December 1, 2021

Mr. Nick Williams, PE, CFM
Director of Public Works
City of Stephenville
298 W. Washington St.
Stephenville, TX 76401

Subject: Airport Pump Station Expansion Project – Bid Award Recommendation

Dear Mr. Williams:

Bids were received Monday, November 22, 2021, and publicly read for the Airport Pump Station Expansion Project. Two general contractors submitted bid proposals with each contractor providing a bid bond. The Provenance Engineering team has reviewed the two bids for conformance and completeness. The detailed bid tabulation is enclosed in Attachment A.

The submitted bid proposal includes a new 1 MG Ground Storage Tank and a new pump station for both the new and existing ground storage tanks. During the design phase, additional infrastructure needs were identified and included in the scope of the project design. These items are as follows:

1. Initial phase of the future pump station including suction piping header, suction laterals, three valve vaults, three pump cans, spare conduits, and the pump station foundation pad
   a. This work is critical to the current project as the new tank would be undermined and destabilized if excavated and constructed after tank installation. At greater than 20-ft. depth, the work would be cost prohibitive if performed post tank/station construction.
2. New dewatering system, new chemical injection structure, new continuous chlorine monitoring system, new overflow structure, coating of existing tank roof, new piping within the existing tank
   a. The site evaluation for design includes a geotechnical report that identified site conditions requiring the dewatering system. The chemical injection improvements are to prevent corrosion and protect sensitive equipment. The continuous chlorine monitoring is state-mandated in order to achieve 4-log treatment status and also assists in TCEQ reporting requirements. Alternative bid items were designed for the overflow structure, the existing tank piping replacement, as well as the roof coating. These three items can be addressed at later dates with minimal impact to the site.
3. Replacement of existing assets including the raw water flow meter, finished water flow meter and vault, finished water connection to main, and piping to retain one of the existing pumps to serve as a redundant backup to maintain operations during the work
   a. The metering items are critical for accurate flow reading measurements. The piping improvements are critical for the current project due to the depth of the excavation immediately adjacent to the structures.

The Engineer's opinion of probable construction cost submitted by Provenance Engineering during the Final Design phase was $3,023,000.00 with contingencies for the base bid. Red River Construction Company submitted the low bid with a total base bid price of $3,625,061.50. Six additional bid items were included as alternative bid items in the bid package. Provenance Engineering recommends the city accept only Bid Alternative Item No. 13 for a cost of $172,000. Alternative Item No. 13 provides outlet piping connecting the existing tank directly to the pump station allowing for full redundant and independent functionality of both tanks with the pump station. Additionally, this work will also ensure the distribution operations are maintained during the construction. The total project cost to the city would be $3,797,061.50.

Provenance Engineering spoke with Red River Construction Company's owner, Dean Porter, after the bid submission to discuss the cost escalation between the OPCC and the bid. Mr. Porter mentioned three factors contributing to the increase in cost: 1) the increased materials cost due to the accelerated demand for materials and the resulting market conditions significantly increased the bid for yard piping. 2) an increase in excavation cost due to Red River's proposed plan to implement a sheeting and shoring system. 3) the electrical and instrumentation sub-contractor's bids were three times what Mr. Porter expected.

We recommend proceeding with award and construction to avoid additional cost increases due to increased inflationary trends and pressure from an increasingly busy construction marketplace. Should the city proceed, we will have a meeting with city staff and Red River Construction Company to evaluate potential value engineering opportunities before beginning construction on the project.

Red River Construction Company's bid packets are attached in Attachment B. Provenance Engineering conducted phone interviews with various references. Based on our team's discussions, Red River Construction Company's work performance has been favorable on previous projects. It is our recommendation the City of Stephenville enter into contract with Red River Construction Company to perform the Airport Pump Station Expansion project. Please contact me if you have any questions.

Sincerely,

Kent Riker, P.E.
President
Provenance Engineering LLC

Enclosures

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Bid Opening: November 22, 2021, at 2:00 p.m.

Item No.	Item Description	Est. Qnty	Unit	Unit Price	Bid Amount	
					Red River Construction Co.	Fort Worth Civil
BASE BID ITEMS						
1	Schedule A – Mobilization	1	L.S.	N.A.	$ 147,700.00	$ 135,155.00
2	Schedule B – Sitework	1	L.S.	N.A.	$ 60,000.00	$ 235,688.00
3	Schedule C – Demolition	1	L.S.	N.A.	$ 21,000.00	$ 47,300.00
4	Schedule D – Yard Piping	1	L.S.	N.A.	$ 512,000.00	$1,140,967.00
5	Schedule E – Excavation	1	L.S.	N.A.	$ 570,000.00	$ 336,888.00
6	Schedule F – New Tank	1	L.S.	N.A.	$1,200,000.00	$1,371,973.00
7	Schedule G – New Pump Station	1	L.S.	N.A.	$ 623,000.00	$ 455,927.00
8	Schedule H – Chlorine Analyzer at Airport PS	1	L.S.	N.A.	$ 40,000.00	$ 16,900.00
9	Schedule I – Electrical and Instrumentation and Controls	1	L.S.	N.A.	$ 300,000.00	$ 309,000.00
10	Schedule J – All Other Work	1	L.S.	N.A.	$ 132,000.00	$ 27,000.00
11	Schedule K – Pump Control Valves Cash Allowance (CLA-VAL)	1	L.S.		$ 19,361.50	$ 19,361.50
				TOTAL BASE BID	$3,625,061.50	$4,096,159.50
ALTERNATIVE BID ITEMS						
12	Schedule L - Modifications to Existing Tank (Overflow, Stairs, and Appurtenances)	1	L.S	N.A.	$ 207,000.00	$ 150,000.00
13	Schedule M - Modifications to Existing Tank (New Outlet Connection)	1	L.S.	N.A.	$ 172,000.00	$ 135,000.00
14	Schedule N - New Inlet Piping inside New Tank and Existing Tank	1	L.S.	N.A.	$ 158,000.00	$ 152,400.00
15	Schedule O - Pump Control Valve Hot Box	1	L.S.	N.A.	$ 40,000.00	$ 42,440.00
16	Schedule P1 - Rehabilitation of Existing Tank (Cementitious Coating)	1	L.S.	N.A.	$ 60,000.00	$ 64,700.00
17	Schedule P2 - Rehabilitation of Existing Tank (Elastomeric Coating)	1	L.S.	N.A.	$ 155,000.00	$ 165,985.00
				TOTAL ALTERNATIVE BID	$ 637,000.00	$ 544,540.00
				TOTAL BASE BID PLUS ADDITIVE ALTERNATIVES	$4,357,061.50	$4,741,984.50