

**BARRACKVILLE SANITARY SEWER BOARD  
MARION COUNTY, WEST VIRGINIA**

**PHASE IV – SANITARY SEWER UPGRADES AND MANHOLE REHABILITATION  
PROJECT**

**ADDENDUM #1**

**JUNE 5, 2024**

**THRASHER PROJECT #020-10026**

TO WHOM IT MAY CONCERN:

A Pre-Bid Conference was held on Wednesday, May 22, 2024, for the above-referenced project. A copy of the sign in sheet is included in this Addendum. The following are clarifications and responses to questions posed by contractors for the above-referenced project.

**A. GENERAL**

- 1. THE BID FORM HAS BEEN REVISED. YOU MUST USE THE REVISED BID FORM WHEN PREPARING YOUR BID PACKAGE FOR THIS PROJECT.**
- EJCDC C-800 Supplementary Conditions of the Construction Contract has been revised as follows:

Delete Paragraph SC-7.07.A in its entirety and insert the following new paragraph in its place:

The total amount of work subcontracted by the Contractor may exceed fifty percent of the Contract price.

**B. SPECIFICATIONS**

- Specification Section 099651 – Non-Structural Spray-On Multi-Component Liner System Manhole Rehabilitation has been revised and is included as part of this Addendum.

**C. QUESTIONS AND RESPONSES**

**1. QUESTION**

This is not Davis Bacon is that correct?

**RESPONSE**

Correct. Davis Bacon Wages do not apply to this project.

**2. QUESTION**

Is there any Horizontal Directional Drilling required for the project?

**RESPONSE**

There is no Horizontal Directional Drilling in this project.

**3. QUESTION**

Is there a 90-day bid hold? Or when are you expected to award the project?

**RESPONSE**

The bid hold is 90 days. However, the expectation is to award the project 45-60 days after bid opening.

**4. QUESTION**

Is the intent to start construction immediately after you award the project?

**RESPONSE**

Construction may begin immediately following award. Our intent is to award the project as soon as possible. There is a bid hold of 90 days. However, the expectation is to award the project 45-60 days after bid opening.

**5. QUESTION**

Is Thrasher going to have an inspector on site daily?

**RESPONSE**

Yes.

**6. QUESTION**

Do you guys require an office?

**RESPONSE**

Yes, we require an office on site or near the site location. The office can be a local building or a trailer on site.

**7. QUESTION**

Is there a set laydown yard or something that you have picked out?

**RESPONSE**

No, there is no set laydown yard currently picked out. There is property that the Town of Barrackville has permission to use but would need to clarify with the Owner before use.

**8. QUESTION**

Does American Iron and Steel (AIS) apply to this project?

**RESPONSE**

No.

**9. QUESTION**

The manhole table lists 243 manholes. The Bid Forms lists 203 manholes of Repair Types A, B, C, & D. Which is correct?

**RESPONSE**

There are 243 manholes. **THE BID FORM HAS BEEN REVISED. YOU MUST USE THE REVISED BID FORM WHEN PREPARING YOUR BID PACKAGE FOR THIS PROJECT.**

**10. QUESTION**

The manhole spec does not give detail on the repair types.

**RESPONSE**

The repair types are defined/shown on Plan Sheet No. D5.

**11. QUESTION**

What is the pressure rating required for the C900 PVC gravity sewer line?

**RESPONSE**

The minimum pressure rating required for the C900 PVC gravity sewer line is 165 psi (DR 25).

**12. QUESTION**

Does Build America Buy America (BABA) apply to this project?

**RESPONSE**

No.

**D. CLARIFICATIONS**

1. The Engineer's estimate for this project is \$1,700,000.

If you have any questions or comments, please feel free to contact me at your earliest convenience. As a reminder, bids will be received until 2:00 p.m. on Wednesday, June 12, 2024, at Barrackville Town Hall, 716 Pike Street, Barrackville, WV 26559. Good luck to everyone and thank you for your interest in the project.

Sincerely,

THE THRASHER GROUP, INC.



DANIEL E. FERRELL, P.E.  
Project Manager



Enclosures: Pre-Bid Sign-In Sheet  
C-410 Bid Form  
Specification Section 099651 - Non-Structural Spray-On Multi-Component Liner System Manhole Rehabilitation

**BARRACKVILLE SANITARY SEWER BOARD  
MARION COUNTY, WEST VIRGINIA  
PHASE IV – SANITARY SEWER UPGRADES AND MANHOLE REHABILITATION  
PROJECT**

**PRE-BID CONFERENCE  
Wednesday, May 22, 2024**

**Thrasher Project #020-10026**

Name	Representing	Phone #	Email Address
Kent Krolkins	Region VI PDC <sup>Labor</sup>	304-366-5693 x102	krolkins@regionvi.com
Seth DeVault	Region VI PDC <sup>Admin</sup>	304-366-5693 x107	sdevault@regionvi.com
Paul Rohrbaugh	Advanced Rehab	304-815-2114	PJ@artcoatingtech.com
Logan Alastanzas	Pro Contracting, Inc	304-207-6780	lcalastanzas@procontractingwv.com
Calvin Wears	Bear Contracting	304-326-0160	estimating@bear-contracting.com
Jason Carte	Virco Contracting	304-741-4659	JASON@VIRCOCOMPANY.COM
Dominick Parrotta	Parrotta Paving	304-216-5023	dcomp@parrottpaving.com
Phil Mollenax	Black Star Trading company	304-642-8241	Pmollenax@blackstar-nc.com
<del>Phil</del> Andrew Fulbee	Blue gold development	304-376-3137	Info@Bluegolddevelopmentllc.com

Name	Representing	Phone #	Email Address
Brian Huffman	Doss Enterprises LLC	(304) 672-2880	brian.huffman@dossenterprises.com
Jeremy Winans	Hoffman Excavating	860-324-4101	Jeremy.Winans04@gmail.com
Tracy Curtis	Green River Group, LLC	304-203-4623	tracyscurtis@yahoo.com
DENNIS COOK	Cook Bros INC.	304-287-7109	cookbroinc@aol.com
Jon Sloan	IUPAT DC 53	304 476 6633	jsloana@IUPATDC53.org

# BID FORM FOR CONSTRUCTION CONTRACT

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

## ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to:

*Barrackville Sanitary Sewer Board  
716 Pike Street  
Barrackville, WV 26559*

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

## ARTICLE 2—ATTACHMENTS TO THIS BID

2.01 The following documents are submitted with and made a condition of this Bid:

A. Bid Opening Requirements

## ARTICLE 3—BASIS OF BID—LUMP SUM BID AND UNIT PRICES

### GENERAL

The Bidder shall take notice of and shall be responsible for any local or state taxes levied and applicable, and the cost for the same shall be included as part of the submitted Bid.

The total Bid cost stated includes a complete operating installation including furnishing and installation of any and all changes or additions in plans, piping, mechanical work, additional electrical work, accessories, controls, etc. necessary to accommodate alternative equipment systems or materials used in construction.

### BID PROPOSAL

The Bidder agrees to perform all required Work described in the detailed Specifications and as shown on the Plans for the complete construction and placing in satisfactory operation the Phase IV – Sanitary Sewer Upgrades and Manhole Rehabilitation Project. The Project "Sequence of Construction" has been detailed in the Drawings and Specification Section 011000 – Project Summary. The Bidder agrees to perform all the Work proposed for the total of the following Bid prices.

3.01 *Lump Sum Bids*

A. Bidder will complete the Work in accordance with the Contract Documents for the lump sum (stipulated) price(s), together with any Unit Prices indicated in Paragraph 3.02 and shown in the bid schedule.

B. Lump Sum Bids may be one of the following:

1. Lump Sum Price (Single Lump Sum)
  2. Lump Sum Price (Base Bid and Alternates)
  3. Lump Sum Price (Sectional Lump Sum Bids)
- C. All specified cash allowance(s) are included in the price(s) set forth in the bid schedule, and have been computed in accordance with Paragraph 13.02 of the General Conditions.
- D. All specified contingency allowances are included in the price(s) set forth in the bid schedule, and have been computed in accordance with Paragraph 13.02 of the General Conditions.

3.02 *Unit Price Bids*

- A. Bidder will perform the following Work at the indicated unit prices as shown in the Bid Schedule.
- B. Bidder acknowledges that:
1. each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and
  2. estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents.

3.03 *Total Bid Price (Lump Sum and Unit Prices)*

**PROPOSED  
PHASE IV – SANITARY SEWER UPGRADES AND MANHOLE REHABILITATION  
PROJECT  
FOR THE**

**BARRACKVILLE SANITARY SEWER BOARD  
MARION COUNTY, WEST VIRGINIA  
THRASHER PROJECT #020-10026**

**BID SCHEDULE**

***NOTE: Bid Unit Price amounts are to be shown in both words and figures. In case of discrepancy, the Bid Unit Price shown in words will govern. Bids shall include applicable taxes and fees.***

Bid Item	Quantity	Description with Unit Price Written In Words	Unit Price (In Figures)	Total Price (In Figures)
1	1	LS Mobilization/Demobilization	Dollars _____	
		Cents _____	\$ _____	\$ _____
2	1	LS Video Taping of Project Area	Dollars _____	
		Cents _____	\$ _____	\$ _____



Bid Item	Quantity		Description with Unit Price Written In Words	Unit Price (In Figures)	Total Price (In Figures)
3	1	LS	Erosion and Sedimentation Controls		
				Dollars _____	
				Cents _____	\$ _____
4	1	LS	By-Pass Pumping		
				Dollars _____	
				Cents _____	\$ _____
5	320	LF	4" PVC SDR 35 Service Lateral Piping		
				Dollars _____	
				Cents _____	\$ _____
6	120	LF	Install New 6" PVC SDR 35 Gravity Sewer Line (0'-6' Deep)		
				Dollars _____	
				Cents _____	\$ _____
7	395	LF	Install New 6" PVC SDR 35 Gravity Sewer Line (6'-9' Deep)		
				Dollars _____	
				Cents _____	\$ _____
8	350	LF	Install New 6" PVC C-900 Gravity Sewer Line (0'-6' Deep)		
				Dollars _____	
				Cents _____	\$ _____
9	480	LF	Install New 8" PVC SDR 35 Gravity Sewer Line (0'-6' Deep)		
				Dollars _____	
				Cents _____	\$ _____
10	270	LF	Install New 8" PVC SDR 35 Gravity Sewer Line (6'-9' Deep)		
				Dollars _____	
				Cents _____	\$ _____
11	120	LF	Install New 8" PVC C-900 Gravity Sewer Line (6'-9' Deep)		
				Dollars _____	
				Cents _____	\$ _____

Bid Item	Quantity		Description with Unit Price Written In Words	Unit Price (In Figures)	Total Price (In Figures)
12	385	LF	18" HDPE Storm Line		
				Dollars _____	
				Cents \$ _____	\$ _____
13	145	LF	30" HDPE Storm Line		
				Dollars _____	
				Cents \$ _____	\$ _____
14	1	EA	Concrete Storm Outlet Wing Wall		
				Dollars _____	
				Cents \$ _____	\$ _____
15	11	EA	Install New 48" Diameter Manhole w/ WT F & C		
				Dollars _____	
				Cents \$ _____	\$ _____
16	3	EA	Remove & Replace 48" Diameter Manhole		
				Dollars _____	
				Cents \$ _____	\$ _____
17	1	EA	Remove Cleanout and Replace w/ 48" Diameter Manhole		
				Dollars _____	
				Cents \$ _____	\$ _____
18	20	VF	48" Diameter Concrete Manhole Riser Pipe		
				Dollars _____	
				Cents \$ _____	\$ _____
19	5	EA	Storm Sewer Drop Inlet		
				Dollars _____	
				Cents \$ _____	\$ _____
20	1	EA	In-Line PVC Storm Drop Inlet		
				Dollars _____	
				Cents \$ _____	\$ _____

Bid Item	Quantity		Description with Unit Price Written In Words	Unit Price (In Figures)	Total Price (In Figures)
21	3	EA	Tie New Gravity Sewer Line into Existing Manhole		
				Dollars	
				Cents	\$
					\$
22	1	EA	Tie New Storm Line into Existing D.I.		
				Dollars	
				Cents	\$
					\$
23	23	EA	Wye Service Reconnection with Customer Cleanout		
				Dollars	
				Cents	\$
					\$
24	5	EA	Gravity Sewer End of Line Cleanout		
				Dollars	
				Cents	\$
					\$
25	1	LS	Ices Run CSO Flow Monitoring System		
				Dollars	
				Cents	\$
					\$
26	1	LS	Mohawk CSO Flow Monitoring System		
				Dollars	
				Cents	\$
					\$
27	1	LS	Cook Street Pump Station Upgrades		
				Dollars	
				Cents	\$
					\$
28	155	EA	Type A Manhole Repair		
				Dollars	
				Cents	\$
					\$
29	71	EA	Type B Manhole Repair		
				Dollars	
				Cents	\$
					\$

Bid Item	Quantity		Description with Unit Price Written In Words	Unit Price (In Figures)	Total Price (In Figures)
30	14	EA	Type C Manhole Repair		
				Dollars	
				Cents	\$
					\$
31	2	LF	Type D Manhole Repair		
				Dollars	
				Cents	\$
					\$
32	790	LF	WVDOH Type "B" Trench Repair		
				Dollars	
				Cents	\$
					\$
33	655	LF	WVDOH 1-1/2" HMA Overlay with Roto Milling		
				Dollars	
				Cents	\$
					\$
34	335	LF	WVDOH 1-1/2" HMA Overlay w/ Heel In Joints		
				Dollars	
				Cents	\$
					\$
35	200	LF	1-1/2" HMA DW/Road Repair Overlay		
				Dollars	
				Cents	\$
					\$
36	160	LF	Driveway Repair (Gravel)		
				Dollars	
				Cents	\$
					\$
37	85	LF	Driveway Repair (Concrete)		
				Dollars	
				Cents	\$
					\$
38	430	LF	Concrete Sidewalk w/ Curb & Gutter Repair		
				Dollars	
				Cents	\$
					\$

Bid Item	Quantity		Description with Unit Price Written In Words	Unit Price (In Figures)	Total Price (In Figures)
39	2	EA	Test Pit		
				Dollars _____	
				Cents _____	\$ _____
40	28	CY	Rip Rap Stream Protection		
				Dollars _____	
				Cents _____	\$ _____
41	1,200	LF	Reclamation of Disturbed Areas		
				Dollars _____	
				Cents _____	\$ _____
42	1,610	LF	Sewer Line Cleaning & Inspection		
				Dollars _____	
				Cents _____	\$ _____

**TOTAL BID:** \_\_\_\_\_  
 \_\_\_\_\_ (Words) (\$ \_\_\_\_\_)  
 \_\_\_\_\_ (Words) \_\_\_\_\_ (Figures)

**(Bid Unit Price amounts are to be shown in both words and figures. In case of discrepancy, the Bid Unit Price shown in words will govern.)**

3.04 *Method of Award*

If at the time this contract is to be awarded, the lowest total bid submitted by a qualified, responsive, responsible Bidder does not exceed the amount of funds then estimated by the Owner, as available to finance the contract, the construction contract will be awarded. If such bids exceeds such amount, the owner may reject all bids.

- A. Unit prices have been computed in accordance with paragraph 13.03.A of the General Conditions.

- B. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

**ARTICLE 4 ~~BASIS OF BID COST PLUS FEE~~**

4.01 ~~The Contract Price will be the Cost of the Work, determined as provided in Paragraph 13.01 of the General Conditions, together with the following fee, and subject to the Guaranteed Maximum Price.~~

4.02 ~~Contractor's Fee~~

A. ~~Contractor's fee will be [number] percent of the Cost of the Work. No fee will be payable on the basis of costs itemized as excluded in Paragraph 13.01.C of the General Conditions.~~

1. ~~The maximum amount payable by Owner as a percentage fee (Guaranteed Maximum Fee) will not exceed \$[insert cap amount], subject to increases or decreases for changes in the Work.~~

B. ~~Contractor's fee will be determined by applying the following percentages to the various portions of the Cost of the Work as defined in Article 13 of the General Conditions. No fee will be payable on the basis of costs itemized as excluded in Paragraph 13.01.C of the General Conditions:~~

Costs	Percent
Payroll costs (See Paragraph 13.01.B.1, General Conditions)	
Materials and Installed Equipment cost (GC 13.01.B.2)	
Amounts to be paid to Subcontractors (GC 13.01.B.3)	
Amount to be paid to special consultants (GC 13.01.B.4)	
Other costs (GC 13.01.B.5)	

1. ~~The maximum amount payable by Owner as a percentage fee (Guaranteed Maximum Fee) will not exceed \$[insert cap amount], subject to increases or decreases for changes in the Work.~~

C. ~~Contractor's fee will be the fixed sum of \$[number].~~

4.03 ~~Guaranteed Maximum Price~~

A. ~~The Guaranteed Maximum Price to Owner of the Cost of the Work including Contractor's Fee will not exceed \$[Bidder fill in GMP].~~

**Deleted**

**ARTICLE 5 ~~PRICE PLUS TIME BID~~**

5.01 ~~Price Plus Time Contract Award (Stipulated Price Contract)~~

A. ~~The Bidder to which an award of the Contract will be made will be determined in part on the basis of the Total Bid Price and the total number of calendar days to substantially complete the Work, in accordance with the following:~~

	Description		Amount
A	1. Total Bid Price		\$[number]
	2. Total number of calendar days to substantially complete the Work	[number] days	
	3. Liquidated Damages Rate (from Agreement)	\$[number]/day	
B	4. Adjustment Amount (2 x 3)		\$[number]
A+B	5. Amount for Comparison of Bids		\$[number]

~~B. The purpose of the process in the table above is only to calculate the lowest price plus time (A+B) bid amount for bid comparison purposes. The price for completion of the Work (the Contract Price) is the Total Bid Price.~~

~~C. Bonds required under Paragraph 6.01 of the General Conditions will be based on the Contract Price.~~

5.02 ~~Price Plus Time Contract Award (Cost Plus Fee with Guaranteed Maximum Price Contract)~~

~~A. The Bidder to which an award of Contract will be made will be determined in part on the basis of the Guaranteed Maximum Price and the total number of calendar days to substantially complete the Work, in accordance with the following:~~

	Description		Amount
A	1. Guaranteed Maximum Price		\$(number)
	2. Total number of calendar days to substantially complete the Work	{number} days	
	3. Liquidated Damages Rate (from Agreement)	\$(number)/day	
B	4. Adjustment Amount (2 x 3)		\$(number)
A+B	5. Amount for Comparison of Bids		\$(number)

~~B. The purpose of the process in the table above is only to calculate the lowest price plus time (A+B) bid amount for bid comparison purposes. The price for completion of the Work (the Contract Price) is based on the cost of the Work, plus a fee, subject to a guaranteed maximum price, as set forth in the Agreement.~~

~~C. Bonds required under Paragraph 6.01 of the General Conditions will be based on the Contract Price.~~

~~Deleted~~

~~ARTICLE 6—TIME OF COMPLETION~~

~~6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.~~

~~6.02 Bidder agrees that the Work will be substantially complete on or before [Bidder inserts date], and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before [Bidder inserts date].~~

~~Deleted~~

~~6.03 Bidder agrees that the Work will be substantially complete within [Bidder inserts number] calendar days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within [Bidder inserts number] calendar days after the date when the Contract Times commence to run.~~

~~Deleted~~

~~6.04 Bidder accepts the provisions of the Agreement as to liquidated damages.~~

~~ARTICLE 7—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA~~

~~7.01 Bid Acceptance Period~~

~~A. This Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.~~

7.02 *Instructions to Bidders*

- A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

7.03 *Receipt of Addenda*

- A. Bidder hereby acknowledges receipt of the following Addenda:

<b>Addendum Number</b>	<b>Addendum Date</b>

**ARTICLE 8—BIDDER’S REPRESENTATIONS AND CERTIFICATIONS**

8.01 *Bidder’s Representations*

- A. In submitting this Bid, Bidder represents the following:
  1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
  2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
  3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
  4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
  5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
  6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder’s (Contractor’s) safety precautions and programs.
  7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
  8. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
  9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.



10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

8.02 *Bidder's Certifications*

A. The Bidder certifies the following:

1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
3. Bidder has not solicited or induced any individual or entity to refrain from bidding.
4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:
  - a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.
  - b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.
  - c. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels.
  - d. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

BIDDER hereby submits this Bid as set forth above:

Bidder:

\_\_\_\_\_  
*(typed or printed name of organization)*

By: \_\_\_\_\_  
*(individual's signature)*

Name: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Date: \_\_\_\_\_  
*(typed or printed)*

*If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.*

Attest: \_\_\_\_\_  
*(individual's signature)*

Name: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Date: \_\_\_\_\_  
*(typed or printed)*

Address for giving notices:

\_\_\_\_\_  
\_\_\_\_\_

Bidder's Contact:

Name: \_\_\_\_\_  
*(typed or printed)*

Title: \_\_\_\_\_  
*(typed or printed)*

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Bidder's Contractor License No.: (if applicable) \_\_\_\_\_

SECTION 099651 - NON-STRUCTURAL SPRAY-ON MULTI-COMPONENT LINER SYSTEM  
MANHOLE REHABILITATION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract Documents, including General and Supplementary Conditions, and all related Specification Sections, apply to this Section.
- B. EJCDC C-700 Standard General Conditions of the Construction Contract.

1.2 DESCRIPTION

This section specifies non-structural spray-on manhole multi-component liner system manhole rehabilitation including materials and equipment, initial inspection, surface preparation, material installation, and warranty to provide a corrosion resistant liner system that restores the surface profile and eliminates water infiltration and exfiltration.

1.3 REFERENCES

- A. ASTM D7234 - Adhesion
- B. ASTM D412 - Tensile Strength (PSI)
- C. ASTM D412 - Elongation (%)
- D. ASTM D624 - Tear Strength (PLI)
- E. ASTM D2240 - Hardness
- F. ASTM D522 - Flexibility (1/8" mandrel)
- G. ASTM D4060 - Taber Abrasion (mg loss)

1.4 SUBMITTALS

All materials and procedures required to establish compliance with the specifications shall be submitted to the Engineer for review in accordance with Section 013300. Submittals shall include the following:

- A. Technical Data Sheet on each product used.
- B. Material Safety Data Sheet for each product used.
- C. Manufacturer's Certification of Applicator
- D. Certified Applicator Minimum Qualifications as per Section 1.4D.
- E. Descriptive literature, bulletins and/or catalogs of materials.
- F. Work procedures including flow diversion plan and method of repair.
- G. Material and method for repair of leaks or cracks in the structure.
- H. Applicator and Manufacturer warranty forms as per Section 4.1.

1.5 QUALITY ASSURANCE

- A. The Manufacturer of the total lining system for wastewater structures shall be a company that specializes in the design and manufacture of corrosion protection material/systems for wastewater structures.
- B. The Applicator (company performing the installation) shall be completely trained in leak repair, surface preparation and application of the lining system.
- C. The materials/products shall be suitable for installation in a wastewater environment without any deterioration of the liner.
- D. The Applicator shall be trained and provide a letter of certification from the Manufacturer for the handling, mixing, application, and inspection of the liner system.
- E. To ensure total unit responsibility, all materials and installation thereof shall be furnished and coordinated by Manufacturer/Applicator.

## PART 2 - PRODUCTS

### 2.1 MATERIALS AND EQUIPMENT

- A. The materials utilized in the lining of wastewater structures shall be designed and manufactured to withstand the severe effects a wastewater environment. The Manufacturer of the liner system shall have at least ten (10) years of experience in the production of the lining products utilized, and the products shall have a satisfactory installation record.
- B. Equipment for installation of lining materials shall be of high quality and as recommended by the Manufacturer.
- C. The lining system shall be a multi-layer system with a total minimum thickness of 500 mils.
- D. The following minimal material requirements for the polyurea material shall be met:
  - 1. ASTM D412 - Tensile Strength (PSI) - 3200 PSI
  - 2. ASTM D412 - Elongation (%) - 100% Modulus (1500 PSI), 200% Modulus (1800 PSI), 300% Modulus (2350 PSI), Ultimate Elongation (360%)
  - 3. ASTM D624 - Tear Strength (PLI) - 400 PLI
  - 4. ASTM D2240 - Hardness – D 48 or D 50
  - 5. ASTM D522 - Flexibility (1/8" mandrel) Pass
  - 6. ASTM D4060 - Taber Abrasion (mg loss) – 15 mg loss
- E. The liner system shall be one (1) of the following:
  - 1. SpectraShield
  - 2. OBIC
  - 3. Chemline
  - 4. Approved Equal

## PART 3 - EXECUTION

### 3.1 INITIAL INSPECTION

- A. Applicator shall take appropriate action to comply with all local, state, and federal regulations including those set forth by OSHA, EPA, the Owner and any other applicable authorities.
- B. Prior to conducting any work, an initial inspection of the structure shall be performed by the Applicator to determine need for protection against hazardous gases or oxygen depleted atmosphere and the need for flow control or flow diversion.

- C. Applicator shall submit a plan for flow control or bypass to the Engineer for review prior to conducting the work.

### 3.2 SURFACE PREPARATION

A. The surface preparation program shall include, but not be limited to, checking the manhole atmosphere for hydrogen sulfide, methane, low oxygen, or other gases, approved flow control equipment, and surface preparation equipment.

B. Surface preparation for manhole structures shall be in accordance with the Manufacturer's recommendations. This may include high pressure water cleaning, hydro blasting, abrasive blasting, grinding, and/or detergent water cleaning as necessary to provide a surface compatible for installation of the liner system.

D. The surface preparation method(s) shall produce a cleaned, abraded and sound surface with no evidence of laitance, loose concrete, loose brick, loose mortar, roots, contaminants or debris, and shall display a surface profile suitable for application of the liner system in accordance with the Manufacturer's recommendations.

E. After completion of surface preparation, the Applicator shall perform a seven (7) point check inspection and provide a report to the Engineer for the following:

1. Leaks
2. Cracks
3. Holes
4. Exposed Rebar
5. Ring and Cover condition
6. Invert Condition
7. Inlet and Outlet Pipe Condition

F. After the defects in the structure are identified, repair all leaks and cracks with grout material approved by the Manufacturer.

G. Upon completion of leak and crack repair, prime the surface in accordance with the Manufacturer's recommendations.

### 3.3 MATERIAL INSTALLATION

A. Application procedures shall conform to recommendations of the Manufacturer, including materials handling, mixing, environmental controls during application, safety and spray equipment.

B. Spray equipment shall be specifically designed to accurately ratio and apply the liner system.

C. Application of the multi-component liner system shall be in strict accordance with Manufacturer's recommendation. Final installation minimum total thickness shall be 500 mils. A permanent identification and date of work performed shall be affixed to the structure in a readily visible location.

D. A final written report shall be provided to the Engineer detailing the location, date, and description of work performed at each manhole.

3.4 FINAL INSPECTION

- A. The final, exposed layer of the liner system shall be completely free of pinholes and/or voids.
- B. Visual inspection will be made by the Engineer. Any deficiencies in the finished liner system shall be marked and repaired according to the procedures set forth by the Manufacturer.

3.5 WARRANTY

- A. Applicator and Manufacturer shall warrant the liner system materials and installation against failure for a period of ten (10) years from the installation date. Applicator shall correct failures any time prior to the ten (10) years after the installation date. Failure will be deemed to have occurred if the liner system fails to prevent the internal corrosion of the structure or to prevent groundwater infiltration.
- B. Failure does not include damage resulting from mechanical force or the presence of chemical substances not customarily present or used in wastewater structures, defects in the workmanship or devices of others upon which the wastewater structure functions, or an act of God. The liner system be installed in accordance with Manufacturer's instructions by Applicators certified by Manufacturer. Executed 10-year Applicator and Manufacturer warranties shall be provided upon completion of the work and as a requirement for payment.

END OF SECTION 099651