-in-place installation of a cured-in-place thermosetting resin pipe), which are made a part hereof by such reference and shall be the latest edition and revision thereof. In case of conflicting requirements between this specification and these referenced documents, this specification will govern.

D. MATERIALS

The minimum length of the tube or liner shall be that deemed necessary by the contractor to produce a finished pipe tightly formed to the existing pipe and which effectively spans from the inlet to the outlet of the respective manholes. The contractor will submit for approval his required minimum wall thickness and his proposed design calculations showing the outside and inside diameter sizing for his CIPP. The wall color of the interior pipe surface of the CIPP, after installation, shall be light reflective color so that a clear detail examination with closed circuit television inspection equipment may be made.

(CIPP) cured-in-place-pipe

- (1) <u>TUBE</u> The tube materials and design consideration shall meet the requirements of ASTM, F-1216- SECTION 5.1, or current ASTM standards.
- (2) The tube shall have a uniform thickness that when compressed at installation pressures will equal the specified tube thickness.
- (3) 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 installation.
- (4) The wall color of the interior pipe surface of the CIPP after installation shall be white or light brown so that a clear detail examination with closed circuit television inspection equipment may be made.
- (5) Resin- The resin system shall meet the requirement of ASTM F1216.

E. STRUCTURAL REQUIREMENT

The CIPP shall be designed as per ASTM F1216, Appendix X.1. The CIPP design shall assume no bonding to the original pipe wall. The Manufacturer shall be responsible for all aspects of the design of the tube/liner and shall guarantee that the installed tube/liner is capable of sustaining outside loads, resisting chemical attack that normally occurs in sanitary sewers, and will maintain hydraulic characteristics over a fifty year design life. 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 tube/liner shall be designed to support hydraulic soil and live loads. The tube/liner shall be designed for the existing 8-inch sanitary sewer, and 8 ft. of groundwater over the pipe. The pipe depth is between 8 and 10 ft. The manufacturer shall make provisions so that the necessary wall thickness will be achieved after the pipe has been expanded to the existing pipe.

1. The CIPP shall conform to the minimum structural standards listed below:

Standard

Cured Pipe	U.S. Standards	Results
Flexural Stress	ASTM D-790	4,500 psi
Modulus of Elasticity	ASTM D-790	400,000 psi

2. The Polyethylene pipe shall conform to the minimum structural standards listed below:

PIPE MATERIAL TEST	U.S. STANDARD	RESULTS
Flexural Stress (Yield)	ASTM D-638	3,000 psi
Flexural Stress (Break)	ASTM D-638	4,500 psi
Flexural Stress of Elasticity	ASTM D-790	133,000 psi

If inspection reveals an obstruction that cannot be corrected by conventional sewer cleaning equipment, then the contractor shall make a point repair excavation to uncover and remove or

repair such obstruction and replace the existing pipe. Such excavation shall be approved in writing by the Town Of Addison representation prior to the commencement of the work, and shall be considered as a separate pay item.

The contractor shall remove any protruding taps, or obstructions to the inside wall of the pipe. In no case shall the pipe be less than 100 percent open to flow.

F. INSTALLATION

- F.1 CIPP installation shall be in accordance with ASTM F1216, Section7, or ASTM F1743, Section 6, with the following modifications:
- **F.1.1** Resin Impregnation The quality of resin used for tube impregnation shall be sufficient to fill the volume of air voids in the tube with additional allowances for polymerization shrinkage and the loss of resin through cracks and irregularities in the original pipe wall. A vacuum impregnation process shall be used. To insure thorough resin saturation throughout the length of the felt tube, the point of vacuum shall be no further than 25 feet from the point of initial resin introduction.

After a vacuum in the tube is established, a vacuum point shall be no further than 75 feet from the leading edge of the resin. The leading edge of the resin slug shall be as near to the perpendicular as possible. A roller system shall be used to uniformly distribute the resin throughout the tube. If the Installer uses an alternate resin impregnation, the method must produce the same results. Any alternate resin impregnation method must be proven.

- F.1.2 Tube insertion The wet tube shall be poisoned in the pipeline using either inversion or a pull-in-method. If the pulled into place, a power winch should be utilized and care should be taken not to damage the tube as a result of the pull-in friction. The tube should be pulled-in or inverted through an existing manhole or approved access point and fully extend to the next designated manhole or termination point.
- **F.1.3** Temperature gauges shall be placed inside the tube at the invert level of each end to monitor the temperatures during the cure cycle.
- **F.1.4** Curing shall be accomplished by utilizing hot water under hydrostatic pressure in accordance with the manufacturer's recommended cure schedule.

G. REINSTATEMENT OF BRANCH CONNECTIONS

The present line may have some inactive "Y"s. Active services must be identified by the contractor prior to installing the liners. After the pipe has been relined and tested only existing inactive services connections as shown on the plans or additional services as directed by the

Town shall be disconnected. The reconection of the service shall be done without excavation, unless otherwise specified by The Town; this will be accomplished from the interior of the pipeline by a television camera directed cutting devise. All recut service connections 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 pre-construction TV tape and other proven detection methods. Service lines will be reconnected with 100 % of their original capacity. The contractor will provide for temporary pumping for the lateral service line when necessary.

The contractor shall certify that he has a minimum of two (2) complete working units plus spare key components on the job site before each relining. No additional payment will be made for excavations for the purpose of reopening connections and the contractor will be responsible for all cost and liability associated with such excavation and restoration work.

H. INSPECTION & TESTING

The contractor shall perform a television inspection of the completed project. The Town Of Addison shall have a representative present at the time of this inspection. After completion of this project the contractor shall produce a color videotape of the entire line. The contractor shall maintain bypassing operations during this inspection so that the entire inside circumference of the pipe can be viewed.

Prior to expiration of two years from the date of completion, the Town of Addison will make a visual inspection of the project to determine whether corrective work is required. The contractor shall attend such inspection if requested by The Town Of Addison.

Any defect that will affect the flow capacity or structural integrity of the reconstructed pipe shall be repaired or the liner replaced at the contractor's expense. All testing shall be in accordance with standard Town of Addison specifications & shall be subsidiary to the total cost of the project.

I. INSTALLATION RESPONSIBILITIES FOR INCIDENTAL ITEMS

- (1) <u>Traffic Control</u> Traffic Control shall be the responsibility of the contractor and shall conform to the minimum standards in the Texas MUTCD handbook. The contractor shall maintain traffic during working periods. During non-working periods, the contractor shall open the roadway to traffic.
- (2) Access It will be responsibility of the Town Of Addison to locate and designate all manholes 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.
- (3) Water usage Water is available at City hydrants for cleaning, installation, and other work items requiring water. The system is owned by the Town and the contractor shall obtain a temporary meter from the Town, including a \$900 refundable deposit, and compensate the Town for the amount of water used, at the current commercial rate established per 1000 gallons of usage.

- (4) <u>Flow Control Precautions</u> Precautions must be taken to insure that sewer flow control operations doesn't cause flooding or damage to the public or private property being served by the sewer involved to include <u>bypass</u> pumping necessary to maintain mainline flows. The contractor shall be liable for private property damages caused by sewer blockages resulting from Contractor's activities or lack of action to prevent such blockage. The contractor shall be liable for punitive damages should the Town be fined by a regulatory agency because of the contractor's failure to control sewage flow.
- (5) The Town has copies of a video inspection of the sewers to be relined that is available for viewing for prospective bidders. However, since the deterioration of sewer is an ongoing process and root, solids and deposits can accumulate over time, the contractor shall base the design of the liner on inspections made immediately prior to installation.
- (6) The contractor along with the Towns' representative shall contact the owner/business within the project limits to inform them of project, and provide them with any information deemed necessary for the successful performance of the contract, and to inform them of temporary sewer service disconnection. With this type of sewer line rehabilitation, an interruption of the normal flow of sewage from businesses is expected. The contractor shall be responsible for any special needs of users such as portable toilet facilities.
- (7) 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/repairs shall be completed at no additional cost to The Town.

J. CLEAN UP

After the installation work has been completed and all inspected and testing is acceptable, the contractor shall clean up the entire project area and return the ground cover to grade. The contractor shall dispose of all excess material and debris not incorporated into the permanent installation.

The contractor at his expense shall dispose of waste material, which is deemed not reusable by the Town's project representative.

All areas disturbed by the contractors' activities shall be restored to their original condition. The restoration shall include seeding or hydro mulching, as directed by the Town of Addison and replacement of damaged trees, shrubs, etc. The contractor shall water landscaped areas disturbed, until the restoration is well established. All work under this item is considered subsidiary to the total cost of the project.

K. Warranty

The contractor and the manufacturer shall warranty all materials and workmanship for a period of 2 (Two) years. The warranty shall cover, but will not be limited to the following.

(a) Defects discovered in material used in the project.

- (b) Failure of liner to remain formed to the previously existing sewer line.
- (c) Lateral connections that are restricted due to shrinkage in the liner.

L. Payment

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

M. Bid Bond

The Contractor shall furnish a bid bond of not less than 5% of the amount of the bid.

N. Insurance

The successful contractor shall furnish Workers Compensation, Commercial General Liability, Comprehensive Automobile and Truck Liability, and Owners Protective Liability Insurance in accordance with North Central Texas Council of Governments Standard Specifications for Public Works Construction, Third Edition, Paragraphs 1.26.1, 1.26.2, and 1.26.5.

O. Pre-Bid Meeting

A <u>Mandatory</u> Pre-Bid meeting will be held at **2:00 p.m. on June** ______, **2003** at the Addison Service Center, 16801 Westgrove, Addison, Texas, 75001, (972) 450-2871. <u>All bidders are required to attend</u>. Lack of attendance will be considered non-responsive and a bid will not be accepted from anyone not attending.

P. BIDDING

The Town of Addison will expect at least 75% of the work to be performed by the Bidding Contractor. Extensive brokering or subletting is not permitted. All bidders must submit, with their bid, satisfactory documentation of the contractors minimum requirements of 3 years related experience using the CIPP and no less than fifty thousand (50,000) linear feet installed.

TRANSMITTAL OF ADDENDUM			
INSTRUCTIONS:			
Acknowledge receipt of Addenda with the form below, please FAX to (972) 450-7096 receipt.	upon		
***************************************	*****		
Addendum Acknowledgment Should be faxed to (972) 450-7096			
I Acknowledge the receipt of Addendum No.: 1 Total # Pages: 2			
Town of: ADDISON, TEXAS			
Project Name: 03-22 Trenchless Internal Lining of Sanitary Sewer Lines			
By Facsimile Transmission on this date: July 14, 2003			
The undersigned bidder hereby certifies that Addendum No. 1 has been incorporated into the proif accepted becomes part of the contract.	posal and		
Company Name:			
Signed By:			
Signature:			
Date:			

PLEASE SIGN & FAX THIS PAGE BACK TO TOWN OF ADDISON

(As verification that you received this update) 972-450-7096

Addendum 1 Bid 03-22 Trenchless Internal Lining of Sanitary Sewer Lines Due: July 15, 2003 at 2:00 PM

Bid Opening time has NOT changed.

The following item can be deleted from specification, since it does not pertain to the bid:

Section E. Structural Requirement

2. The Polyethylene pipe shall conform to the minimum structural standards listed below:

PIPE MATERIAL TEST	U.S. STANDARD	RESULTS
Flexural Stress (Yield)	ASTM D-638	3,000 psi
Flexural Stress (Break)	ASTM D-638	4,500 psi
Flexural Stress of Elasticity	ASTM D-790	133,000 psi

END OF ADDENDUM 1

ADVERTISEMENT FOR BIDS Bid # 03-22

The Town of Addison is requesting bids for Trenchless Internal Lining of Sanitary Sewer Lines, Bid No. 03-22. Mandatory Pre bid meeting, July 8, 2003 at 9:00 am, Service Center, 16801 Westgrove. Bids will be accepted until 2:00pm, July 15, 2003 at in the office of the Purchasing Coordinator, 5350 Belt Line Rd., Addison, Texas 75254 at which time they will be publicly opened and read aloud. Late bids will not be considered and will be returned unopened.

The Town of Addison reserves the right to waive any formalities and to reject any or all bids and to select the bid deemed most advantageous to the City. Specifications and bid information are available on www.demandstar.com...

Steve Chutchian

From: Minok Suh

Sent: Tuesday, May 27, 2003 4:57 PM

To: Luke Jalbert

Cc: Steve Chutchian; Jerry Davis; Jim Pierce

Subject: 03-22 Trenchless Internal Lining of Sanitary Sewer Lines

Bid No - 03-22

Bid Name - Trenchless Internal Lining of Sanitary Sewer Lines

First Ad June 27
Second Ad July 4
Mandatory Pre Bid Meeting - July 8, 2003 at 9am, Service Center
Bid Opening - July 15, 2003 at 2:00pm, Finance.
Council ? - August 12

Est Budget \$150,000.00

Many May Jan 12 K.

LOEMPONTET DEFINED!

BID SPECIFICATION FOR TRENCHLESS INTERNAL LINING OF SANITARY SEWER LINES

Stere Sin-

The Town of Addison will accept proposals for the reconstruction of sanitary sewer lines by the installation of a trench less internal lining process.

A. INTENT

It is the intent of this specification to provide for the reconstruction of 3,200 **ft**. of 8 inch. clay tile wastewater main by the installation of a resin-impregnated flexible tube, which is installed into the original conduits by use of a hydrostatic head, and then cured by circulating hot water. The Cured-in Place (CIPP) will be continuous and tight fitting. The work shall be completed within (30) calendar days from the "Notice to Proceed"

B. PREQUALIFICATION

The process (materials, methods, workmanship) must be proven through previous successful installations in other sewer systems to an extent and satisfactory to the Owner. The contractor shall have a minimum to 3 years experience using the CIP, and shall have installed no less than fifty thousand (50,000) feet.

LINEAR

- Pipe

PROCEDURE

C. REFERENCED DOCUMENTS

This specification references ASTM F1216 (Rehabilitation of pipeline by inversion and curing of rein-impregnated tube). ASTM F1743 (Rehabilitation of pipelines by pulled-in-place installation of a cured-in-place thermosetting resin pipe), which are made a part hereof by such reference and shall be the latest edition and revision thereof. In case of conflicting requirements between this specification and these referenced documents, this specification will govern.

D. MATERIALS

The minimum length of the tube or liner shall be that deemed necessary by the confractor to produce a finished pipe tightly formed to the existing pipe and which effectively spans the inlet to the outlet of the respective manholes. The contractor will submit for approval his required minimum wall thickness and his proposed design calculations showing the outside and inside diameter sizing for his CIPP. The wall color of the interior pipe surface of the CIPP after installation shall be light reflective color so that a clear detail examination with closed circuit television inspection equipment may be made.

Page 1.

set up pre- sup a.

(CIPP) cured-in-place-pipe

- (1) <u>TUBE</u> The tube materials and design consideration shall meet the requirements of ASTM, F-1216-SECTION 5.1, or current ASTM standards.
- (2) The tube shall have a uniform thickness that when compressed at installation pressures will equal the specified tube thickness.
- (3) 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 installation.
- (4) The wall color of the interior pipe surface of the CIPP after installation shall be white or light brown so that a clear detail examination with closed circuit television inspection equipment may be made.
- (5) Resin- The resin system shall meet the requirement of ASTM F1216.

E. STRUCTURAL REQUIREMENT

The CIPP shall be designed as per ASTM F1216, Appendix X.1. The CIPP design shall assume no bonding to the original pipe wall. The Manufacturer shall be responsible for all aspects of the design of the tube/liner and shall guarantee that the installed tube/liner is capable of sustaining outside loads, resist chemical attack that normally occurs in sanitary sewers, and will maintain hydraulic characteristics over a fifty year design life. 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 tube/liner shall be designed to support hydraulic soil and live loads. The tube/liner shall be designed for the existing 8-inch sanitary sewer, and 8 ft. of groundwater over the pipe. The pipe depth is between 8 and 10 ft. The manufacturer shall make provisions so that the necessary wall thickness will be achieved after the pipe has been expanded to the existing pipe.

1. The CIPP shall conform to the minimum structural standards listed below:

Standard

Cured Pipe	<u>U.S. Standards</u>	Results
Flexural Stress	ASTM D-790	4,500 psi
Modulus of Elasticity	ASTM D-790	400,000 psi

2. The Polyethylene pipe shall conform to the minimum structural standards listed below:

PIPE MATERIAL TEST	U.S. STANDARD	RESULTS
Flexural Stress (Yield)	ASTM D-638	3,000 psi
Flexural Stress (Break)	ASTM D-638	4,500 psi
Flexural Stress of Elasticity	ASTM D-790	133,000 psi

& REPLACE EXET

ANY

Total Reports summe

If inspection reveals an obstruction that cannot be corrected by conventional sewer cleaning equipment, then the contractor shall make a point repair excavation to uncover and remove or repair such obstruction. Such excavation shall be approved in writing by the Town Of Addison representation prior to the commencement of the work, and shall be considered as a separate pay item.

The contractor shall remove the protruding tap, or obstruction to the inside wall of the pipe. In no case shall the pipe be less than 100 percent open to flow.

F. INSTALLATION

F.1 CIPP installation shall be in accordance with ASTM F1216, Section7, or ASTM F1743, Section 6, with the following modifications:

F.1.1 Resin Impregnation – The quality of resin used for tube impregnation shall be sufficient to fill the volume of air voids in the tube with additional allowances for polymerization shrinkage and the loss of resin through cracks and irregularities in the original pipe wall. A vacuum impregnation process shall be used. To insure thorough resin saturation throughout the length of the felt tube, the point of vacuum shall be no further than 25 feet from the point of initial resin introduction.

After vacuum in the tube is established, a vacuum point shall be no further than 75 feet from the leading edge of the resin. The leading edge of the resin slug shall be as near to the perpendicular as possible. A roller system shall be used to uniformly distribute the resin throughout the tube. If the Installer uses an alternate resin impregnation, the method must produce the same results. Any alternate resin impregnation method must be proven.

- **F.1.2** Tube insertion The wet tube shall be poisoned in the pipeline using either inversion or a pull-in-method. If the pulled into place, a power winch should be utilized and care should be taken exercised not to damage the tube as a result of the pull-in friction. The tube should be pulled-in or inverted through an existing manhole or approved access point and fully extend to the next designated manhole or termination point.
- **F.1.3** Temperature gauges shall be placed inside the tube at the invert level of each end to monitor the temperatures during the cure cycle.
- **F.1.4** Curing shall be accomplished by utilizing hot water under hydrostatic pressure in accordance with the manufacturer's recommended cure schedule.

G. REINSTATEMENT OF BRANCH CONNECTIONS

The present line may have some inactive "Y"s. Active services must be identified by the contractor prior to installing the liners. After the pipe has been relined and tested only existing inactive services connections as shown on the plans or additional services as directed by the

Town shall be disconnected. The reconection of the service shall be done without excavation, unless otherwise specified by The Town; this will be accomplished from the interior of the pipeline by a television camera directed cutting devise. All recut service connections 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 pre-construction TV tape and other proven detection methods. Service lines will be reconnected with 100 % of their original capacity. The contractor will provide for temporary pumping for the lateral service line when necessary.

The contractor shall certify that he has a minimum of two (2) complete working units plus spare key components on the job site before each relining. No additional payment will be made for excavations for the purpose of reopening connections and the contractor will be responsible for all cost and liability associated with such excavation and restoration work.

H. INSPECTION & TESTING

The contractor shall perform a television inspection of the completed project. The Town Of Addison shall have a representative present at the time of this inspection. After completion of this project the contractor shall produce a color videotape of the entire line. The contractor shall maintain bypassing operations during this inspection so that the entire inside circumference of the pipe can be viewed.

Prior to expiration of two years from the date of completion, the Town of Addison will make a visual inspection of the project to determine whether corrective work is required. The contractor shall attend such inspection if requested by The Town Of Addison.

Any defect that will affect the flow capacity or structural integrity of the reconstructed pipe shall be repaired or the liner replaced at the contractor's expense.

ALL TETMS SHALL BE IN ACCORDANCE WITH TOWN OF ADDISON STANDA I. INSTALLATION RESPONSIBILITIES FOR INCIDENTAL ITEMS SUBSCORDED TO ME

- (1) Traffic Control Traffic Control shall be the responsibility of the contractor and shall conform to the minimum standards in the Texas MUTCD handbook. The contractor shall maintain traffic during working periods. During non-working periods, the contractor shall open the roadway to traffic.
- (2) Access It will be responsibility of the Town Of Addison to locate and designate all manholes 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.

from the Town, including A \$ 900 reposit,

(3) Water usage - Water is available at City hydrants for cleaning, installation, and other work items requiring water. The system is owned by the Town and the contractor shall obtain a temporary meter and compensate the Town for the amount of water used.

(4) Flow Control Precautions - Precautions must be taken to insure that sewer flow control of usage. operations doesn't cause flooding or damage to the public or private property being served by the sewer involved to include **bypass** pumping necessary to maintain mainline flows. The contractor shall be liable for private property damages caused by sewer blockages resulting from Contractor's activities or lack of action to prevent such blockage. The contractor shall be liable for punitive damages should the Town be fined by a regulatory agency because of the

contractor's failure to control sewage flow.

(5) The Town has copies of a video inspection of the sewers to be relined that is available for viewing for prospective bidders. However, since the deterioration of sewer is an ongoing process and root, solids and deposits can accumulate over time, the contractor shall base the design of the liner on inspections made immediately prior to installation.

- (6) The contractor along with the Towns' representative shall contact the owner/business within the project limits to inform them of project, and provide them with any information deemed necessary for the successful performance of the contract, and to inform them of temporary sewer service disconnection. With this type of sewer line rehabilitation, an interruption of the normal flow of sewage from businesses is expected. The contractor shall be responsible for any special needs of users such as portable toilet facilities.
- (7) 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/ repairs shall be completed at no additional cost to The Town.

J. CLEAN UP

After the installation work has been completed and all inspected and testing is acceptable, the contractor shall clean up the entire project area and return the ground cover to grade. The contractor shall dispose of all excess material and debris not incorporated into the permanent installation.

The contractor at his expense shall dispose of waste material, which is deemed not reusable by the Town's project representative.

All areas disturbed by the contractors' activities shall be restored to their original condition. The contractor shall water landscaped areas disturbed, until the restoration is well established.

ALL WORK UNDER THIS ITEM IS CONSIDERED SUBSIDINET TO TOTAL COST OF PROTECT.

THE PRESTREATION SHALL
INCLUDE SERDING OR HTDRONG
AS DIRECTED BY THE TOWN &
OF ADDISON & PEPLACENET
OF DAMA GED TREES IS HELDS,

K. Warranty

The contractor and the manufacturer shall warranty all materials and workmanship for a period of 2 (Two) years. The warranty shall cover, but will not be limited to the following.

- (a) Defects discovered in material used in the project.
- (b) Failure of liner to remain formed to the previously existing sewer line.
- (c) Lateral connections that are restricted due to shrinkage in the liner.

NA D. K. Payment

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

" CONDUCTOR SURVEY

L. Bid Bond

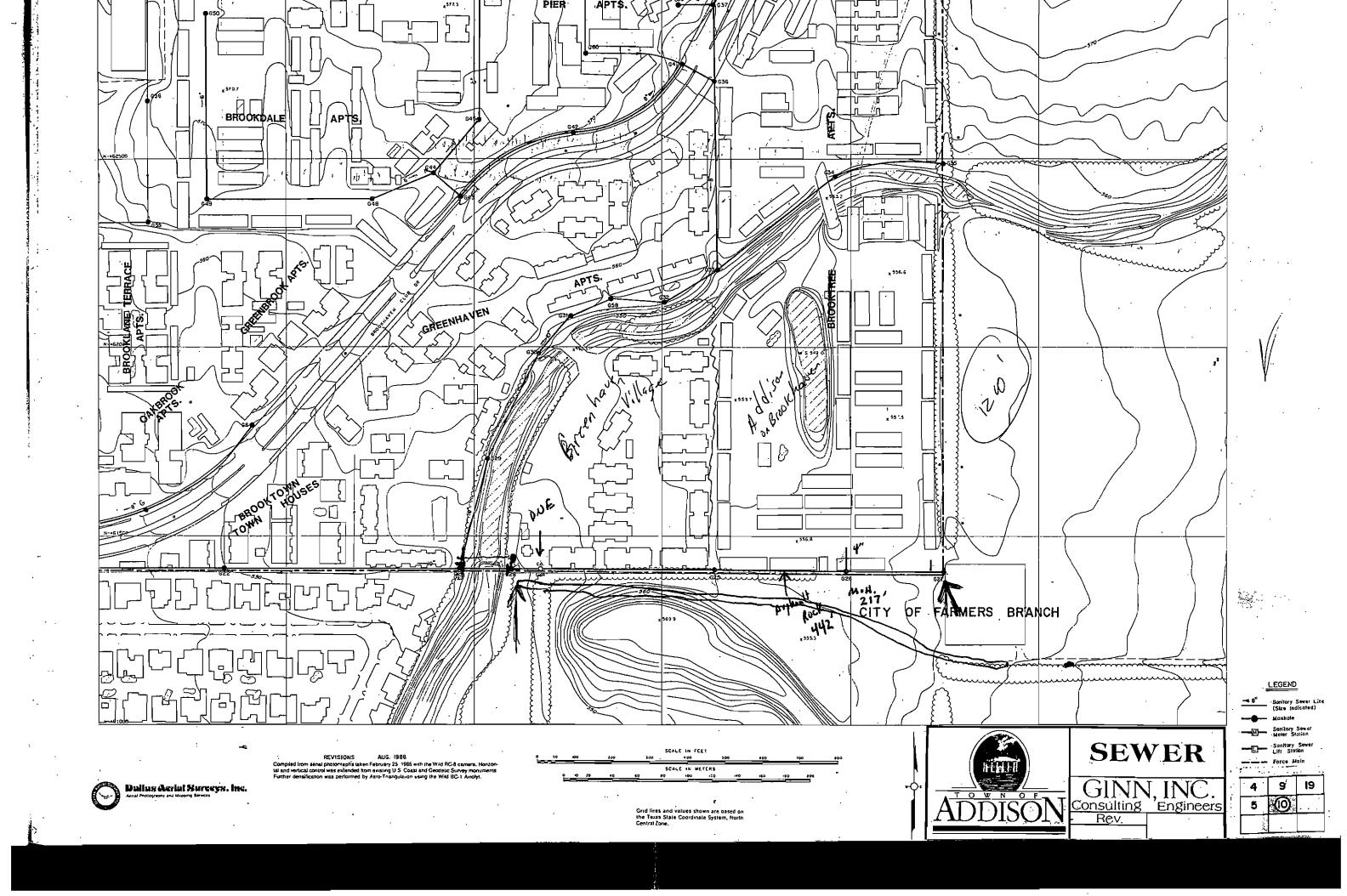
Contractor shall furnish bid bond of not less than 5% of amount of bid.

The successful contractor shall furnish a performance hand for 100% of amount hid and shall include a one year warranty on the work

M. Insurance

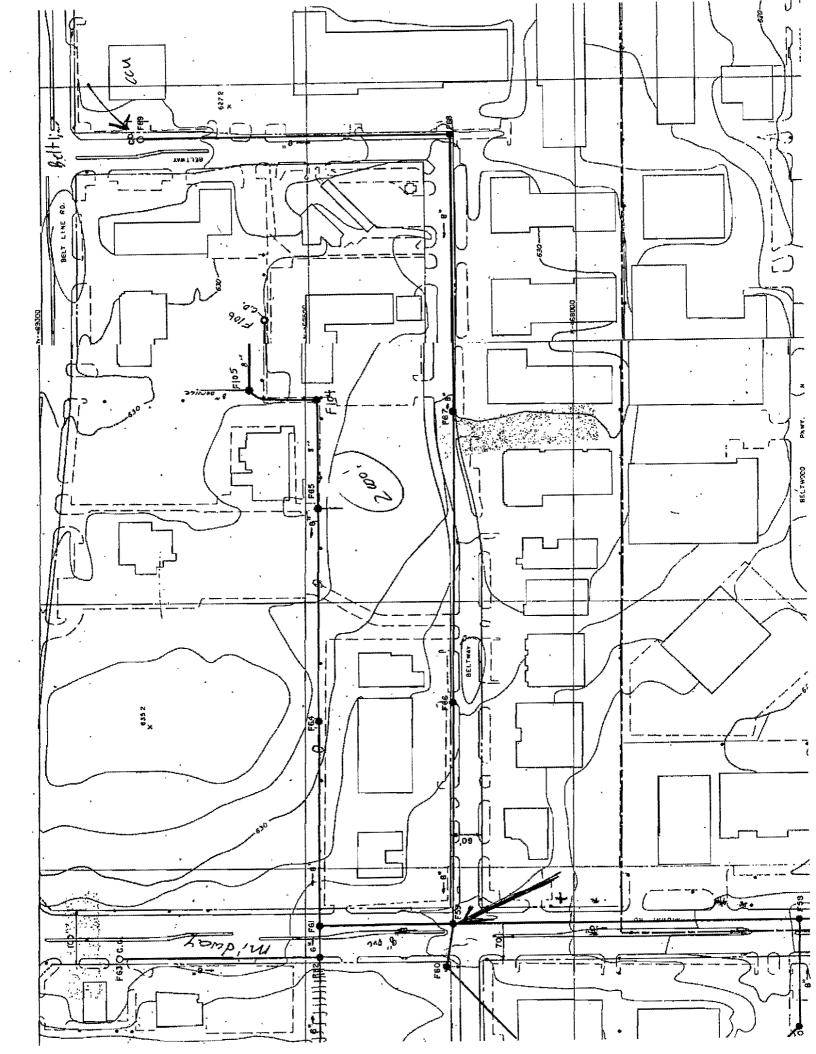
The successful contractor shall furnish Workers Compensation, Commercial General Liability, Comprehensive Automobile and Truck Liability, and Owners Protective Liability Insurance in accordance with North Central Texas Council of Governments Standard Specifications for Public Works Construction, Third Edition, Paragraphs 1.26.1, 1.26.2., and 1.26.5.

CONTRACTOR SHALL FURNISH A ONE (1) FEDE MAINTENANCE BOND



Brook howen TVing

Narrative description to the (Location)



LICLUSE MEDIN WORK ON MIDWAY Spec.

ADDENDUM No. 1

TRENCHLESS INTERNAL LINING OF SANITARY SEWER LINES

BID No. 01-41

Bid opening: September 11, 2001, 2:00PM

NOTICE: Bidders are hereby notified of the following additions, deletions, and/or changes to the plans, specifications, and bid documents.

1) RE: Town of Addison Instructions to Bidders

Section 6.0 BIDDING

Please add the following:

"6.2 The Town of Addison will expect at least 75% of the work to be done by the Bidding Contractor. Extensive brokering or subletting is not permitted."

2) RE: Bid Specification for Trenchless Internal Lining of Sanitary Sewer Lines

Section B. PREQUALIFICATION

Please add the following:

"In addition to the qualification submittals required with the bid as referenced in Section 7.2, Award of Contract, all bidders must also submit, with their bid, satisfactory documentation of the contractors minimum requirements of 3 years experience using the CIPP and no less than fifty thousand (50,000) feet installed."

3) RE: BID FORM

Please replace the section below the dotted line with the attached revised Bid Form, and submit both documents with your bid. The portion above the dotted line of the original Bid Form must be completed.

END OF ADDENDUM

The undersigned bidder hereby certifies	the Addendum N	o. I has been	incorporated into
the contract and if accepted becomes par	t of the contract.		

]	BY:	DATE:	

-> pre - 510 mgh.