

## MEMORANDUM

TO: Programs, Projects and Operations Subcommittee

FROM: Martin P. Cleveland, Construction Engineer

SUBJECT: Big Papio Creek Levee Culverts Project

DATE: January 5, 2016

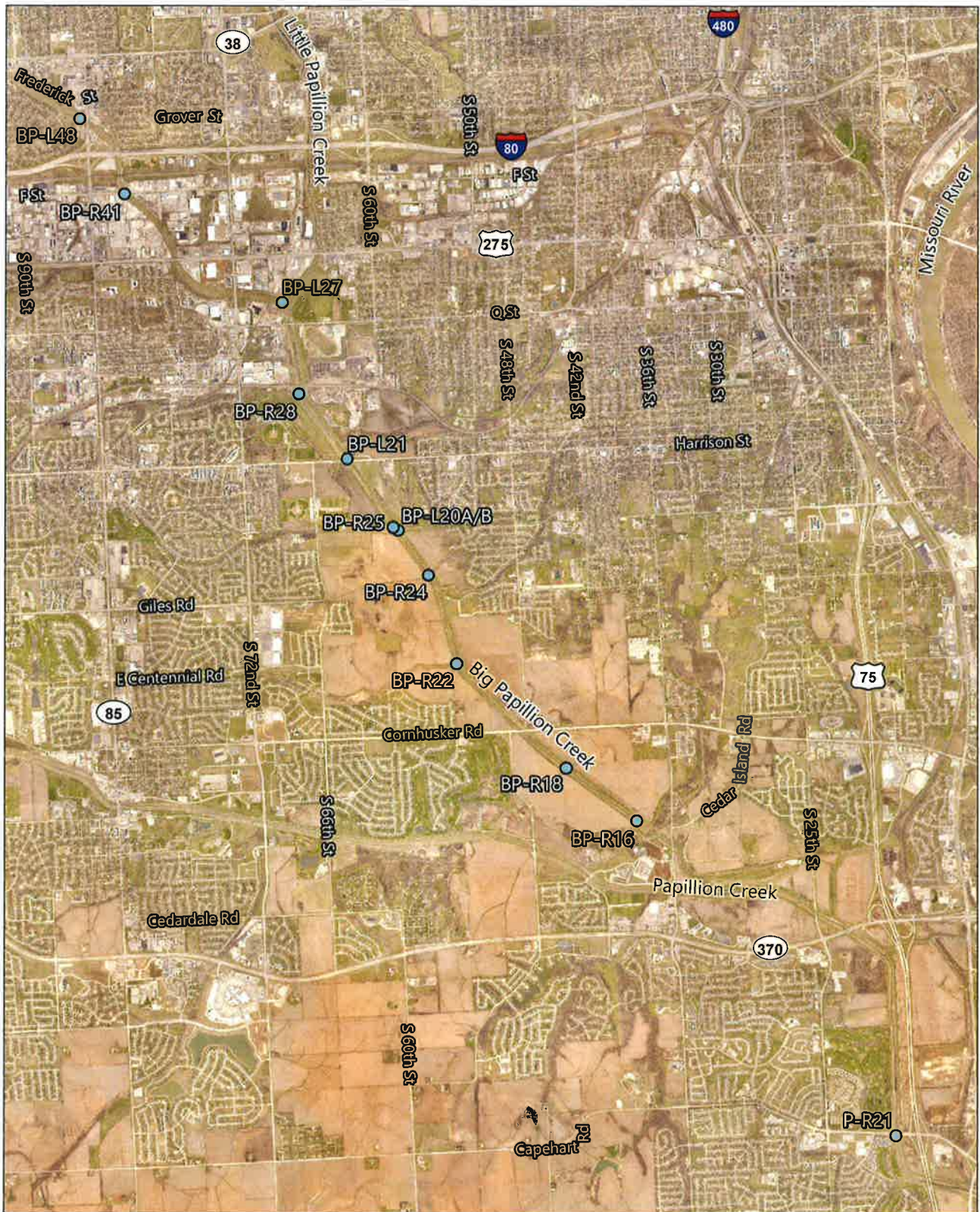
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The Big Papio Levee Culverts Project is located in Douglas and Sarpy Counties, in Nebraska, as shown on the enclosed location map. The project consists replacing four corrugated metal pipes (CMP) with reinforced concrete pipe (RCP) and high density polyethylene pipe (HDPE). In addition, nine corrugated metal pipes will be lined with HDPE pipe. The thirteen corrugated metal pipes have corroded inverts with perforations.

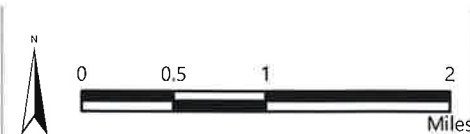
On December 29, 2015, the District opened bids for the Big Papio Levee Culverts project. The two bids ranged from \$1,994,990.68 to \$2,639,326.42. The apparent low bid of \$1,994,990.68 was submitted by ME Collins. Enclosed is a bid summary. The ME Collins bid total listed on bid tab was \$1,994,854.58 vs. actual total of \$1,994,990.68

The Engineer's cost estimate for the Big Papio Levee Culverts project, prepared by FYRA Engineering, is \$1,144,822.25. Enclosed is a recommendation letter from FYRA to reject all bids.

**Management recommends that the Programs, Projects and Operations Subcommittee recommend to the Board of Directors that the General Manager be authorized to reject all of the December 29, 2015 bids for the construction of the Big Papio Levee Culverts Project and rebid the project.**



**Location Map** - Figure 1  
Big Papio Levee Culverts Project  
Papio-Missouri River NRD  
Douglas and Sarpy County, NE





January 5, 2015

Mr. Martin Cleveland  
Papio-Missouri River NRD  
8901 S. 154<sup>th</sup> Street  
Omaha, NE 68138

Re: Big Papio Levee Culverts Project – Bid Recommendation

Dear Martin:

The bid opening for the above-referenced project was held at the P-MRNRD on December 29, 2015. Two bids were received for the project. The results of the bids are attached to this letter in the form of a bid tabulation sheet. The low bid of \$1,994,990.68 was received from M.E. Collins Co. Inc, of Wahoo, NE and was above the engineer's estimate of \$1,144,822.25.

After a review of the bids, many of the unit prices appear to be much higher than the engineer's opinion of probable construction costs (EOPCC). The attached bid tabulation sheet also shows the deviation from EOPCC and the low bidder's bid items which assists in seeing where the discrepancies lie. The items which seem to have the largest deviations are mobilization, pipe cleaning, SWPPP measures, excavation, levee embankment, 96" diameter RCP, timber pile pipe supports and riprap. In most instances, the costs of sliplining w/grout was lower than the EOPCC.

In speaking with Jerry Kabourek of M.E. Collins Co., Inc. there were several factors that could have led to the cost deviations. Jerry stated that the higher costs for mobilization, pipe cleaning, and SWPPP measures were due to the uncertainty of working near the Big Papillion Creek and fluctuations of the creek level. He was of the opinion that high water in the channel could lead to all of these items having to be done multiple times and the unknowns are built into the bid with these specific items. Excavation and levee embankment also had some uncertainty with the proximity to the creek (ring levees and possible height adjustments) but that compaction requirements (and associated testing) of the levee material was the biggest factor in the higher costs. The EOPCC for the 96" diameter RCP was estimated after speaking to a local supplier and the supplier that M.E. Collins used quoted a cost almost double the EOPCC. Jerry mentioned that the riprap was assumed to be dumped in one location and then placed with a small dozer (because of possible wet conditions) and that the multiple moves likely led to a cost above the EOPCC. Jerry did state that the construction time of 50 working days was very stringent and that if this contract is awarded he would anticipate a negotiation of the working days, but also stated that increasing the working days would likely not change M.E. Collin's submitted bid.

Several other contractors who had expressed interest in the project were contacted to ask why they did not submit a bid. Two of the contractors stated that the working days seemed too low but that the ultimate reason was due to existing workload. Another contractor stated that working days seemed more than adequate, but existing workload precluded them from submitting a bid as well. All three of these contractors stated that if the timeframe could be pushed back several months for an

April or May start date, they would have been more likely to submit a bid. None of the contractors thought that breaking up the project into smaller projects would affect their decisions to submit a bid.

Lastly, the Elkhorn River Bank Stabilization project bid the following day, on 30 December. There were nine bids for that project. Many of the bidders were also plan holders for this Big Papio Levee Culverts Project. At the bid opening, several contractors were asked why they did not submit a bid for this project and the answers varied, but were in line with the reasons given above and I think many had hoped to win the Elkhorn River project as it was a bit more in their "comfort zone." Bid prices on that project were under the EOPCC, including riprap which was bid at less than half the unit price of the bids on the Big Papio Levee Culverts Project.

Collectively, because the material costs were not the reason for high bid prices on this project and most of the reasoning offered was related to Contractor's uncertainties in the project execution, FYRA's suggestion is to re-bid the project once some of the winter work has been executed by the collective contractors. It is also likely that unsuccessful bidders on the Elkhorn River project will also be more likely to bid. Re-bidding the project prior to the March Board meeting should allow contractors to complete work they have on their books which wasn't able to be completed due to unusually wet weather. This would mean a construction start just prior to the rainy season, but if we give the contractors a completion date that will allow them some time to work around the rain, the net effect on the total project costs should be positive. The bid date not occurring in the middle of a holiday season should also help. Along with re-bidding the project, the following things should be considered to try and enhance the number and quality of the bids received;

1. Increase the number of working days from 50 to 95. This will allow a longer time period for contractors to complete the work within their existing commitments. 95 working days would take an April 1<sup>st</sup> start date and require Contractors to be completed around the end of August. If they are given until Labor Day, this is likely to give them a higher comfort level with the project. This may cause a few scheduling headaches depending on if we require them to work continuously once they begin, but they will likely be worth the cost savings recognized. This will also allow the contractor adequate time to work outside of the summer months (April 1<sup>st</sup> to August 1<sup>st</sup>) on the sites which require ring levees outside of the summer months so that full height ring levees are not required.
2. Reach out to all contractors that were plan holders (and others that did not bid the project) to make sure they are aware of the change in bid date.

Please feel free to contact me if you have any questions.

Sincerely,



Michael K. Sotak, P.E.

**Big Papio Levee Culverts Project - Bid Tabulation Sheet**

**City of Bellevue Culvert**

<b>Contractor</b>			<b>M.E. Collins</b>		<b>Valley Corporation</b>	
<b>Item</b>	<b>Unit</b>	<b>Total</b>	<b>Unit Cost</b>	<b>Extension</b>	<b>Unit Cost</b>	<b>Extension</b>
Mobilization	LS	1	\$ 54,352.00	\$ 54,352.00	\$ 16,903.74	\$ 16,903.74
Dewatering & Pipe Cleaning	LS	1	\$ 36,082.00	\$ 36,082.00	\$ 8,343.77	\$ 8,343.77
Strip, Stockpile, and Replace 6" Topsoil	SY	405	\$ 0.50	\$ 202.50	\$ 9.34	\$ 3,782.70
Excavation	CY	1194	\$ 12.00	\$ 14,328.00	\$ 15.00	\$ 17,910.00
Embankment	CY	6	\$ 32.00	\$ 192.00	\$ 134.98	\$ 809.88
Levee Embankment	CY	936	\$ 14.00	\$ 13,104.00	\$ 18.84	\$ 17,634.24
Remove Concrete Headwall	EA	1	\$ 315.00	\$ 315.00	\$ 565.90	\$ 565.90
Remove 36" Dia CMP	LF	36	\$ 53.00	\$ 1,908.00	\$ 20.97	\$ 754.92
Remove, Recondition and Reinstall 36" Dia Flap Gate	EA	1	\$ 3,156.00	\$ 3,156.00	\$ 2,141.32	\$ 2,141.32
36" Dia CMP	LF	8.5	\$ 152.00	\$ 1,292.00	\$ 141.95	\$ 1,206.58
30" Dia RCP	LF	36	\$ 188.00	\$ 6,768.00	\$ 146.64	\$ 5,279.04
30" Dia RCP Flared End Section	EA	1	\$ 2,332.00	\$ 2,332.00	\$ 1,974.33	\$ 1,974.33
30" Dia HDPE Sliplining w/Grout	LF	153	\$ 181.00	\$ 27,693.00	\$ 273.90	\$ 41,906.70
36" Joint Block	EA	1	\$ 3,608.00	\$ 3,608.00	\$ 1,989.95	\$ 1,989.95
6" Crushed Rock Surfacing	SY	138	\$ 22.00	\$ 3,036.00	\$ 26.62	\$ 3,673.56
Double Timber Pile Pipe Support	EA	1	\$ 10,550.00	\$ 10,550.00	\$ 15,530.06	\$ 15,530.06
Class "C" RipRap	TN	235	\$ 72.00	\$ 16,920.00	\$ 71.50	\$ 16,802.50
Class "B" RipRap	TN	66	\$ 72.00	\$ 4,752.00	\$ 71.50	\$ 4,719.00
SWPPP Measures	LS	1	\$ 13,747.00	\$ 13,747.00	\$ 3,566.41	\$ 3,566.41
Seeding	AC	0.5	\$ 6,029.00	\$ 3,014.50	7,981.96	\$ 3,990.98
			<b>TOTAL</b>	<b>\$ 217,352.00</b>	<b>TOTAL</b>	<b>\$ 169,485.58</b>

**City of Omaha Culverts**

<b>Contractor</b>			<b>M.E. Collins</b>		<b>Valley Corporation</b>	
<b>Item</b>	<b>Unit</b>	<b>Total</b>	<b>Unit Price</b>	<b>Extension</b>	<b>Unit Price</b>	<b>Extension</b>
MOBILIZATION	LS	1	\$ 105,050.00	\$ 105,050.00	\$ 88,544.10	\$ 88,544.10
DEWATERING & PIPE CLEANING	LS	1	\$ 19,959.00	\$ 19,959.00	\$ 39,799.05	\$ 39,799.05
SWPPP MEASURES	LS	1	\$ 10,094.00	\$ 10,094.00	\$ 10,699.23	\$ 10,699.23
STRIP, STOCKPILE, AND REPLACE 6" TOPSOIL	SY	485	\$ 0.50	\$ 242.50	\$ 16.94	\$ 8,215.90
EXCAVATION	CY	1143	\$ 12.00	\$ 13,716.00	\$ 15.00	\$ 17,145.00
EMBANKMENT	CY	447	\$ 11.00	\$ 4,917.00	\$ 27.60	\$ 12,337.20
REMOVE AND REPLACE SPLIT RAIL FENCE	LF	75	\$ 24.00	\$ 1,800.00	\$ 44.30	\$ 3,322.50
REMOVE 24" DIA CMP	LF	30	\$ 32.00	\$ 960.00	\$ 41.94	\$ 1,258.20
REMOVE 36" DIA CMP	LF	10	\$ 32.00	\$ 320.00	\$ 83.88	\$ 838.80
REMOVE 42" DIA CMP	LF	52	\$ 53.00	\$ 2,756.00	\$ 41.94	\$ 2,180.88
REMOVE 24" DIA FLAP GATE	EA	2	\$ 315.00	\$ 630.00	\$ 472.57	\$ 945.14
20" DIA SOLID WALL HDPE	LF	30	\$ 86.00	\$ 2,580.00	\$ 166.93	\$ 5,007.90
20" DIA HDPE SLIPLINING W/GROUT	LF	500	\$ 129.00	\$ 64,500.00	\$ 319.19	\$ 159,595.00
30" DIA HDPE SLIPLINING W/GROUT	LF	135	\$ 181.00	\$ 24,435.00	\$ 281.56	\$ 38,010.60
42" DIA RCP	LF	52	\$ 357.00	\$ 18,564.00	\$ 199.66	\$ 10,382.32
42" DIA RCP PIPE BEND	EA	1	\$ 5,398.00	\$ 5,398.00	\$ 3,635.81	\$ 3,635.81
HIGH STRENGTH INFLATABLE PIPE PLUG	EA	2	\$ 16,305.00	\$ 32,610.00	\$ 4,873.36	\$ 9,746.72
24" CONCRETE JOINT BLOCK	EA	2	\$ 3,083.00	\$ 6,166.00	\$ 771.77	\$ 1,543.54
42" JOINT BLOCK	EA	1	\$ 4,892.00	\$ 4,892.00	\$ 2,929.37	\$ 2,929.37
42" DIA CONCRETE COLLAR	EA	1	\$ 1,347.00	\$ 1,347.00	\$ 3,549.62	\$ 3,549.62
18" DIA METAL FLARED END SECTION W/TAPER SLEEVE	EA	2	\$ 2,253.00	\$ 4,506.00	\$ 504.08	\$ 1,008.16
24" DIA FLAP GATE	EA	2	\$ 3,135.00	\$ 6,270.00	\$ 1,089.12	\$ 2,178.24
36" DIA FLAP GATE	EA	1	\$ 3,664.00	\$ 3,664.00	\$ 2,606.51	\$ 2,606.51
42" DIA FLAP GATE	EA	1	\$ 4,277.00	\$ 4,277.00	\$ 3,810.08	\$ 3,810.08
SINGLE TIMBER PILE PIPE SUPPORT	EA	4	\$ 4,126.00	\$ 16,504.00	\$ 6,399.16	\$ 25,596.64
DOUBLE TIMBER PILE PIPE SUPPORT	EA	1	\$ 9,608.00	\$ 9,608.00	\$ 14,379.64	\$ 14,379.64
CLASS "C" RIPRAP	TN	627	\$ 72.00	\$ 45,144.00	\$ 73.26	\$ 45,934.02
CLASS "B" RIPRAP	TN	171	\$ 72.00	\$ 12,312.00	\$ 71.50	\$ 12,226.50

Agenda Item: 7.

<b>Contractor</b>			<b>M.E. Collins</b>		<b>Valley Corporation</b>	
<b>Item</b>	<b>Unit</b>	<b>Total</b>	<b>Unit Price</b>	<b>Extension</b>	<b>Unit Price</b>	<b>Extension</b>
GEOTEXTILE FABRIC	SY	223	\$ 4.00	\$ 892.00	\$ 8.08	\$ 1,801.84
SEEDING	AC	1.5	\$ 5,435.00	\$ 8,152.50	\$ 5,094.38	\$ 7,641.57
WETLAND SEEDING	AC	0.02	\$ 6,805.00	\$ 136.10	\$ 21,479.50	\$ 429.59
			<b>TOTAL</b>	<b>\$ 432,402.10</b>	<b>TOTAL</b>	<b>\$ 537,299.67</b>
			<b>Total listed on Bid Tab</b>	<b>\$ 432,266.00</b>		

**Remaining Culverts**

Contractor			M.E. Collins		Valley Corporation	
Item	Unit	Total	Unit Price	Extension	Unit Price	Extension
Mobilization	LS	1	\$ 52,525.00	\$ 52,525.00	\$ 311,607.51	\$ 311,607.51
Dewatering & Pipe Cleaning	LS	1	\$ 21,010.00	\$ 21,010.00	\$ 72,066.55	\$ 72,066.55
SWPPP Measures	LS	1	\$ 13,747.00	\$ 13,747.00	\$ 28,531.27	\$ 28,531.27
Clearing and Grubbing	LS	1	\$ 22,060.00	\$ 22,060.00	\$ 12,206.59	\$ 12,206.59
Strip, Stockpile, and Replace 6" Topsoil	SY	4661	\$ 0.30	\$ 1,398.30	\$ 12.00	\$ 55,932.00
Ring Levee Embankment and Removal	CY	1672	\$ 24.00	\$ 40,128.00	\$ 37.69	\$ 63,017.68
Temporary 24" Dia CMP through Ring Levee	LF	199	\$ 53.00	\$ 10,547.00	\$ 66.44	\$ 13,221.56
Temporary 24" Dia Flap Gate for Ring Levee	EA	2	\$ 1,411.00	\$ 2,822.00	\$ 1,089.12	\$ 2,178.24
Embankment	CY	1174	\$ 14.00	\$ 16,436.00	\$ 27.60	\$ 32,402.40
Excavation	CY	14702	\$ 9.00	\$ 132,318.00	\$ 10.72	\$ 157,605.44
Levee Embankment	CY	11022	\$ 14.00	\$ 154,308.00	\$ 18.84	\$ 207,654.48
Remove 15"/12" Dia CMP	LF	203	\$ 25.00	\$ 5,075.00	\$ 20.97	\$ 4,256.91
Remove 18" Dia CMP	LF	40	\$ 25.00	\$ 1,000.00	\$ 20.97	\$ 838.80
Remove 24" Dia CMP	LF	60	\$ 25.00	\$ 1,500.00	\$ 20.97	\$ 1,258.20
Remove 48" Dia CMP	LF	131	\$ 25.00	\$ 3,275.00	\$ 41.94	\$ 5,494.14
Remove 84" Dia CMP	LF	118	\$ 53.00	\$ 6,254.00	\$ 52.43	\$ 6,186.74
Remove 15" Dia Flared End Section	EA	1	\$ 105.00	\$ 105.00	\$ 838.82	\$ 838.82
Remove 24" Dia Flared End Section	EA	1	\$ 105.00	\$ 105.00	\$ 1,048.51	\$ 1,048.51
Remove 36" Dia Flared End Section	EA	1	\$ 158.00	\$ 158.00	\$ 1,398.01	\$ 1,398.01
Remove 24" Dia Flap Gate	EA	1	\$ 315.00	\$ 315.00	\$ 945.14	\$ 945.14
Remove and Salvage (to Owner) 48" Dia Flap Gate	EA	1	\$ 735.00	\$ 735.00	\$ 1,341.80	\$ 1,341.80
Remove and Salvage(to Owner) 84" Dia Flap Gate	EA	1	\$ 1,576.00	\$ 1,576.00	\$ 1,563.31	\$ 1,563.31
Remove Existing Combination Curb Inlet	EA	1	\$ 1,050.00	\$ 1,050.00	\$ 2,097.02	\$ 2,097.02
Remove Timber Pile Pipe Support	EA	1	\$ 525.00	\$ 525.00	\$ 972.60	\$ 972.60
Remove and Replace 6' Chain Link Fence w/Barbed Wire	LF	70	\$ 83.00	\$ 5,810.00	\$ 44.30	\$ 3,101.00
Remove and Replace Pavement	SY	30	\$ 75.00	\$ 2,250.00	\$ 132.91	\$ 3,987.30
Flowable Concrete for Pipe Abandonment	CY	7	\$ 251.00	\$ 1,757.00	\$ 658.41	\$ 4,608.87
Type "A" Single Inlet w/Cast Iron Curb Inlet	EA	1	\$ 3,832.00	\$ 3,832.00	\$ 4,606.29	\$ 4,606.29



Contractor			M.E. Collins		Valley Corporation	
Item	Unit	Total	Unit Price	Extension	Unit Price	Extension
48" Dia Manhole	EA	1	\$ 3,101.00	\$ 3,101.00	\$ 4,553.63	\$ 4,553.63
Tap Existing Area Inlet	EA	2	\$ 891.00	\$ 1,782.00	\$ 626.48	\$ 1,252.96
18" Dia Solid Wall HDPE	LF	214	\$ 55.00	\$ 11,770.00	\$ 67.99	\$ 14,549.86
20" Dia Solid Wall HDPE	LF	181	\$ 62.00	\$ 11,222.00	\$ 83.05	\$ 15,032.05
20" Dia HDPE Sliplining w/Grout	LF	572	\$ 130.00	\$ 74,360.00	\$ 208.95	\$ 119,519.40
30" Dia HDPE Sliplining w/Grout	LF	178	\$ 181.00	\$ 32,218.00	\$ 246.12	\$ 43,809.36
24" Dia CMP	LF	20	\$ 58.00	\$ 1,160.00	\$ 102.42	\$ 2,048.40
60" Dia RCP	LF	124	\$ 539.00	\$ 66,836.00	\$ 362.40	\$ 44,937.60
96" Dia RCP	LF	152	\$ 1,560.00	\$ 237,120.00	\$ 1,073.61	\$ 163,188.72
24" Concrete Joint Block	EA	1	\$ 982.00	\$ 982.00	\$ 1,535.26	\$ 1,535.26
60" Dia Concrete Collar	EA	1	\$ 4,526.00	\$ 4,526.00	\$ 4,967.32	\$ 4,967.32
96" Dia Concrete Collar	EA	1	\$ 9,682.00	\$ 9,682.00	\$ 7,918.46	\$ 7,918.46
18" Dia Metal Flared End Section w/Taper Sleeve	EA	1	\$ 2,347.00	\$ 2,347.00	\$ 1,008.15	\$ 1,008.15
24" Dia Galvanized Steel Flared End Section	EA	2	\$ 503.00	\$ 1,006.00	\$ 1,078.44	\$ 2,156.88
36" Dia Galvanized Steel Flared End Section	EA	1	\$ 912.00	\$ 912.00	\$ 1,472.20	\$ 1,472.20
60" Dia RCP Flared End Section	EA	1	\$ 5,980.00	\$ 5,980.00	\$ 8,407.76	\$ 8,407.76
96" Dia RCP Sloped End Section	EA	1	\$ 19,961.00	\$ 19,961.00	\$ 20,458.24	\$ 20,458.24
Remove, Recondition and Reinstall 24" Dia Flap Gate	EA	1	\$ 1,831.00	\$ 1,831.00	\$ 2,141.32	\$ 2,141.32
Remove, Recondition and Reinstall 36" Dia Flap Gate	EA	1	\$ 2,407.00	\$ 2,407.00	\$ 2,879.71	\$ 2,879.71
21" Dia Flap Gate	EA	1	\$ 1,607.00	\$ 1,607.00	\$ 2,133.94	\$ 2,133.94
24" Dia Flap Gate	EA	2	\$ 1,621.00	\$ 3,242.00	\$ 2,178.24	\$ 4,356.48
60" Dia Flap Gate	EA	1	\$ 7,723.00	\$ 7,723.00	\$ 6,645.48	\$ 6,645.48
96" Dia Flap Gate	EA	1	\$ 16,573.00	\$ 16,573.00	\$ 12,552.58	\$ 12,552.58
Sheet Pile	SF	528	\$ 34.00	\$ 17,952.00	\$ 72.64	\$ 38,353.92
Single Timber Pile Pipe Support	EA	4	\$ 5,595.00	\$ 22,380.00	\$ 6,208.65	\$ 24,834.60
Double Timber Pile Pipe Support	EA	1	\$ 12,651.00	\$ 12,651.00	\$ 13,275.02	\$ 13,275.02
BP-R22 Timber Pile Pipe Supports	EA	1	\$ 24,616.00	\$ 24,616.00	\$ 54,843.24	\$ 54,843.24
BP-R24 Timber Pile Pipe Supports	EA	1	\$ 16,396.00	\$ 16,396.00	\$ 30,854.53	\$ 30,854.53
6" Crushed Rock Surfacing	SY	803	\$ 19.00	\$ 15,257.00	\$ 21.93	\$ 17,609.79
Class "B" RipRap	TN	458	\$ 72.00	\$ 32,976.00	\$ 86.41	\$ 39,575.78

Agenda Item: 7.

<b>Contractor</b>			<b>M.E. Collins</b>		<b>Valley Corporation</b>	
<b>Item</b>	<b>Unit</b>	<b>Total</b>	<b>Unit Price</b>	<b>Extension</b>	<b>Unit Price</b>	<b>Extension</b>
Class "C" RipRap	TN	2047	\$ 72.00	\$ 147,384.00	\$ 84.54	\$ 173,053.38
Wetland Seeding	AC	0.06	\$ 13,108.00	\$ 786.48	\$ 35,799.50	\$ 2,147.97
Seeding	AC	7.2	\$ 4,704.00	\$ 33,868.80	\$ 6,875.00	\$ 49,500.00
			<b>TOTAL</b>	<b>\$ 1,345,236.58</b>	<b>TOTAL</b>	<b>\$ 1,932,541.17</b>

**Total for all Culverts** **\$ 1,994,990.68**  
**Listed on Bid Tab** **\$ 1,994,854.58**

**\$ 2,639,326.42**