

Hardin County Water District No. 1

Serving Radcliff and Hardin County for Over 60 Years

1400 Rogersville Road
Radcliff, KY. 40160

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MAY 16 2019

PUBLIC SERVICE
COMMISSION

May 16, 2019

Hon. Gwen Pinson
Executive Director - Kentucky Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40620-0615

**SUBJECT: Filing of Supplement to Response to Data Request No. 1
Case 2019 - 00067**


Dear Director Pinson,

Enclosed please find an original and ten copies of a supplement to the pre-filed testimony that was filed with your office on May 8, 2019.

We feel like the enclosed information will answer all staff questions in regards to question 8e of Data Request 1 for the above mentioned case.

If you have any questions, please do not hesitate to call me or our attorney, Mr. David Wilson II (Phone: 270-351-4404).

Sincerely,



Stephen M. Hogan, General Manager


Cf; Mr. David Wilson II, HCWD1 Attorney

VERIFICATION

The undersigned, Mr. Stephen M. Hogan, General Manager of the Hardin County Water District No. 1, hereby verifies that he has personal knowledge of the matters set forth in filed letter dated May 16, 2019, to PSC Case 2019-00067, and that he is duly designated by the Board of Commissioners of the Hardin County Water District No. 1 to sign and submit this information its behalf.


Hardin County Water District No. 1

By:


Stephen M. Hogan, General Manager

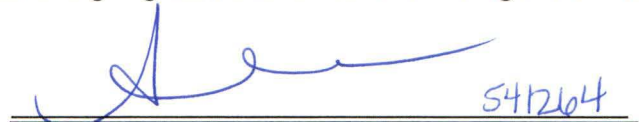
CERTIFICATION

This is to certify that a true and correct copy of the foregoing was delivered on or about the 16th day of May, 2019 to Ms. Gwen Pinson, Executive Director, Kentucky Public Service Commission, 211 Sower Boulevard, Frankfort, KY. 40601-8204.


Mr. David T. Wilson II, ESQ.
Attorney for Hardin County Water District No. 1

STATE OF KENTUCKY
COUNTY OF HARDIN

I, the undersigned, a Notary Public, do hereby certify that on this 16th day of May, 2019, personally appeared before me, Stephen M. Hogan and David T. Wilson, II, who, being by me first sworn subscribed to and acknowledged that they both represent the Hardin County Water District No. 1, a Kentucky Corporation, that they have signed the foregoing document as General Manager and Attorney of the Corporation.


541264
NOTARY PUBLIC, STATE OF KENTUCKY

My Commission Expires; October 12, 2019

- 8e. Hardin District No. 1 responded to question 8(c) by indicating that the estimates in the application, contained in Table 2 of Tab 3 of the application, are no longer valid. Hardin District No. 1 also produced a letter in response to Question No. 11 indicating an approximately \$900,000 increase in the estimated costs in Table 2 and additional increases if steel tariffs, which were being discussed at the time, went into effect.

Question 8(e) asks if Hardin District No. 1 or its engineers modified the estimate costs in Table 2 of Tab 3 and requests the updated cost estimates. However, Hardin District No. 1 responded to that question by stating that the engineers did update the estimates in Table 2 of Tab 3 and that the update resulted in the pricing shown in Table 2 of Tab 3. I [Ben Bellamy] thought that response might be an error or that an updated version of Table 2 of Tab 3 was supposed to be attached, since Hardin District No. 1 refers back to the same table about which the question asks.

The question was attempting to obtain the most recent, best estimates for the cost of the projects, whether based on an engineering report/opinion or a general contractors recent bid, if any. We probably only need that information for the two storage tanks and the improvements to the [Water Treatment Plant] WTP. If you could formally supplement Hardin District No. 1's response to Commission Staff's Request with that information, it would likely assist in evaluating your application in a timely manner.

ANSWER 1: See the update below for the two primary projects (elevated tanks and Muldraugh WTP improvements).

Elevated Storage Tanks. Original opinion of probable cost = \$10,190,000. Updated opinion of probable cost (based on apparent low bidder from May 1, 2019) = \$5,555,000. See Exhibits 3 and 4 behind this answer.

This reduction in anticipated project cost was expected during the initial proposal. At the time of the proposal, the construction market was volatile and there was uncertainty in steel prices. Similarly, we assumed that the tanks may need to be constructed in parallel (both at the same time) to be more conservative in case the schedule warranted that. Because we expect to construct one after the other with the same construction crew, significant efficiencies and savings are realized. We anticipated that there were several

potential projects that may be required as part of the Muldraugh WTP Improvements that were unforeseen at the time of the proposal. The plan was to utilize any potential savings realized on the elevated storage tanks to improve the reliability and treatability of the Muldraugh WTP (see below).

Muldraugh WTP Improvements. Original opinion of probable cost = \$4,845,000. Current opinion of probable cost = \$8,000,000 to \$13,000,000.

At the time of the original proposal, a detailed evaluation of the Muldraugh WTP was unavailable. The WTP was rated for 7 MGD and our proposal indicated that Muldraugh WTP should be improved to reliably meet that capacity such that Central WTP can be decommissioned while limiting purchase water requirements. The following list is a brief summary of a few of the projects that were not initially identified, but through a detailed evaluation of the WTP are either necessary or highly desirable to meet the intent of the project.

- Additional carbon treatment. It was expected that geosmin problems would be able to be solved at the source in the well-field pipeline. This has not been the case and the feed rate for carbon necessitates additional facilities (carbon slurry system) to feed powder activated carbon and/or provide two-stage carbon treatment via granular activated carbon filter media.
- Hydraulic improvements. The sedimentation basin requires additional finger-troughs to achieve adequate weir length to meet the 7 MGD capacity. The hydraulic grade line to operate both treatment trains together require a pipe bore under the small clarifier and a splitter box to manage flows through both trains simultaneously.
- Structural improvements. Upon a detailed structural review, several of the facilities in the main administration/filter building require structural improvements.
- High service pumps. Based on the operating conditions and high variability in demand (largely dependent on

troop levels at Fort Knox), three high-service pumps (which is what is currently in the building) are unable to meet the low flow and high flow operating demands efficiently. As a result, a fourth pump is required, which also includes significant additional costs in piping, valves, and fittings in the high-service building.

- Clearwell improvements. Baffles in the clearwell were added to meet chlorine contact time requirements.
- New filter bottoms. Filter bottoms were determined to be at the end of their useful life and required replacement. Various others. Several other items such as isolation valves, sludge pumps, aeration trays, miscellaneous equipment, etc. were also identified for installation or replacement to provide desired redundancy and reliability to the WTP.

With tank bids now in hand, upon completion of the Request for Equitable Adjustment with DLA due to the project delays, a detailed cash flow model will be established for the implementation of the capital improvements program. During the negotiation of the initial contract modification (number 30) that instituted the Revised ISDC Projects, detailed cash flow modeling was performed at DLA's request to identify HCWD's ability to fund the capital improvements program as proposed. At that time, based on available funding, HCWD committed to spend available funding (less the one to two-million-dollar operating reserve) in their Fort Knox Water Fund to perform desired improvements at Muldraugh WTP. That is still HCWD's intention. As a result, upon completion of the cash flow analyses and coordination with DLA, HCWD and Stantec will prioritize project elements and develop appropriate bid alternates/additions to construct the project within the budget available.

WITNESS:

Mr. Bret Lavey, P.E., ENV SP, Stantec Consulting Services, Inc.

HARDIN COUNTY WATER DISTRICT NO. 1
Fort Knox Elevated Storage Tanks and Main Improvements
Bid Opening Date: 5/1/2019

Item No.	Description	Unit	Engineer's Estimated Quantity ⁽¹⁾	Caldwell Tanks			CB&I (Non-responsive bid)			Landmark			Phoenix Fabricators		
				Bidder's Quantity	Bid Unit Price [\$]	Bid Price [\$]	Bidder's Quantity	Bid Unit Price [\$]	Bid Price [\$]	Bidder's Quantity	Bid Unit Price [\$]	Bid Price [\$]	Bidder's Quantity	Bid Unit Price [\$]	Bid Price [\$]
1	GENERAL CONDITIONS, PAYMENT, AND PERFORMANCE BONDS	LS	1	1	\$ 300,000	\$ 300,000	1	\$ 82,000	\$ 82,000	1	\$ 120,000	\$ 120,000	1	\$ 80,000	\$ 80,000
2	MOBILIZATION / DEMOBILIZATION	LS	1	1	\$ 120,000	\$ 120,000	1	\$ 210,000	\$ 210,000	1	\$ 100,000	\$ 100,000	1	\$ 80,000	\$ 80,000
3	CONSTRUCTION STAKING	LS	1	1	\$ 8,000	\$ 8,000	1	\$ 3,000	\$ 3,000	1	\$ 10,000	\$ 10,000	1	\$ 8,000	\$ 8,000
4	MAINTENANCE OF TRAFFIC	LS	1	1	\$ 7,500	\$ 7,500	1	\$ 10,000	\$ 10,000	1	\$ 10,000	\$ 10,000	1	\$ 8,000	\$ 8,000
FRAZIER TANK SITE															
SITE PREPARATION															
5	CLEARING AND GRUBBING (INCLUDES STRIPPING AND STOCKPILING TOPSOIL)	LS	1	1	\$ 11,000	\$ 11,000	1	\$ 7,000	\$ 7,000	1	\$ 25,000	\$ 25,000	1	\$ 15,000	\$ 15,000
6	REMOVE AND REPLACE EXISTING 8" CORRUGATED PLASTIC PIPE WITH 8" DUCTILE IRON PIPE	LS	1	1	\$ 1,200	\$ 1,200	1	\$ 1,500	\$ 1,500	1	\$ 2,000	\$ 2,000	1	\$ 1,000	\$ 1,000
7	REMOVE EXISTING 12" CORRUGATED METAL PIPE	LS	1	1	\$ 2,000	\$ 2,000	1	\$ 1,000	\$ 1,000	1	\$ 2,000	\$ 2,000	1	\$ 2,000	\$ 2,000
ELEVATED STORAGE TANK															
8	1.5 MG COMPOSITE ELEVATED TANK (INCLUDES FOUNDATION, INSTRUMENTATION, ELECTRICAL ⁽²⁾ , PIPING, VALVES, MECHANICAL COMPONENTS, AND APPURTENANCES INSTALLED COMPLETE)	LS	1	1	\$ 2,226,205	\$ 2,226,205	1	\$ 2,853,320	\$ 2,853,320	1	\$ 2,991,000	\$ 2,991,000	1	\$ 3,171,265	\$ 3,171,265
WATER MAIN															
9	16" DUCTILE IRON PIPE OUTSIDE ROADWAY (INCLUDES TRENCHING AND BACKFILLING)	LF	331	331	\$ 172	\$ 56,932	331	\$ 180	\$ 59,580	331	\$ 175	\$ 57,925	331	\$ 180	\$ 59,580
10	16" DUCTILE IRON PIPE IN ROADWAY (INCLUDES TRENCHING AND BACKFILLING)	LF	25	25	\$ 213	\$ 5,325	25	\$ 375	\$ 9,375	25	\$ 215	\$ 5,375	25	\$ 220	\$ 5,500
11	12" DUCTILE IRON PIPE (INCLUDES TRENCHING AND BACKFILLING)	LF	20	20	\$ 107	\$ 2,140	20	\$ 100	\$ 2,000	20	\$ 110	\$ 2,200	20	\$ 120	\$ 2,400
12	8" DUCTILE IRON PIPE (INCLUDES TRENCHING AND BACKFILLING)	LF	20	20	\$ 76	\$ 1,520	20	\$ 90	\$ 1,800	20	\$ 80	\$ 1,600	20	\$ 80	\$ 1,600
13	6" DUCTILE IRON PIPE (INCLUDES TRENCHING AND BACKFILLING)	LF	10	10	\$ 71	\$ 710	10	\$ 80	\$ 800	10	\$ 70	\$ 700	10	\$ 75	\$ 750
14	2" HIGH-DENSITY POLYETHYLENE (HDPE) PIPE (INCLUDES TAPPING SADDLE, TRENCHING, AND BACKFILLING)	LF	61	61	\$ 81	\$ 4,941	61	\$ 30	\$ 1,830	61	\$ 80	\$ 4,880	61	\$ 85	\$ 5,185
15	12" COUPLING (CONNECTION TO EXISTING 12" WATER MAIN)	EA	2	2	\$ 1,060	\$ 2,120	2	\$ 3,500	\$ 7,000	2	\$ 1,000	\$ 2,000	2	\$ 1,100	\$ 2,200
16	8" COUPLING (CONNECTION TO EXISTING 8" WATER MAIN)	EA	2	2	\$ 827	\$ 1,654	2	\$ 3,000	\$ 6,000	2	\$ 850	\$ 1,700	2	\$ 900	\$ 1,800
17	16"x12" REDUCER	EA	2	2	\$ 1,208	\$ 2,416	2	\$ 1,200	\$ 2,400	2	\$ 1,250	\$ 2,500	2	\$ 1,300	\$ 2,600
18	16"x8" REDUCER	EA	2	2	\$ 1,172	\$ 2,344	2	\$ 1,200	\$ 2,400	2	\$ 1,200	\$ 2,400	2	\$ 1,200	\$ 2,400
19	16"x16"x16" TEE	EA	3	3	\$ 1,941	\$ 5,823	3	\$ 1,700	\$ 5,100	3	\$ 2,000	\$ 6,000	3	\$ 2,000	\$ 6,000
20	16"x16"x6" TEE	EA	1	1	\$ 1,430	\$ 1,430	1	\$ 1,600	\$ 1,600	1	\$ 1,500	\$ 1,500	1	\$ 1,500	\$ 1,500

HARDIN COUNTY WATER DISTRICT NO. 1
Fort Knox Elevated Storage Tanks and Main Improvements
Bid Opening Date: 5/1/2019

Item No.	Description	Unit	Engineer's Estimated Quantity ⁽¹⁾	Caldwell Tanks			CB&I (Non-responsive bid)			Landmark			Phoenix Fabricators		
				Bidder's Quantity	Bid Unit Price [\$]	Bid Price [\$]	Bidder's Quantity	Bid Unit Price [\$]	Bid Price [\$]	Bidder's Quantity	Bid Unit Price [\$]	Bid Price [\$]	Bidder's Quantity	Bid Unit Price [\$]	Bid Price [\$]
21	16" 45-DEGREE BEND FITTING	EA	5	5	\$ 1,408	\$ 7,040	5	\$ 1,400	\$ 7,000	5	\$ 1,400	\$ 7,000	5	\$ 1,500	\$ 7,500
22	16" 11.25-DEGREE BEND FITTING	EA	2	2	\$ 1,413	\$ 2,826	2	\$ 1,500	\$ 3,000	2	\$ 1,400	\$ 2,800	2	\$ 1,500	\$ 3,000
23	16" GATE VALVE ASSEMBLY	EA	3	3	\$ 8,957	\$ 26,871	3	\$ 8,500	\$ 25,500	3	\$ 9,000	\$ 27,000	3	\$ 9,000	\$ 27,000
24	12" GATE VALVE ASSEMBLY	EA	2	2	\$ 3,615	\$ 7,230	2	\$ 2,500	\$ 5,000	2	\$ 4,000	\$ 8,000	2	\$ 4,000	\$ 8,000
25	8" GATE VALVE ASSEMBLY	EA	2	2	\$ 2,403	\$ 4,806	2	\$ 2,000	\$ 4,000	2	\$ 2,500	\$ 5,000	2	\$ 2,500	\$ 5,000
26	6" GATE VALVE ASSEMBLY	EA	1	1	\$ 1,991	\$ 1,991	1	\$ 1,400	\$ 1,400	1	\$ 2,000	\$ 2,000	1	\$ 2,000	\$ 2,000
27	YARD HYDRANT (INCLUDES BALL VALVE ASSEMBLY)	EA	1	1	\$ 2,600	\$ 2,600	1	\$ 1,500	\$ 1,500	1	\$ 2,500	\$ 2,500	1	\$ 2,750	\$ 2,750
28	FIRE HYDRANT ASSEMBLY	EA	1	1	\$ 3,500	\$ 3,500	1	\$ 3,000	\$ 3,000	1	\$ 3,500	\$ 3,500	1	\$ 4,000	\$ 4,000
PRECAST CONCRETE															
29	24" REINFORCED CONCRETE PIPE (RCP)	LF	70	70	\$ 100	\$ 7,000	70	\$ 70	\$ 4,900	70	\$ 100	\$ 7,000	70	\$ 120	\$ 8,400
30	12" REINFORCED CONCRETE PIPE (RCP)	LF	30	30	\$ 85	\$ 2,550	30	\$ 60	\$ 1,800	30	\$ 90	\$ 2,700	30	\$ 90	\$ 2,700
31	24" PRECAST HEADWALL	EA	1	1	\$ 1,500	\$ 1,500	1	\$ 2,500	\$ 2,500	1	\$ 1,500	\$ 1,500	1	\$ 1,500	\$ 1,500
32	12" PRECAST HEADWALL	EA	2	2	\$ 1,200	\$ 2,400	2	\$ 2,500	\$ 5,000	2	\$ 1,200	\$ 2,400	2	\$ 1,250	\$ 2,500
33	6-FT DIA. OVERFLOW CATCH BASIN	EA	1	1	\$ 3,500	\$ 3,500	1	\$ 7,500	\$ 7,500	1	\$ 3,500	\$ 3,500	1	\$ 4,000	\$ 4,000
CAST-IN-PLACE CONCRETE															
34	8" CONCRETE PAD	CY	13	13	\$ 650	\$ 8,450	13	\$ 500	\$ 6,500	13	\$ 650	\$ 8,450	13	\$ 700	\$ 9,100
EARTHWORK															
35	CLASS III CHANNEL LINING	CY	50	50	\$ 85	\$ 4,250	50	\$ 100	\$ 5,000	50	\$ 85	\$ 4,250	50	\$ 90	\$ 4,500
36	SITE EXCAVATION, LOAD, AND HAUL EXCESS SOIL TO ESTRADA SITE	CY	740	740	\$ 21	\$ 15,540	740	\$ 25	\$ 18,500	740	\$ 25	\$ 18,500	740	\$ 25	\$ 18,500
37	CRUSHED STONE ACCESS ROAD AND LOT (GRAVEL SURFACING) – INCLUDES EXCAVATION, COMPACTION, FABRIC, COMPLETE)	SY	1600	1600	\$ 19	\$ 30,400	1600	\$ 30	\$ 48,000	1600	\$ 20	\$ 32,000	1600	\$ 20	\$ 32,000
38	GRAVEL SURFACING FOR FUTURE TELECOM BUILDING – INCLUDES GRADING, COMPACTION, AND FABRIC, COMPLETE)	LS	1	1	\$ 600	\$ 600	1	\$ 2,500	\$ 2,500	1	\$ 600	\$ 600	1	\$ 700	\$ 700
39	TOPSOIL PLACEMENT AND FINE GRADING	CY	150	150	\$ 31	\$ 4,650	150	\$ 20	\$ 3,000	150	\$ 40	\$ 6,000	150	\$ 35	\$ 5,250
40	LOAD AND HAUL EXCESS TOPSOIL TO ESTRADA SITE	CY	200	200	\$ 15	\$ 3,000	200	\$ 25	\$ 5,000	200	\$ 20	\$ 4,000	200	\$ 16	\$ 3,200
EROSION PREVENTION AND SEDIMENT CONTROL (EPSC)															
41	TEMPORARY CONSTRUCTION ENTRANCE	LS	1	1	\$ 3,500	\$ 3,500	1	\$ 3,000	\$ 3,000	1	\$ 4,000	\$ 4,000	1	\$ 4,000	\$ 4,000
42	SILT FENCE	LF	150	150	\$ 3	\$ 450	150	\$ 5	\$ 750	150	\$ 3	\$ 450	150	\$ 4	\$ 600
43	STONE BAG CHECK DAM	EA	1	1	\$ 150	\$ 150	1	\$ 800	\$ 800	1	\$ 150	\$ 150	1	\$ 200	\$ 200
44	TEMPORARY CONCRETE WASHOUT	EA	1	1	\$ 2,500	\$ 2,500	1	\$ 3,000	\$ 3,000	1	\$ 3,000	\$ 3,000	1	\$ 3,000	\$ 3,000
SITE RESTORATION AND APPURTENANCES															
45	CHAIN LINK FENCE	LF	466	466	\$ 21	\$ 9,786	466	\$ 35	\$ 16,310	466	\$ 35	\$ 16,310	446	\$ 20	\$ 8,920
46	DOUBLE SWING GATE (20' WIDE)	EA	1	1	\$ 500	\$ 500	1	\$ 2,500	\$ 2,500	1	\$ 1,690	\$ 1,690	1	\$ 500	\$ 500
47	SEED AND MULCH	LS	1	1	\$ 2,600	\$ 2,600	1	\$ 300	\$ 300	1	\$ 2,500	\$ 2,500	1	\$ 2,600	\$ 2,600
48	BOLLARDS	EA	4	4	\$ 100	\$ 400	4	\$ 600	\$ 2,400	4	\$ 1,000	\$ 4,000	4	\$ 1,000	\$ 4,000

HARDIN COUNTY WATER DISTRICT NO. 1
Fort Knox Elevated Storage Tanks and Main Improvements
Bid Opening Date: 5/1/2019

Item No.	Description	Unit	Engineer's Estimated Quantity ⁽¹⁾	Caldwell Tanks			CB&I (Non-responsive bid)			Landmark			Phoenix Fabricators		
				Bidder's Quantity	Bid Unit Price [\$]	Bid Price [\$]	Bidder's Quantity	Bid Unit Price [\$]	Bid Price [\$]	Bidder's Quantity	Bid Unit Price [\$]	Bid Price [\$]	Bidder's Quantity	Bid Unit Price [\$]	Bid Price [\$]
ELECTRICAL COMPONENTS IN YARD ⁽²⁾															
49	UNDERGROUND AND OVERHEAD ELECTRIC (INCLUDES UTILITY POLE, LIGHT FIXTURE, GROUNDING, AND APPURTENANCES)	LS	1	1	\$ 9,900	\$ 9,900	1	\$ 22,000	\$ 22,000	1	\$ 20,000	\$ 20,000	1	\$ 27,000	\$ 27,000
ESTRADA TANK SITE															
SITE PREPARATION															
50	CLEARING AND GRUBBING (INCLUDES STRIPPING AND STOCKPILING TOPSOIL)	LS	1	1	\$ 8,000	\$ 8,000	1	\$ 11,000	\$ 11,000	1	\$ 35,000	\$ 35,000	1	\$ 11,000	\$ 11,000
ELEVATED STORAGE TANK															
51	1.5 MG COMPOSITE ELEVATED TANK (INCLUDES FOUNDATION, INSTRUMENTATION, ELECTRICAL ⁽²⁾ , PIPING, VALVES, MECHANICAL COMPONENTS, AND APPURTENANCES INSTALLED COMPLETE)	LS	1	1	\$ 2,288,900	\$ 2,288,900	1	\$ 2,853,320	\$ 2,853,320	1	\$ 3,092,000	\$ 3,092,000	1	\$ 3,312,295	\$ 3,312,295
WATER MAIN															
52	16" DUCTILE IRON PIPE OUTSIDE ROADWAY (INCLUDES TRENCHING AND BACKFILLING)	LF	391	391	\$ 172	\$ 67,252	391	\$ 180	\$ 70,380	391	\$ 175	\$ 68,425	391	\$ 200	\$ 78,200
53	12" DUCTILE IRON PIPE (INCLUDES TRENCHING AND BACKFILLING)	LF	20	20	\$ 107	\$ 2,140	20	\$ 100	\$ 2,000	20	\$ 110	\$ 2,200	20	\$ 110	\$ 2,200
54	8" DUCTILE IRON PIPE (INCLUDES TRENCHING AND BACKFILLING)	LF	20	20	\$ 76	\$ 1,520	20	\$ 90	\$ 1,800	20	\$ 80	\$ 1,600	20	\$ 80	\$ 1,600
55	6" DUCTILE IRON PIPE (INCLUDES TRENCHING AND BACKFILLING)	LF	102	102	\$ 71	\$ 7,242	102	\$ 80	\$ 8,160	102	\$ 70	\$ 7,140	102	\$ 75	\$ 7,650
56	2" HIGH-DENSITY POLYETHYLENE (HDPE) PIPE (INCLUDES TAPPING SADDLE, TRENCHING, AND BACKFILLING)	LF	37	37	\$ 81	\$ 2,997	37	\$ 30	\$ 1,110	37	\$ 80	\$ 2,960	37	\$ 85	\$ 3,145
57	12" COUPLING (CONNECTION TO EXISTING 12" WATER MAIN)	EA	2	2	\$ 1,060	\$ 2,120	2	\$ 3,500	\$ 7,000	2	\$ 1,000	\$ 2,000	2	\$ 1,200	\$ 2,400
58	8" COUPLING (CONNECTION TO EXISTING 8" WATER MAIN)	EA	2	2	\$ 827	\$ 1,654	2	\$ 3,000	\$ 6,000	2	\$ 850	\$ 1,700	2	\$ 900	\$ 1,800
59	16"x12" REDUCER	EA	2	2	\$ 1,208	\$ 2,416	2	\$ 1,200	\$ 2,400	2	\$ 1,250	\$ 2,500	2	\$ 1,300	\$ 2,600
60	16"x8" REDUCER	EA	2	2	\$ 1,172	\$ 2,344	2	\$ 1,200	\$ 2,400	2	\$ 1,200	\$ 2,400	2	\$ 1,200	\$ 2,400
61	16"x16"x16" TEE	EA	3	3	\$ 1,941	\$ 5,823	3	\$ 1,700	\$ 5,100	3	\$ 2,000	\$ 6,000	3	\$ 2,000	\$ 6,000
62	16"x16"x6" TEE	EA	1	1	\$ 1,530	\$ 1,530	1	\$ 1,600	\$ 1,600	1	\$ 1,500	\$ 1,500	1	\$ 1,500	\$ 1,500
63	16" 45-DEGREE BEND FITTING	EA	3	3	\$ 1,408	\$ 4,224	3	\$ 1,400	\$ 4,200	3	\$ 1,400	\$ 4,200	3	\$ 1,500	\$ 4,500
64	16" GATE VALVE ASSEMBLY	EA	3	3	\$ 8,957	\$ 26,871	3	\$ 8,500	\$ 25,500	3	\$ 9,000	\$ 27,000	3	\$ 9,000	\$ 27,000
65	12" GATE VALVE ASSEMBLY	EA	2	2	\$ 3,615	\$ 7,230	2	\$ 2,500	\$ 5,000	2	\$ 4,000	\$ 8,000	2	\$ 4,000	\$ 8,000
66	8" GATE VALVE ASSEMBLY	EA	2	2	\$ 2,403	\$ 4,806	2	\$ 2,000	\$ 4,000	2	\$ 2,500	\$ 5,000	2	\$ 2,500	\$ 5,000
67	6" GATE VALVE ASSEMBLY	EA	2	2	\$ 1,991	\$ 3,982	2	\$ 1,400	\$ 2,800	2	\$ 2,000	\$ 4,000	2	\$ 2,000	\$ 4,000

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68	YARD HYDRANT (INCLUDES BALL VALVE ASSEMBLY)	EA	1	1	\$ 2,600	\$ 2,600	1	\$ 1,500	\$ 1,500	1	\$ 2,500	\$ 2,500	1	\$ 2,750	\$ 2,750
69	FIRE HYDRANT ASSEMBLY	EA	1	1	\$ 3,500	\$ 3,500	1	\$ 3,000	\$ 3,000	1	\$ 3,500	\$ 3,500	1	\$ 4,000	\$ 4,000
PRECAST CONCRETE															
70	24" REINFORCED CONCRETE PIPE (RCP)	LF	40	40	\$ 100	\$ 4,000	40	\$ 70	\$ 2,800	40	\$ 100	\$ 4,000	40	\$ 120	\$ 4,800
71	24" PRECAST HEADWALL	EA	1	1	\$ 1,500	\$ 1,500	1	\$ 2,500	\$ 2,500	1	\$ 1,500	\$ 1,500	1	\$ 1,500	\$ 1,500
72	6-FT DIA. OVERFLOW CATCH BASIN	EA	1	1	\$ 3,500	\$ 3,500	1	\$ 7,500	\$ 7,500	1	\$ 3,500	\$ 3,500	1	\$ 4,000	\$ 4,000
CAST-IN-PLACE CONCRETE															
73	8" CONCRETE PAD	CY	13	13	\$ 650	\$ 8,450	13	\$ 500	\$ 6,500	13	\$ 650	\$ 8,450	13	\$ 700	\$ 9,100
EARTHWORK															
74	CLASS III CHANNEL LINING	CY	70	70	\$ 85	\$ 5,950	70	\$ 100	\$ 7,000	70	\$ 85	\$ 5,950	70	\$ 90	\$ 6,300
75	SOIL FILL PLACEMENT	CY	740	740	\$ 22	\$ 16,280	740	\$ 6	\$ 4,440	740	\$ 25	\$ 18,500	740	\$ 25	\$ 18,500
76	CRUSHED STONE ACCESS ROAD AND LOT (GRAVEL SURFACING) – INCLUDES EXCAVATION, COMPACTION, FABRIC, COMPLETE)	SY	2200	2200	\$ 19	\$ 41,800	2200	\$ 30	\$ 66,000	2200	\$ 21	\$ 46,200	2200	\$ 20	\$ 44,000
77	GRAVEL SURFACING FOR FUTURE TELECOM BUILDING – INCLUDES GRADING, COMPACTION, AND FABRIC, COMPLETE)	LS	1	1	\$ 600	\$ 600	1	\$ 2,500	\$ 2,500	1	\$ 600	\$ 600	1	\$ 700	\$ 700
78	TOPSOIL PLACEMENT AND FINE GRADING	CY	570	570	\$ 10	\$ 5,700	570	\$ 20	\$ 11,400	570	\$ 20	\$ 11,400	570	\$ 10	\$ 5,700
EROSION PREVENTION AND SEDIMENT CONTROL (EPSC)															
79	TEMPORARY CONSTRUCTION ENTRANCE	LS	1	1	\$ 3,500	\$ 3,500	1	\$ 3,000	\$ 3,000	1	\$ 4,000	\$ 4,000	1	\$ 4,000	\$ 4,000
80	SILT FENCE	LF	370	370	\$ 3	\$ 1,110	370	\$ 5	\$ 1,850	370	\$ 3	\$ 1,110	370	\$ 4	\$ 1,480
81	TEMPORARY CONCRETE WASHOUT	EA	1	1	\$ 2,500	\$ 2,500	1	\$ 3,000	\$ 3,000	1	\$ 3,000	\$ 3,000	1	\$ 3,000	\$ 3,000
SITE RESTORATION AND APPURTENANCES															
82	CHAIN LINK FENCE	LF	429	429	\$ 21	\$ 9,009	429	\$ 35	\$ 15,015	429	\$ 35	\$ 15,015	409	\$ 20	\$ 8,180
83	DOUBLE SWING GATE (20' WIDE)	EA	1	1	\$ 500	\$ 500	1	\$ 2,500	\$ 2,500	1	\$ 1,500	\$ 1,500	1	\$ 500	\$ 500
84	SEED AND MULCH	LS	1	1	\$ 5,000	\$ 5,000	1	\$ 5,000	\$ 5,000	1	\$ 5,070	\$ 5,070	1	\$ 5,000	\$ 5,000
85	BOLLARDS	EA	4	4	\$ 1,000	\$ 4,000	4	\$ 600	\$ 2,400	4	\$ 1,000	\$ 4,000	4	\$ 1,000	\$ 4,000
ELECTRICAL COMPONENTS IN YARD⁽²⁾															
86	UNDERGROUND AND OVERHEAD ELECTRIC (INCLUDES UTILITY POLE, LIGHT FIXTURE, GROUNDING, AND APPURTENANCES)	LS	1	1	\$ 10,700	\$ 10,700	1	\$ 22,000	\$ 22,000	1	\$ 20,000	\$ 20,000	1	\$ 27,000	\$ 27,000

HARDIN COUNTY WATER DISTRICT NO. 1
Fort Knox Elevated Storage Tanks and Main Improvements
Bid Opening Date: 5/1/2019

Item No.	Description	Unit	Engineer's Estimated Quantity ⁽¹⁾	Caldwell Tanks			CB&I (Non-responsive bid)			Landmark			Phoenix Fabricators		
				Bidder's Quantity	Bid Unit Price [\$]	Bid Price [\$]	Bidder's Quantity	Bid Unit Price [\$]	Bid Price [\$]	Bidder's Quantity	Bid Unit Price [\$]	Bid Price [\$]	Bidder's Quantity	Bid Unit Price [\$]	Bid Price [\$]
			BASE BID TOTAL		\$ 5,505,000			\$ 6,663,040			\$ 6,983,000			\$ 7,295,000	
	ADD ALTERNATE BID ITEM NO. 1 – HydroFlon PAINT FOR EXTERIOR SURFACES (SEE SPECIFICATION 13212 FOR DETAILS)	EA	2 TANKS	2	\$ 25,000	\$ 50,000	2	\$ 22,000	\$ 44,000	2	\$ 32,500	\$ 65,000	2	\$ 29,170	\$ 58,340
				ACCEPT											
	ADD ALTERNATE 2 – ARMY LOGO	EA	2 TANKS	2	\$ 7,100	\$ 14,200	2	\$ 25,500	\$ 51,000	2	\$ 10,000	\$ 20,000	2	\$ 5,000	\$ 10,000
				DECLINE											
	ADD ALTERNATE 3 – CLIMATE CONTROL CEILING (refer to Addendum No. 1 for details)	EA	2 TANKS	2	\$ 55,500	\$ 111,000	2	\$ 77,000	\$ 154,000	2	\$ 65,000	\$ 130,000	2	\$ 85,000	\$ 170,000
				DECLINE											
					TOTAL BID WITH ALTERNATE	\$ 5,555,000									

(1) The Engineer's Estimated Quantities are provided for convenience only and shall in no way be tied to Contractor pricing. The Contractor's pricing shall be based upon quantities developed solely by the Contractor.

(2) System integrator will furnish Tank RTUs, antennas, and instruments (tank levels indicator, system pressure transmitter, chlorine analyzer) for Contractor install. System integrator will start up and calibrate. Refer to Plans and Specifications for details.



Stantec Consulting Services Inc.
10509 Timberwood Circle Suite 100
Louisville, KY 40223-5308

May 14, 2019

Mr. Daniel Clifford, Engineering Manager
Hardin County Water District No. 1
1400 Rogersville Road
Radcliff, Kentucky 40160

Reference: Bid Evaluation – Ft. Knox Elevated Storage Tanks

Dear Mr. Clifford,

Stantec has reviewed the contractor bids for the above referenced project. The low, responsive, responsible bidder for the project is Caldwell Tanks, Inc. (Louisville, Kentucky). Their bid is in the amount of \$5,555,000. Stantec recommends that Hardin County Water District No. 1 award the Contract to Caldwell Tanks, Inc.

Regards,

STANTEC CONSULTING SERVICES INC.

Paul Sridhar, PE
Associate
Phone: 502-212-5063
paul.sridhar@stantec.com

Exhibit 4