



west virginia department of environmental protection

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Earl Ray Tomblin, Governor
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MEMORANDUM

TO: Katheryn Emery, P.E., Program Manager, DWWM

FROM: David Byrd *DB*

DATE: March 19, 2015

SUBJECT: City of Elkins
Combined Sewer System Improvements Project, Phase I
Bid Underrun Request: WV IJDC #2012S-1373

RECOMMENDATION

The request for possible uses for the bid underrun for the Combined Sewer System Improvements Project, Phase I, from the City of Elkins has been reviewed. I recommend that the uses for the bid underrun be approved and sent to the Funding Committee.

PROJECT DESCRIPTION

The City of Elkins has identified eight areas for possible uses for the bid underrun. The Project bid underrun was \$788,592.00

1. The alley between 3 rd and 4 th Street on Kerens Ave.	\$ 52,181.00
2. The alley between 1 st and 2 nd Street along Kerens Ave.	\$ 10,356.00
3. Along 3 rd Ave. from Kerens Ave.	\$112,084.00
4. Alley at the WVDOT garage	\$ 23,248.00
5. The car wash along College Street	\$ 47,706.00
6. Wilson Street	\$ 42,327.00
7. Along 1 st Street from Kerens Ave. to Henry Ave.	\$108,557.00
8. Sewer Lining along Kerens Ave.	\$208,594.00

The construction and engineering costs for the eight areas totals \$605,053.00. The original scope of this Project will continue to be required to be completed by the October 31, 2015

Promoting a healthy environment.

deadline included in the City's Consent Order. Currently the Project has a 270 day completion time. It will be expected an additional 60-90 days will be required to complete the additional scope items.

NEED FOR PROJECT

In 2011, The City of Elkins entered into a Consent Order with the United States Environmental Protection Agency (USEPA) and the West Virginia Department of Environmental Protection (WVDEP) to address the combined sewer system. As part of the negotiations with the Agencies, a Combined Sewer Overflow (CSO) Long Term Control Plan was completed, which included an Implementation Schedule for Improvements. The purpose of this Project is to meet the first phase of improvements required by the Implementation Schedule to remove significant amounts of storm water inflow and ground water infiltration from the Elkins wastewater collection system.

The "as-bid" project fulfills the requirements of the Consent Order. The Consent Order is associated with the development and implementation of the City's Long Term Control Plan for Combined Sewer Overflows. The use of the bid underrun is to complete additional sewer separations in the same general areas of the collection system. Removing these clean water sources will assist the City of Elkins in meeting the goal of meeting water quality standards for the Tygart Valley River.

The proposed additional work could be part of a future Consent Order if the work was delayed until some future time. The first phase of the CSO improvements was meant to get the worst of the direct storm water connections from the combined sewers. Future projects will be needed in order for the City to eliminate CSO events from the collection system.

CITY OF ELKINS SANITARY BOARD
IJDC PROJECT NO. 2012S-1373
COMBINED SEWER SEPARATION PHASE 1
POSSIBLE USES FOR BID UNDERRUN

Project that was bid focused on the requirements of the Consent Order with WVDEP, USEPA and the USDOJ. Proposed uses for the bid underrun attempts to further reduce the inflow loads onto the combined sewer system in the location of the proposed improvements.

OPTION 1 – Extend the storm sewer along the alley between 3rd and 4th Street on Kerens Avenue to catch drainage from back of adjacent church. Replace the sanitary sewer along the alley.

Construction Cost Increases

Description	Quantity	Unit	Unit Cost	Total
12" HDPE Sewer	86	lf	\$46.00	\$3,956.00
Type B Inlet	1	ea	\$2,100.00	\$2,100.00
Preconstruction CCTV	186	lf	\$7.00	\$1,302.00
Type A-1 Trench Rehabilitation	153	sy	\$64.00	\$9,792.00
1.5" Asphalt Overlay	340	sy	\$11.00	\$3,740.00
1.5" Cold Milling	340	sy	\$5.00	\$1,700.00
Connect to Existing Manholes	1	ea	\$864.00	\$864.00
6" PVC House Service Pipe	215	lf	\$67.00	\$14,405.00
House Service Cleanout	6	ea	\$653.00	\$3,918.00
Sanitary Manhole	1	ea	\$3,500.00	\$3,500.00
Subtotal				\$45,277.00
Contingency (5%)				\$2,264.00
Total				\$47,541.00

Engineering Fee Increases

Phase	Total
Design	\$960.00
Construction	\$560.00
RPR	\$1,680.00
Special Services	\$1,440.00
Total	\$4,640.00

OPTION 2 – Separate sanitary from storm line in alley between 1st and 2nd Streets along Kerens Avenue by installing new manhole.

Construction Cost Increases

Description	Quantity	Unit	Unit Cost	Total
Type A-1 Pavement Restoration	13	sy	\$64.00	\$832.00
Wye Branch, 8x6	1	ea	\$100.00	\$100.00
Sanitary Manhole	2	ea	\$3,500.00	\$7,000.00
6" PVC House Service Pipe	22	lf	\$67.00	\$1,474.00
Subtotal				\$9,406.00
Contingency				\$470.00
Total				\$9,876.00

Engineering Fee Increases

Phase	Total
Design	\$480.00
Construction	
RPR	
Special Services	
Total	\$480.00

OPTION 3 – Extend storm sewers along 3rd Avenue from Kerens Avenue to pick up existing storm catch basins in alley.

Construction Cost Increases

Description	Quantity	Unit	Unit Cost	Total
12" HDPE Sewer	640	lf	\$46.00	\$29,440.00
Storm Manholes	2	ea	\$2,400.00	\$4,800.00
Type B Inlet	4	ea	\$2,100.00	\$8,400.00
Type A-1 Trench Rehabilitation	356	sy	\$64.00	\$22,784.00
1.5" Asphalt Overlay	1,725	sy	\$11.00	\$18,975.00
1.5" Cold Milling	1,725	sy	\$5.00	\$8,625.00
Connect to Existing Manholes	4	ea	\$864.00	\$3,456.00
Subtotal				\$96,480.00
Contingency				\$4,824.00
Total				\$101,304.00

Engineering Fee Increases

Phase	Total
Design	\$1,440.00
Construction	\$1,120.00
RPR	\$6,300.00
Special Services	\$1,920.00
Total	\$10,780.00

OPTION 4 – Separate trench drain behind funeral home in alley at the WVDOH garage along Kerens Avenue.

Construction Cost Increases

Description	Quantity	Unit	Unit Cost	Total
12" HDPE Sewer	140	lf	\$46.00	\$6,440.00
Type B Inlet	1	ea	\$2,100.00	\$2,100.00
Type A-1 Trench Rehabilitation	78	sy	\$64.00	\$4,992.00
1.5" Asphalt Overlay	175	sy	\$11.00	\$1,925.00
1.5" Cold Milling	175	sy	\$5.00	\$875.00
Connect to Existing Manholes	1	ea	\$864.00	\$864.00
Tee Branch 12"x6"	1	ea	\$250.00	\$250.00
Tee Branch 18"x12"	1	ea	\$1,000.00	\$1,000.00
Subtotal				\$18,446.00
Contingency				\$922.00
Total				\$19,368.00

Engineering Fee Increases

Phase	Total
Design	\$480.00
Construction	\$280.00
RPR	\$1,680.00
Special Services	\$1,440.00
Total	\$3,880.00

OPTION 5 – Separate trench drains at the car wash along College Street and place into proposed storm drains.

Construction Cost Increases

Description	Quantity	Unit	Unit Cost	Total
12" HDPE Sewer	185	lf	\$46.00	\$8,510.00
Type B Inlet	1	ea	\$2,100.00	\$2,100.00
Type A-1 Trench Rehabilitation	14	sy	\$64.00	\$896.00
Type F Trench Rehabilitation	351	sy	\$76.00	\$26,676.00
Connect to Existing Manholes	2	ea	\$864.00	\$1,728.00
Tee Branch 12"x6"	1	ea	\$250.00	\$250.00
6" PVC House Service Pipe	50	lf	\$67.00	\$3,350.00
Subtotal				\$43,510.00
Contingency				\$2,176.00
Total				\$45,686.00

Engineering Fee Increases

Phase	Total
Design	\$480.00
Construction	\$280.00
RPR	\$1,260.00
Special Services	
Total	\$2,020.00

OPTION 6 – Extend storm drain system at Wilson Street to connect two catch basins along Central Avenue.

Construction Cost Increases

Description	Quantity	Unit	Unit Cost	Total
12" HDPE Sewer	225	lf	\$46.00	\$10,350.00
Storm Manholes	1	ea	\$2,400.00	\$2,400.00
Type B Inlet	2	ea	\$2,100.00	\$4,200.00
Tee Branch 12x12	1	ea	\$600.00	\$600.00
Type A-1 Trench Rehabilitation	25	sy	\$64.00	\$1,600.00
Type C Trench Rehabilitation	42	sy	\$40.00	\$3,276.00
1.5" Asphalt Overlay	651	sy	\$11.00	\$7,161.00
1.5" Cold Milling	651	sy	\$5.00	\$3,255.00
Compacted Granular Backfill	50	cy	\$33.00	\$1,650.00
Subtotal				\$34,492.00
Contingency				\$1,725.00
Total				\$36,217.00

Engineering Fee Increases

Phase	Total
Design	\$960.00
Construction	\$560.00
RPR	\$3,150.00
Special Services	\$1,440.00
Total	\$6,110.00

OPTION 7 – Extend storm drains along 1st Street from Kerens Avenue to Henry Avenue to further reduce inflow.

Construction Cost Increases

Description	Quantity	Unit	Unit Cost	Total
12" HDPE Sewer	90	lf	\$46.00	\$4,140.00
18" HDPE Sewer	400	lf	\$91.00	\$36,400.00
Storm Manholes	2	ea	\$2,400.00	\$4,800.00
Type B Inlet	4	ea	\$2,100.00	\$8,400.00
Type A-1 Trench Rehabilitation	272	sy	\$64.00	\$17,408.00
1.5" Asphalt Overlay	1,390	sy	\$11.00	\$15,290.00
1.5" Cold Milling	1,390	sy	\$5.00	\$6,950.00
Subtotal				\$93,388.00
Contingency				\$4,669.00
Total				\$98,057.00

Engineering Fee Increases

Phase	Total
Design	\$1,440.00
Construction	\$840.00
RPR	\$6,300.00
Special Services	\$1,920.00
Total	\$10,500.00

OPTION 8 – Expand on sewer lining up Kerens Avenue to include additional sewers.

Construction Cost Increases

Description	Quantity	Unit	Unit Cost	Total
Existing Manhole and Frame Replacement	8	ea	\$677.00	\$5,416.00
12" Point Repair	4	ea	\$700.00	\$2,800.00
15" Point Repair	8	ea	\$700.00	\$5,600.00
12" Point Repair Pipe	48	lf	\$300.00	\$14,400.00
15" Point Repair Pipe	96	lf	\$400.00	\$38,400.00
Preconstruction CCTV	1,140	lf	\$7.00	\$7,980.00
12" Sanitary Sewer Lining	350	lf	\$52.00	\$18,200.00
15" Sanitary Sewer Lining	790	lf	\$55.00	\$43,450.00
Reestablish Sewer Connections	15	ea	\$126.00	\$1,890.00
Manhole Rehab Quantity	8	ea	\$929.00	\$7,432.00
Manhole Rehab Depth	64	vfd	\$450.00	\$28,800.00
Type A-1 Trench Rehabilitation	176	sy	\$64.00	\$11,264.00
Subtotal				\$185,632.00
Contingency				\$9,282.00
Total				\$194,914.00

Engineering Fee Increases

Phase	Total
Design	\$480.00
Construction	\$2,400.00
RPR	\$8,400.00
Special Services	\$2,400.00
Total	\$13,680.00