

Agenda Item: 11.

MEMORANDUM

TO: Programs, Projects and Operations Subcommittee
FROM: Martin P. Cleveland, Construction Engineer
SUBJECT: Whitted Creek Refinement Project
DATE: June 30, 2016

The Whitted Creek Refinement Project is located in Sarpy County, Nebraska, southeast of 25th Street and Capehart Rd, as shown on the enclosed location map. The Whitted Creek Project between 25th Street and Papio Creek Confluence was rehabilitated in 2009 and utilized bioengineering and installation of 14 cross vane structures with about 2 ft. of vertical drop per location to slowly transition the grade of the previously severely degraded streambed in order to protect the integrity of the Whitted Creek Levee located adjacent to the creek. As a result of high water events and creek erosion since 2009, there is a need to repair 3 locations. The Refinement Project consists of replacing 120 linear feet of eroded soil riprap and repairing two cross vanes that have deteriorated due to erosion.

On June 30 2016, the District opened bids for the Whitted Creek Refinement Project. The two bids ranged from \$70,331.33 to \$ 85,110. The apparent low bid of \$70,331.33 was submitted by Valley Corporation, Inc. Enclosed is a bid summary.

The Engineer's cost estimate for the Whitted Creek Refinement Project, prepared by CH2M Engineering, is \$43,530.64. Enclosed is the engineer's bid recommendation letter.

Management recommends that the Programs, Projects and Operations Subcommittee recommend to the Board of Directors that the General Manager be authorized to execute a contract with Valley Corporation, Inc. for the amount of \$70,331.33 for the construction of the Whitted Creek Refinement Project.

Summary of Bid Proposals

Project: Whitted Creek Refinement Project
Opening Date: June 30, 2016

NRD Project No. 529
Opening Time: 10:00 a.m.

		BIDDERS:			Niewohner Construction		Valley Corp.		Engineer's Estimate	
Item No.	Description	Estimated Quantity	Unit	Bid Unit Price	Extended Unit Price	Bid Unit Price	Extended Unit Price	Bid Unit Price	Extended Unit Price	
1	MOBILIZATION/DEMOBILIZATION, BONDS, AND INSURANCE	1	LS	12000	12000	6998.58	6998.58	2590	2590	
2	STREAM FLOW TEMPORARY BY-PASS PUMPING AND DEWATERING	1	LS	4000	4000	15980.56	15980.56	6370	6370	
3	CONSTRUCT GROUTED TYPE C RIP-RAP (CROSS VANE INFILL)	79	TON	250	19750	163.61	12925.19	62.79	4960.41	
4	CONSTRUCT SOIL RIP-RAP (TYPE B)	60	LF	150	9000	110.25	6615.00	105.70	6341.79	
5	CONSTRUCT SOIL RIP-RAP (TYPE C)	60	LF	150	9000	126.77	7606.20	188.69	11321.30	
6	INSTALL COIR WOVEN FABRIC	423	SY	18.00	7614	8.96	3790.08	7.58	3206.34	
7	INSTALL ROLLED EROSION CONTROL	673	SY	8.00	5384	3.51	2362.23	2.73	1837.29	
8	INSTALL COIR LOG	150	LF	12.50	1875	8.96	1344.00	14.06	2109.00	
9	INSTALL NATIVE GRASS SEED - WETLAND MIX	196	SY	10.00	1960	7.47	1464.12	1.75	343.00	
10	INSTALL NATIVE GRASS SEED MIX - LEVEE SEED MIX	387	SY	9.00	3483	5.97	2310.39	1.75	677.25	
11	EXCAVATION HAUL-OFF	73	CY	28.00	2044	15.58	1137.34	21.69	1583.37	
12	IMPORTED FILL PROCUREMENT	0	CY	25.00	-	18.56	0	24.26	-	
13	REMOVE & CONSTRUCT CONCRETE CREST STONE	1	LS	9000	9000	7797.64	7797.64	2190.89	2190.89	
14	BID BOND (Y OR N)			Y		Y				
15	ADDENDUM #1 (Y OR N)			Y		Y				
				TOTAL	85,110		70,331.33		43,530.64	



CH2M HILL
222 South 15th Street
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July 6, 2016

Mr. Martin Cleveland
Construction Engineer
Papio-Missouri River Natural Resources District
8901 South 154th Street
Omaha, Nebraska 68138

Subject: Whitted Creek Refinement Project – Bid Proposal Recommendation

Dear Mr. Cleveland:

The two bid proposals received from Niewohner and Valley Corporation associated with the Whitted Creek Refinement Project were both greater the Engineers estimate of \$43,531 (Niewohner Construction - \$85,110; Valley Corporation - \$70,331). The disparity in the bid proposals compared to the engineer's estimate appear to be associated to several factors including the small scale of the project, elevated risk of doing work in a perennial stream and controlling flows, and the current construction market. These factors exist when estimating costs for any project, however can be magnified with smaller construction projects.

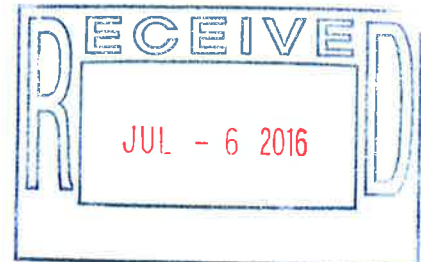
Upon review of the bid proposals and discussions with local contractors it is my recommendation that Valley Corporation be awarded the Whitted Creek Refinement Project. This recommendation is based upon on the fact that the proposed project includes maintenance and repair along previously restored Whitted Creek in which the NRD has invested time and money to stabilize, and timely repair of these proposed areas, along with monitoring of the creek, can prevent more costly repairs in the future. It is acknowledged that the project could be delayed to potentially save costs, however given the current construction market, scale of the project, and risk associated with doing stream work the proposed bids appear to be fair market value.

We at CH2M are excited about the opportunity to continue to contribute to the Whitted Creek Project. Should you have questions regarding the details of our recommendation, please do not hesitate to contact me at 402-609-7538 or Emily Holtzclaw at 402-609-7510.

Sincerely,

Nick Sutko, P.E.

Attachment – Summary of Bid Proposals





Whitted Creek

Refinement Areas

Tregaron Golf Course

Papio Creek

Hwy. 75

Capehart Rd.

Kennedy Fwy

Whitted Creek Refinement Project Location Map

Google earth

41°06'48.17" N 95°56'14.45" W elev 985 ft eye alt 7270 ft

TOWNE CENTRE



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Refinement Area 1



Refinement Area 3



Refinement Area 4

FLOW

CONSTRUCTION NOTES

1. ACCESS TO REFINEMENT AREAS WILL BE PROVIDED BY THE LEVEE ROAD FROM SCARBOROUGH ROAD.

2. ALL DISTURBED AREAS SHALL BE SEEDED AND STABILIZED AS DIRECTED BY CDM.

3. ALL DISTURBED AREAS SHALL BE SEEDING AND STABILIZED ON A DAILY BASIS.

4. THE CONTRACTOR IS ADVISED THAT THE STOCKPILING AND USE OF MATERIAL AND/OR EQUIPMENT WITHIN THE POTENTIAL OBSERVATIONS TO THE FLOW OF THE STREAM. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT WORKING IN A MANNER THAT MINIMIZES THE REDUCTION IN CHANNEL CAPACITY AT ALL TIMES. THE CONTRACTOR IS ADVISED THAT THE STORAGE OF FUELS, CHEMICALS, TRASH/DEBRIS, CONSTRUCTION MATERIAL, VEHICLES, AND EQUIPMENT SHALL BE PROHIBITED WITHIN THE CHANNEL. ALL MATERIALS AND EQUIPMENT SHALL BE STORED OVERNIGHT WITHIN THE CREEK CHANNEL.

APPROXIMATE FLOWS FOR WHITTED CREEK

BASE FLOW	12 CFS
1 YEAR	200 CFS
5 YEAR	250 CFS
10 YEAR	300 CFS
50 YEAR	400 CFS
100 YEAR	500 CFS

NOTE: ALL FLOWS ARE ESTIMATED AND ARE INTENDED FOR INFORMATIONAL PURPOSES ONLY. AS ORDER OF MAGNITUDE VALUES, ACTUAL FLOWS MAY VARY FROM THESE APPROXIMATE FLOW VALUES.



BID DOCUMENTS FOR CONSTRUCTION OF WHITTED CREEK REFINEMENT PROJECT

VOLUME 2 OF 2 - DRAWINGS

PREPARED FOR PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT



Soil Riprap Bank Stabilization

Soil can be removed and utilized in soil riprap as approved and directed by CM

Existing Rock Riffle to be Protected

Refinement Area 1 looking downstream (southeast)



Refinement Area 3 looking east (downstream)

Refinement Area 3 looking upstream (northwest)

Cross Vane Rock Infill
Grouted Type C Riprap

Soil Riprap Bank
Stabilization

Refinement Area 4

Soil Riprap Bank
Stabilization

Existing Cross Vane To Be Protected

Cross Vane Rock Infill
Grouted Type C Riprap

Remove Existing Crest
Stones and Construct
Concrete Cap



Refinement Area 4 looking southwest