## GARRARD COUNTY WATER ASSOCIATION

# 2020 WATER SYSTEM IMPROVEMENTS FINAL ENGINEERING REPORT



## GARRARD COUNTY WATER ASSOCIATION

315 Lexington Road
Lancaster, KY 40444

JULY 2022



### GARRARD COUNTY WATER ASSOCIATION FINAL ENGINEERING REPORT WATER SYSTEM IMPROVEMENTS

#### I. GENERAL

The Garrard County Water Association (GCWA) was formed in the late 1960's. The existing system consists of approximately 400 miles of water lines with 6 functioning water storage tanks and 6 booster pump stations that serve approximately 5,533 customers in Garrard County.

#### II. PROJECT PLANNING AREA

#### A. Location

The GCWA is located in Central Kentucky in Garrard County. With the exception of the City of Lancaster, the GCWA serves the majority of Garrard County along with a few customers in Lincoln, Madison and Rockcastle Counties. A map of the GCWA's service area is located at the end of this report.

The topography of Garrard County is a dissected upland with a gently rolling to hilly topography. The topography becomes more rugged near the deep valleys of the Kentucky River, which marks the northern boundary, and the Dix River, which forms the northwestern boundary. A nearly flat, slightly karstic, upland plain occupies part of northwestern Garrard County between U.S. 27 and Herrington Lake. Elsewhere, except locally in the vicinity of Lancaster, flat areas are rare. Local reliefs along the Kentucky River exceed 300 feet. Local reliefs along Herrington Lake are generally between 150 and 200 feet.

#### B. Environmental Resources

The major environmental features in the area are primarily gently rolling to hilly terrain. The gradual undulating terrain is the reason for a relatively few number of water storage tanks and pump stations. Water pressures range from below 30 psi to over 180 psi in sections of the system. Many of the hollows are in floodplains in particular along the Kentucky and Dix River. No known historic sites are noted in the planning area.

#### C. Growth Areas and Population Trends

A quick review of the census information shows a fairly significant increase in the population over the next twenty years. Since the establishment of the GCWA the population of Garrard County has continued to grow, in particular the northern

portion of the county. The water system has had rapid growth over the past 20 years because of numerous line extension projects. The population projections for Garrard County are shown below.

	<u>2010</u>	2020	2030	2040	2050	
Population	16,912	19,122	20,954	22,255	23,123	

#### III. EXISTING FACILITIES

#### A. Location Map

A map of the county showing the extent of the water system is located at the end of this report.

#### B. History

The GCWA system was originally built in the late 1960's. The GCWA purchases the majority of its water from the City of Lancaster. Numerous water line extension projects have been developed over the past 40 years to establish the current GCWA customer base which serves approximately 95% of Garrard County.

#### C. Condition of Facilities

The GCWA system is in good to fair condition and work continues to improve the older, undersized sections of the GCWA.

Several of the original water mains in the GCWA system are class 160 PVC pipe and/or asbestos cement (AC) which has been a problematic source for line breaks and excessive maintenance industry wide. GCWA has experienced numerous line breaks which results in inadequate service to its customers and increased water loss. Several customers experience underserved water supply/pressure due to the excessive line breaks; in particular the northwestern and northern portion of the system which has experienced the most growth and the southern portion of the system which is some of the oldest sections of the system.

#### D. Financial Status

Annual audits will be submitted to Rural Development as required by the RD bond issue. A customer breakdown will be provided in the Summary Addendum.

As with the majority of utilities across the country, the GCWA has seen its operating expenses rise over the past several years. Fuel and health insurance are the expenses that have seen the largest increase. Because the GCWA covers a vast geographic area, the fuel cost has had a tremendous impact on cash flow. Also, the

recent COVID-19 pandemic has caused a substantial amount of lost revenue for the GCWA due to customers not paying their bill.

#### IV. NEED FOR THE PROJECT

#### A. Health and Safety

The proposed project to upgrade the water mains, extend service to unserved customers and provide one (1) new water tank for adequate storage and improved pressure will help to improve overall water quality. Improving storage capacity and hydraulic pressure by installing a new water storage tank to replace an existing undersized water storage tank will improve service to customers in the southeastern portion of Garrard County. Water turnover/water age by eliminating dead ends by looping some of the existing water lines will improve the quality of water for residents in these particular areas and also provide alternatives for service during emergency outages. Also, replacing existing class 160 and/or AC water mains with new class 200/class 250 water mains will drastically reduce the number of water main breaks in these areas, thus improving service to those customers and reducing water loss.

Some of the families living in the project areas currently rely on hauled water and cisterns for their drinking water. Most cisterns do not provide ample quantity and require the families to purchase water several times a month. This exposes some families to poor quality water and limits the amount of water available to them. Several residents in the various areas covered by this project have petitioned the GCWA for water service.

The proposed project will help to improve the overall service from a water quality and reliability standpoint to the GCWA customers.

#### B. System O&M

Upgrading water mains and replacing one water storage tank will reduce the amount of operation and maintenance budget required for the GCWA system. It will also improve the GCWA system by looping portions of the system that currently are dead-end lines.

#### V. ALTERNATIVES CONSIDERED

The only alternative considered for the water main upgrade was to do nothing in which case GCWA would continue to experience excessive maintenance cost to repair the class 160 water lines.

#### VI. PROPOSED ALTERNATIVE

The proposed project is to upgrade the existing class 160 and/or AC water mains that serve the multiple portions of the GCWA system, replace the existing Gabbard water storage tank and extend water lines to serve new customers. Due to recent price increases, inflation, etc. the project was bid with a base bid and alternates. Unless otherwise noted, those listed as "alternates" will not be part of the original project awarded to the contractor. Should contingency funds allow toward the end of construction, those alternate areas will be considered.

The KY 152 (US 27 to Buena Vista Church) and KY 52 portions of the project will replace problematic class 160 PVC water line with class 200 or class 250 water line.

The Eastland Acres portion of the project will replace AC water line with new class 200 water line. Research has shown the health risk of exposure to asbestos cement water line. (ALTERNATE)

The US 27 (Mt Hebron to Canoe Creek), Ky 1131 to Nina Ridge Road and Profit Road Extension portions of the project will help to loop the existing GCWA system and eliminate dead end sections of the water lines. The Profit Road Extension will also connect a section of the water system that has experienced periodic low pressure to a higher pressure zone, thus improving service to customers in this area. (ALTERNATE)

The Narrow Gap, Profit Road, Paper Mill Road, Sugar Creek Road, Bell Lane, Starnes Road (ALTERNATE), Boone Creek (ALTERNATE) and Ham Hill (ALTERNATE) portions of the project will extend water service to approximately 17 new customers.

Lastly, the project will include the addition of a new Gabbard water storage tank that will replace the existing Gabbard tank. The increased tank capacity at a higher elevation will increase hydraulic pressure thus improving service to the customers in this area.

Each of the items listed above will help to improve the overall service from a water quality and reliability standpoint to the GCWA customers.

Hydraulically the project takes advantage of elevations to reduce long-term pumping costs while also improving pressures to underserved areas.

The total project cost is shown on the detailed engineer estimate located at the end of the report. GCWA may also choose to purchase and install automatic radio read meters should contingency funds remain at the end of the project. GCWA has experienced trouble finding personnel to manual read existing meters.

The GCWA will institute a rate increase with this project. The proposed rates and additional financial data was presented in the Summary Addendum to the Preliminary Engineering Report. See attached Rate Summary for rate increase information.

#### VII. PROJECT BUDGET AND FINANCING

The project was advertised for construction bids on June 23, 2022 with a bid opening of July 14, 2022. There were four bidders on Contract 1 – Water Main Improvements and one bidder on Contract 2 - 50,000 Gallon Ground Storage Tank.

The low bidder on Contract 1 – Water Main Improvements was Akins Excavating Company, Inc. of Corbin, Kentucky with a low base bid of \$1,385,810. The total of the base bid plus all the alternates \$2,979,966.00. Kentucky Engineering Group, PLLC has worked with Akins and has found them to be a responsible and responsive bidder and contractor. Therefore, a letter of recommendation was provided to the Association. For purposes of staying within the budge Garrard County Water has elected to award a contract for the base bid plus alternates #7 & #9 in the total amount of \$1,613,030.00

The low bidder on Contract 2 – 50,000 Gallon Ground Storage Tank was Kentucky Glass Lined Tank Systems, Inc. of Lexington, Kentucky with a bid of \$361,972.00. Kentucky Engineering Group, PLLC has worked with Kentucky Glass Lined Tank Systems and has found them to be a responsible and responsive bidder and contractor. Therefore, a letter of recommendation was provided to the Association.

Both Contracts 1 (base bid) and 2 were below the engineers estimate for the project, therefore the Association has added the alternate areas as indicated above that will be included in the contractor's contract.

The funding available for the project consists of the following source:

Rural Development	\$2,500,000
The revised budget for the project is as follows:	
Legal and Administrative	\$10,000
Land and Rights	\$10,000
Preliminary Engineering Report	\$10,000
Environmental	\$10,000
Rate Study	\$10,000
Geotechnical Report	\$5,000
AIS Certification	\$5,000
Basic Engineering Services	\$195,000
Construction Inspection	\$92,000
Construction – Contract 1	\$1,613,030

Construction – Contract 2

\$361,972

Owner Purchased Items Radio Read Meters Contingencies

\$25,000 \$152,998 \$2,500,000

Total

It is the recommendation of Kentucky Engineering Group, PLLC to proceed to the construction phase of this project after submittal of Rural Development post bid documents and proceed with the pre-closing and pre-construction conferences.

#### VIII. PROPOSED PROJECT SCHEDULE

The proposed project schedule is:

- 1. Contract Award/Initiate Construction October 2022
- 2. Substantial Completion July 2022
- 3. Final Completion/Initiation of Operation August 2022

#### **ATTACHMENTS:**

- 1. Rate Summary
- 2. Letter of Recommendations w/ Bid Tabulations Contracts 1 and 2

#### NOTICE OF PROPOSED RATE CHANGE

In accordance with the requirements of the Kentucky Public Service Commission ("PSC") as set out in 807 KAR 5:069, Section 3, notice is hereby given to the customers of the Garrard County Water Association ("Association") of a change in water rates for users of the Association's water system. The changes in water rates are required by the U.S. Department of Agriculture, acting through Rural Development ("RD") in connection with a loan by RD to the Association in the principal amount of \$2,500,000 to be evidenced by the issuance by the Association of its waterworks revenue bonds in such amount, which RD has agreed to purchase provided the Association meets certain conditions of RD, including revising the water rates as set forth below:

#### **Current Monthly Water Rates**

5/8 x <sup>3</sup> / <sub>4</sub> Inch Meter	<u>Month</u>	<u>ly Rate</u>
First 1,000 gallons	\$11.97	Minimum
Next 1,000 gallons	\$6.58	Per 1,000 gallons
Next 1,000 gallons	\$5.37	Per 1,000 gallons
Next 2,000 gallons	\$5.15	Per 1,000 gallons
All Over 5,000 gallons	\$4.82	Per 1,000 gallons
47.134.		
1 Inch Meter	<b>40.4.00</b>	3.61
First 5,000 gallons	\$34.22	
All Over 5,000 gallons	\$4.82	Per 1,000 gallons
1.5 Inch Meter		
First 10,000 gallons	\$58.32	Minimum
All Over 10,000 gallons	\$4.82	Per 1,000 gallons
, 3		, 0
2 Inch Meter		
Fist 25,000 gallons	\$130.62	Minimum
All Over 25,000 gallons	\$4.82	Per 1,000 gallons
-		_
Bulk Rate	\$5.85	Per 1,000 gallons

#### **Proposed Monthly Water Rates**

<u>5/8 x ¾ Inch Meter</u>	New Monthly Rate	<u>Dollar Change</u>	Percent Change
First 1,000 gallons	\$12.86	\$0.89	7.44%
Next 1,000 gallons	\$6.99	\$0.41	6.23%
Next 1,000 gallons	\$5.67	\$0.30	5.59%
Next 2,000 gallons	\$5.43	\$0.28	5.44%
All Over 5,000 gallons	\$5.07	\$0.25	5.19%

1 Inch Meter			
First 5,000 gallons	\$36.37	\$2.15	6.28%
All Over 5,000 gallons	\$5.07	\$0.25	5.19%
1.5 Inch Meter			
First 10,000 gallons	\$61.72	\$3.40	5.83%
All Over 10,000 gallons	\$5.07	\$0.25	5.19%
2 Inch Meter			
Fist 25,000 gallons	\$137.74	\$7.12	5.45%
All Over 25,000 gallons	\$5.07	\$0.25	5.19%
Bulk Rate	\$6.38	\$0.53	9.10%

The proposed monthly water rates shall be effective for water sold after the date of the final approving Order of the PSC, which Order is expected to be issued no later than 30 days of the filing of the Application. Based on a monthly usage of 5,000 gallons, the average bill of a Garrard County Water Association customer would increase \$2.16 from \$34.22 to \$36.38 or 6.31%. The Application for approval of the rate change has been filed with the PSC and may be examined during normal business hours at the following locations: (i) Garrard County Water Association Office, 315 Lexington Street, Lancaster, KY 40444; (ii) PSC, 211 Sower Boulevard, Frankfort, Kentucky, Monday through Friday, 8:00 a.m. to 4:30 p.m., E.T.; and (iii) via the PSC website at <a href="http://psc.ky.gov">http://psc.ky.gov</a>. Comments regarding the Application may be submitted to the PSC via its website or by mail to PSC, P.O. Box 615, Frankfort, Kentucky 40602.

The proposed rates are required under the terms of an agreement between the Association and RD and KRS 278.023 does not grant the PSC any discretionary authority to modify or reject any portion of the agreement between the Association and RD, or to defer the issuance of all necessary orders to implement the terms of the agreement. The RD loan proceeds will be used to finance the costs of the (i) installation of approximately 34,300 linear feet of 3, 4 and 6 inch water main improvements and associated appurtenances; (ii) new 50,000 gallon ground storage tank and appurtenances. Signed: Billy C. Doolin, President, Garrard County Water Association.



July 20, 2022

Sean Smith
Garrard County Water Association
315 Lexington Road
Lancaster, KY 40444

RE: Recommendation of Award

Contract 1 - Water System Improvements

Dear Mr. Smith:

Bids for the above referenced project were opened Thursday July 14, 2022 at 2:00 pm EST. Four bids were received, and the low bidder was Akins Excavation Company, Inc., Corbin, Kentucky with a base bid of \$1,385,810. The total of the base bid plus all the alternates was \$2,979,966. To ensure the project is within budget the base bid plus alternate #7 – Bell Lane and alternate #9 – Sugar Creek is being considered in the amount of \$1,613,030.

Upon review of the bid documents and previous experience with the low Bidder, Kentucky Engineering Group, PLLC recommends to the Garrard County Water Association that Akins Excavation Company, Inc. be awarded the Contract 1 - Water System Improvements project.

A copy of the certified bid tabulation is attached to this letter.

If you have any questions or need additional information, please advise.

Sincerely,

KENTUCKY ENGINEERING GROUP, PLLC

Rvan Carr. P.E.

www.kyengr.com



BID TABULATION
Contract No. 1 - Water Main Improvements
Garrand County Water Association
Lancaster, Kentucky
KEG Project No. 19014
BID OPENING: Thursday, July 14, 2022, 2:00 pm EST

				Akins Exc	Akins Excavating Company, Inc.	y, Inc.	ВОС	BOCA Enterprises	Frede Const	Frederick & May Construction Co. 1016 HWY 172, West Liberty,	Wedd	le Enter	Weddle Enterpirses Inc.
	BASE BID PRICES			182 Busy	182 Busy Ln, Corbin, KY 40701	0701	7435 KY Rt. 32	7435 KY Rt. 321, Hager Hill, KY 41222	S	KY 41472	25 Shane Li	n, Som	Shane Ln, Somerset, KY 42501
					-	1							
Item No.	Description	Ouantity	į										
-	6" SDR 21 PVC Water Main	15,400	5	\$ 32.50	0 \$ 500.500.00	00.00	\$ 3150	Bid Amount	\$ / Unit	Bid Amount	5	-	Bid Amount
2	4" SDR 21 PVC Water Main	12.130	=			9		1	- 1	3 815,200.00	\$ 46.00	<u>ه</u>	708,400.00
۳.	3" SDR 17 PVC Water Main	000	:   :		, ,	70.00		\$ 254,730.00	\$ 49.00	\$ 594,370.00	\$ 35.00	<u>د</u>	424,550.00
		008	<u>.</u>	\$ 18.00	<u>~</u>	14,400.00	\$ 18.00	\$ 14,400.00	\$ 45.00	\$ 36,000.00	\$ 163.00	s 0	130,400.00
	4" Di Water Main Class 350	400	T.	\$ 65.00	· ·	26,000.00	\$ 65.00	\$ 26,000.00	\$ 75.00	\$ 30,000.00	\$ 79.00	0	31.600.00
ru.	Urectional Bored 8" HDPE Pipe with 16" HDPE Casing	350	LF	\$ 278.00	s	97,300.00	\$ 325.00	\$ 113,750.00	\$ 235.00	\$ 82,250.00	\$ 610.00	+-	213 500 00
7	Directional Bored 6" HDPE Pipe for Creek Crossing	450	i.	\$ 140.00	<b>~</b>	63,000.00	\$ 165.00	\$ 74,250.00	\$ 129,00	\$ 58.050.00	1	+	00 00 00 00
œ	Directional Bored 4" HDPE Pipe for Creek Crossing	200	7.	\$ 112.00	S	56,000.00	\$ 70.00	\$ 35,000,00	- 1	- 1		+	00.007,70
6	Highway Bore with 12" Steel Casing Pipe	40	LF	\$ 250.00	<u>~</u>	10,000.00	\$ 325.00		- 1	'	-		72,560.00
10	Highway Bore with 10" Steel Casing Pipe	260	LF.	\$ 250.00	5	65.000.00			- 1			$\rightarrow$	12,000.00
=	Open Cut 10" Steel Casing Pipe	40	1	1		+			- 1	"	\$ 260,00	<u>»</u>	67,600.00
12	Gas Main Crossine w/ 12" DVC Carine bine	1	:   :		,	+			\$ 130.00	\$ 5,200.00	\$ 66.00	° 0	2,640.00
;	The state of the s	20	±	\$ 131.00	<u>م</u>	6,550.00	\$ 155.00	\$ 7,750.00	\$ 130.00	\$ 6,500.00	\$ 100.00	s o	5,000.00
2	6 Gate Valve & Box	rs	EA	\$ 1,865.00	2	9,325.00	\$ 1,400.00	\$ 7,000.00	\$ 1,600.00	\$ 8,000,00	\$ 1,855.00	°	9,275.00
14	4" Gate Valve & Box	.s	EA	\$ 1,540.00	\$	7,700.00	\$ 1,225.00	\$ 6,125,00	\$ 1,300.00	\$ 6,500,00	\$ 1,330.00	~	6.650.00
15	3" Gate Valve & Box	-	EA	\$ 1,455.00	5	1,455.00	\$ 1,150.00	\$ 1,150.00	\$ 1,250.00	\$ 1,250.00	\$ 1,300.00	+-	1.300 00
16	6" Tapping Sleeve and Valve		EA	\$ 3,980.00	\$ 11,940.00	-	\$ 5,500.00	\$ 16,500.00	\$ 3,800.00	\$ 11.400.00		+	12 200 00
17	4" Tapping Sleeve and Valve	4	EA	\$ 3,330.00	\$ 13,320.00	+	\$ 4,900.00	\$ 19,600.00	\$ 3.300.00	13 200 00	- 1	-	00.000.431
110	3" Tapping Sleeve and Valve	-	EA	\$ 2,945.00	~	2,945.00	\$ 4,650.00	\$ 4.650.00	\$ 3,200,00	3 200 00	- 1	+	00.000.00
19	Connection to Existing Water Main (Dry Connection)	6	EA	\$ 7,065.00	63,585.00	+-	\$ 3.050.00	1	\$ 2,000,00	000000	1	+	3,500.00
20	Flushing Hydrant Assembly	-	EA	\$ 7,800.00	~	+	1		6 6 000 00	00'000'01	- 1		1,800.00
21	Blowoff Assembly	80	EA	\$ 2,540.00	\$ 20,320,00	+		2	\$ 3.400.00	27 200 00	000000	,	6,725.00
22	Air Release Valve	2	EA	\$ 835.00	\$ 1,670.08	+-	\$ 1,300.00		\$ 900.00	1 800 00		+	00.004,22
23	Reconnect Existing Meter (Same Side)	59	EA	\$ 625.00	\$ 18,125.00	5.00	855.00	+	1	21 750 00	1	-	1,600.00
24	Reconnect Existing Meter (Opposite Side)	32	EA	\$ 1,410.00	\$ 45,120.00	+-	\$ 1,200.00	+	_ <del> </del> _ =	48.000.00	4	-	121 200 00
25	1.5" Additional Service Line	400	LF	\$ 14.50	\$ 5,800.00	0.00	35.00	14 000 00	37.00	12 800 00	- 1	+-	000000
26	Cut and Plug Existing Water Main	7	EA	\$ 2,700.00	~	+	2.000.00	0000011	1 :	12,800.00	- 1	_	12,000.00
27	New Customer Service Connection	,	1		١,	+		11,000,00	3 1,000.00	00.000,/ <	\$ 1,525.00	<u>س</u>	10,675.00
28	T of the state of		5	1,1/5.00	,	0.00	2,000.00	\$ 12,000.00	\$ 2,200.00	\$ 13,200,00	\$ 1,550.00	S	9,300.00
3	* Magnetic Drive Lurbine Master Meter	3	EA	\$ 25,925.00	\$ 77,775.00	5.00	20,000.00	\$ 60,000.00	\$ 8,900.00	\$ 26,700.00	\$ 7,600.00	۵	22,800.00
	TOTAL CALCULATED BASE BID AMOUNT	MOUNT		v	1 385 810 00	9 00 0		+		+			
	(Not Including Additive Alternate Items)	(tems)				_		90'90c'cac'T	^	1,957,561.00	<b>.</b>		2,048,165.00

	ADDITIVE ALTERNATE NO. 1 RICHMOND RD. LOOP BID PRICES	OP BID PRI	CES	L		r			Frede	Frederick & May			
				Akins Excar	Akins Excavating Company, Inc.	J L	B0C/	BOCA Enterprises	Const	Construction Co.	Wedd	le Ente	Weddle Enterpirses Inc.
I I			:		-							-	
Ŀ	Carpe at more more than a	Quantity	Unit	2	Ä	†	s/u	Bid Amount	\$ / Unit	Bid Amount	\$ / Unit	$\dashv$	Bid Amount
-	a SDR Z1 FVC Water Main	8,650	5	\$ 37.00	\$ 320,050.00	-	\$ 32.50	\$ 281,125.00	\$ 53.00	\$ 458,450.00	\$ 40.00	00	346,000.00
2	3" SDR 21 PVC Water Main	350	T.	\$ 25.00	•	8,750.00	\$ 21.00	\$ 7,350.00	\$ 45.00	\$ 15,750.00	\$ 28.00	90	9,800.00
3	Directional Bored 8" HDPE Pipe for Creek Crossing	410	T.	\$ 163.00	\$ 66,830.00	_	\$ 185.00	\$ 75,850.00	\$ 235.00	\$ 96,350.00	\$ 220.00	+	•
4	12" Steel Casing Open Cut	110	i,	\$ 100.00	\$ 11,006.00	+	\$ 170.00	\$ 18,700.00	\$ 130.00	\$ 14,300.00	\$ 70.00	+-	
ιń	8" Steel Casing Open Cut	30	TT.	\$ 85.00	~	2,550.00	\$ 150.00	\$ 4,500.00	\$ 130.00	~		+	
9	6" Gate Valve & Box	1	EA	\$ 1,865.00	\$ 1,86	1,865.00	\$ 1,400.00	\$ 1,400.00	\$ 1,600.00	\$ 1,600.00	5 1.5	+-	
7	8" Tapping Steeve and Valve	2	EA	\$ 5,230.00	\$ 10,460.00	+	\$ 6,000.00	-	\$ 4.400.00		,   ,	+	
8	6" Tapping Steeve and Valve	-	EA	\$ 3,980.00	_~	3,980.00	\$ 5,500.00		\$ 3,800.00	-	- 1	+-	
6	3" Tapping Sleeve and Valve	-	EA	\$ 2,940.00	<u>م</u>	2,940.00	\$ 4,650.00	\$ 4,650.00	\$ 3,200.00	\$ 3.200.00		+	
10	Blowoff Assembly	2	EA	\$ 2,740.00	\$ 5,48	5,480.00	\$ 3.300.00	\$ 6,600,00	\$ 3,400,00			+	
11	Air Release Valve	-	EA	\$ 840.00		+-			\$ 900.00		3 3,230,00	2 2	6,500.00
12	Reconnect Existing Meter (Same Side)	6	EA	\$ 544.00	\$ 4,89	4,896.00	\$ 855.00	\$ 7,695,00	-	۰ ا		+	٥
13	Reconnect Existing Meter (Opposite Side)	=	EA	1 410 00	\$ 15,510.00	+	\$ 1,200.00	\$ 13.200.00	-	٦ ا	1	+-	`
14	1.5" Additional Service Line	125	LF.	\$ 16.00	\$ 2,00	2,000.00	\$ 35.00	\$ 4,375.00	\$ 32.00		- 1	+-	3.500.00
15	3/4" Additional Service Line	70	3.7	\$ 11.00	\$ 77	770.00	\$ 12,00	\$ 840.00	\$ 25.00	\$ 1,750.00	\$ 20.00	+-	1.400.00
16	Cut and Plug Existing Water Main	2	EA	\$ 1.450.00	\$ 2,900.00	+	\$ 2,000.00	\$ 4,000.00	\$ 1,000.00	\$ 2,000.00	\$ 1,800,00	+-	3 600 00
	TOTAL CALCULATED BID AMOUNT	OUNT				+					- 1	-	
	(Additive Alternate No. 1)	=		<u>~</u>	460,821.00	1.00		449,085.00	s	644,850,00	s		564,175.00
	ADDITIVE ALTERNATE NO. 2 STARNES RD. BID PRICES	ID PRICES		Akins Excav	Akins Excavating Company Inc	1	4202	BOCA Entransier	Freder	Frederick & May	Weddle	c Enter	Weddle Enterpirses Inc.
						$\vdash$			Comstr	Construction Co.		$\vdash$	
Item No.	Description	Quantity	Unit	\$ / Unit	Bid Amount		S / Unit	Bid Amount	C / 11nii	-			
-	4" SDR 21PVC Water Main	1,690	LF	\$ 17.50	\$ 29,575.00	5.00		\$ 40,560.00	\$ 49.00	\$ 82,810.00	\$ 33.00	-	55,778.00
2	Highway Bore with 10" Steel Casing Pipe	40	1.1	\$ 250.00	\$ 10,000.00	0.00	315.00	\$ 12,600.00	\$ 151.51	\$ 6,060.40	\$ 260.00	-	10,400.00
e	4" Tapping Sleeve and Valve	2	EA	\$ 3,330.00	\$ 6,660.00	0.00	4,900.00	00.008,6	\$ 3,300.00	\$ 6,600.00	\$ 3,600.00	0	7,200.00
*	Blowoff Assembly	-	EA	\$ 2,310.00	\$ 2,310.00	0.00	3,300.00	\$ 3,300.00	\$ 3,400.00	\$ 3,400.00	\$ 3,100.00	0	3,100.00
ιn	Reconnect Existing Meter (Same Side)	-	EA	\$ 515,00	\$ 518	515.00 \$	855.00	\$ 855.00	\$ 750.00	\$ 750.00	\$ 900.00	0	900.00
9	Reconnect Existing Meter (Opposite Side)	-	EA	\$ 1,380.00	\$ 1,380.00	00.0	1,200.00	\$ 1,200.00	\$ 1,500.00	\$ 1,500,00	\$ 5,750.00	0	5,750.00
7	Cut and Plug Existing Water Main	2	EA	\$ 1,430.00	\$ 2,860.00	3 00.0	2,000.00	\$ 4,000.00	\$ 1,000.00	\$ 2,000.00	\$ 1,500.00	0	3,000.00
	TOTAL CALCULATED BID AMOUNT	OUNT				-						-	
	(Additive Alternate No. 2)			<u></u>	53,300.00	3.00		72,315.00	s	103,120.40	<u>«</u>		86,120.00

	ADDITIVE ALTERNATE NO. 3 BOONES CREEK BID PRICES	( BID PRICE	2			L		Frede	Frederick & May			
				Akins Excav	Akins Excavating Company, Inc.	1	BOCA Enterprises	Constr	Construction Co.	Weddle	Enterpi	Weddle Enterpirses Inc.
Item No.	-	Quantity	Unit	\$ / Unit	Bid Amount	\$ / Unit	Bid Amount	\$ / Unit	Bid Amount	S / Unit		Rid Amount
-	4" SDR 21 PVC Water Main	4,100	LF	\$ 23.00	\$ 94,300.00	\$ 24.00	98,400.00	\$ 49.00	\$ 200,900.00	\$ 30.00	S	123.000.00
2	Directional Bored 6" HDPE Pipe for Creek Crossing	400	LF	\$ 142.00	\$ 56,800.00	\$ 165.00	\$ 66,000.00	\$ 129.00	\$ 51,600.00	\$ 205.00	+-	82.000.00
	Highway Bore with 10" Steel Casing Pipe	50	i.	\$ 250.00	\$ 12,500.00	\$ 315.00	\$ 15,750,00	\$ 151.51	\$ 7,575.50	\$ 260.00	+-	13.000.00
4	4" Gate Valve & Box	1	EA	\$ 1,540.00	\$ 1,540.00	\$ 1,225.00	\$ 1,225,00	\$ 1,300.00	\$ 1,300.00	-	+	1.325.00
ın	4" Tapping Sleeve and Valve	1	EA	\$ 3,330,00	\$ 3,330.00	\$ 4,900.00	\$ 4,900.00	\$ 3,300.00	\$ 3,300.00	\$ 3,560,00	+-	3.560.00
9	Connection to Existing Water Main (Dry Connection)	1	EA	\$ 1.745.00	\$ 1,745.00	\$ 3,050.00	\$ 3,050.00	\$ 2,000.00	\$ 2,000.00	- 1	+	1 500 00
7	New Customer Service Connection	3	EA		\$ 3,435,00	\$ 2,000.00	\$ 6,000.00	\$ 2,200.00		- 1	+	2,600.00
	TOTAL CALCULATED BID AMOUNT	HOUNT								- 1		3,600.00
	(Additive Alternate No. 3)	3)		<b>~</b>	173,650.00	s	195,325.00	٠,	273,275.50	s		227,985.00
ADDIT	ADDITIVE ALTERNATE NO. 4 US 27 MT HEBRON TO CANOE CREEK BID PRICES	VOE CREEK	BID PRICES	Aikins Excava	Aikins Excavating Company, Inc.	BOCA	BOCA Enterprises	Freder	Frederick & May	Weddle Enterpirses Inc.	Enterpir	Ses Inc.
							4					
Item No.	Description	Quantity	Unit	\$ / Unit	Bid Amount	\$ / Unit	Bid Amount	\$ / Unit	Bid Amount	\$ / Unit		Bid Amount
-	6" SDR 21 PVC Water Main	3,550	LF	\$ 32.00	\$ 113,600.00	\$ 32.50	\$ 115,375.00	\$ 53.00	\$ 188,150.00	\$ 22.00	5	78.100.00
2	Highway Bore with 12" Steel Casing Pipe	60	LF	\$ 250.00	\$ 15,000,00	\$ 325.00	\$ 19,500.00	\$ 164.96	8 9,897.60	\$ 270.00	5	16.200.00
ED .	6" Gate Valve & Box	1	EA	\$ 1,865.00	\$ 1,865.00	\$ 1,400.00	\$ 1,400.00	\$ 1,600.00	\$ 1,600.00	\$ 1,600.00	+-	1.600.00
4	6" Tapping Sleeve and Valve	-	EA	\$ 3,980.00	3,980.00	\$ 5,500.00	\$ 5,500.00	\$ 3,800.00	\$ 3,800.00	\$ 4,100.00		4,100.00
2	Blowoff Assembly	1	EA	\$ 2,765.00	\$ 2,765.00	\$ 3,300.00	\$ 3,300.00	\$ 3,400.00	\$ 3,400.00	\$ 2,800.00	<u>ر</u>	2 800 00
9	Connection to Existing Water Main (Dry Connection)	1	EA	\$ 1,720.00	\$ 1,720,00	\$ 3,050.00	\$ 3,050.00	\$ 2,000.00	1	\$ 1.950.00		1 950 00
	TOTAL CALCULATED BID AMOUNT	IOUNT								- 1		
	(Additive Alternate No. 4)	£		•	138,930.00	s.	148,125.00	s	208,847,60	s		104,750.00
	ADDITIVE ALTERNATE NO. 5 NINA RIDGE BID PRICES	ID PRICES		Akins Excava	Akins Excavating Company, Inc.	BOCA	BOCA Enternrises	Frederi	Frederick & May	Weddle Enterpirses Inc.	interpir	ses Inc.
Item No.	Description	Quantity	Unit	\$ / Unit	Bid	S / Unit	Bid Amount	\$ / Unit	Bid Amount	\$ / Unit	Bid	Bid Amount
-	* SDK Z1 PVC Water Main	3,730	LF	\$ 23.00	\$ 85,790.00	\$ 24.00	\$ 89,520.00	\$ 49.00	\$ 182,770.00	\$ 35.00	s	130,550.00
2	12" Steel Casing Open Cut	200	LF	\$ 97.00	\$ 19,400.00	\$ 170.00	\$ 34,000.00	\$ 130.00	\$ 26,000.00	\$ 240.00	~	48,000.00
	4" Gate Valve & Box	2	EA	\$ 1,540.00	\$ 3,080.00	\$ 1,225.00	\$ 2,450.00	\$ 1,300.00	\$ 2,600.00	\$ 1,325.00	S	2,650.00
4	Connection)	2	EA	\$ 2,215.00	\$ 4,430,00	\$ 3,050.00	\$ 6,100.00	\$ 2,000.00	\$ 4,000.00	\$ 1,500.00	~	3,000.00
	TOTAL CALCULATED BID AMOUNT	OUNT										
	(Additive Alternate No. 5)	6		,	112,700,00	•	132,070,00	s	215,370.00	s		184,200.00
											ĺ	

						4 0000000					
						+-				TOTAL CALCULATED BID AMOUNT	
	1 700 00	16.800 00	\$ 2.800.00	12,000.00	2,000.00	\$ 8,490.00 \$	1 415 00	EA	9	Cut and Plug Existing Water Main	10
	1 000 00	28.500.00			+-	\$ 27,455.00	+	EA	19	Reconnect Existing Meter (Opposite Side)	6
	\$ 500.00	\$ 16,500.00	\$ 750.00	18,810.00	\$ 855.00 \$	\$ 12,760.00	\$ 580.00	EA	22	Reconnect Existing Meter (Same Side)	8
\$ 2,800.00	\$ 2,800.00	\$ 4,000.00	\$ 4,000.00	3,300.00	\$ 3,300.00 \$	\$ 4,050.00	\$ 4,050.00	EA	-	Blowoff Assembly	Т
\$ 28,125.00	\$ 5,625.00	\$ 32,500.00	\$ 6,500.00	34,000.00	\$ 6,800,00	\$ 37,125.00	\$ 7,425.00	EA	ιs	Flushing Hydrant Assembly	
\$ 2,760.00	\$ 2,700.00	\$ 3,000.00	\$ 3,000.00	3,050.00	\$ 3,050.00 \$	\$ 3,005.00	\$ 3,005.00	EA	-	Connection)	
\$ 13,200.00	\$ 4,400.00	\$ 11,400.00	\$ 3,800.00	16,500.00	\$ 5,500.00	\$ 11,940.00	\$ 3,980.00	EA		6 Tapping Steeve and Valve	
\$ 15,000.00	\$ 5,000.00	\$ 14,700.00	\$ 4,900.00	19,500.00	\$ 6,500.00 \$	-	\$ 5,265.00	EA	е .	8" Tapping Steeve and Valve	
\$ 12,000.00	\$ 300.00	\$ 10,240.00	\$ 256.00	15,000.00	\$ 375.00 \$	\$ 10,000.00	\$ 250.00	4	40	Highway Bore with 16" Steel Casing Pipe	$\top$
\$ 135,000.00	\$ 27.00	\$ 275,000.00	\$ 55.00		\$ 40,00 \$	\$ 250,000,00	\$ 50.00	LF	2,000	8" SDR 21 PVC Water Main	$\top$
Rid Amount	S / Unit	Bid Amount	\$ / Unit	Bid Amount	\$ / Unit	Bid Amount	\$ / Unit	Unit	Quantity	Description	Item No.
Weddle Enterpirses Inc.	Weddle En	Frederick & May Construction Co.	Frederi	BOCA Enterprises	BOCAE	Akins Excavating Company, Inc.	Akins Excavati	S	S BID PRICE	ADDITIVE ALTERNATE NO. 8 EASTLAND ACRES BID PRICES	
245,125.00	s	219,075.00	۷۵	139,275.00	s	104,100.00	so.			(Additive Alternate No. 7)	
\$ 3,600.00	\$ 1,200.00	\$ 6,600.90	\$ 2,200.00	6,000.00	\$ 2,000.00	3,405.00	\$ 1,135.00	EA	~ ]	TOTAL CALCINATED RID AMOUNT	7
\$ 2,000.00	\$ 2,000.00	\$ 3,400.00	\$ 3,400.00	3,300,00	$\rightarrow$	2,255.00	\$ 2,255.00	EA	-	Blowoff Assembly	9 1
\$ 3,500,00	\$ 3,500.00	\$ 3,300.00	\$ 3,300.00	4,900.00	\$ 4,900.00	\$ 3,785.00	\$ 3,785.00	EA	-	4" Tapping Sleeve and Valve	$\neg$
\$ 14,000.00	\$ 70.00	\$ 26,000.00	\$ 130.00	\$ 31,000.00	\$ 155.00	\$ 22,000.00	\$ 110.00	5	200	Gas Main Crossing w/ 8" PVC Casing Pipe	$\neg$
	\$ 1,250.00	\$ 1,250.00	\$ 1,250.00	\$ 1,150.00	\$ 1,150.00	\$ 1,455.00	\$ 1,455.00	EA	-	3" Gate Valve& Box	
	\$ 260.00	\$ 6,400.00	\$ 160.00	\$ 12,600.00	\$ 315.00	\$ 10,000.00	\$ 250.00	LF	40	Highway Bore with 8" Steel Casing Pipe	2
\$ 210,375,00	\$ 55.00	\$ 172,125.00	\$ 45.00	\$ 80,325.00	00.	\$ 61,200.00	\$ 16.00	LF	3,825	3" SDR 21 PVC Water Main	-
	1	Did America	1017	Rid Amount	S / Unit	Bid Amount	\$ / Unit	Unit	Quantity	Description	Item No.
Weddle Enterpirses Inc.	Weddle Er	Frederick & May Construction Co.	Freder Constr	BOCA Enterprises	BOCA	Akins Excavating Company, Inc.	Akins Excavati		D PRICES	ADDITIVE ALTERNATE NO. 7 BELL LN. BID PRICES	
121,300.00	s	112,450.00	<u>~</u>	57,280.00	s	46,915.00	^		(9)	(Additive Alternate No. 6)	
	- 1								MOUNT	TOTAL CALCULATED BID AMOUNT	
	\$ 1,200.00	\$ 2,200.00	\$ 2,200.00	\$ 2,000.00	\$ 2,000.00	\$ 1,135.00	\$ 1.135.00	EA	1	New Customer Service Connection	4
	\$ 2,600.00	\$ 3,400,00	\$ 3,400.00	3,300.00	\$ 3,300.00	\$ 2,255.00	\$ 2,255.00	EA	1	Blowoff Assembly	
	1 2	\$ 2,000.00	\$ 2,000.00	\$ 3,050.00	\$ 3,050.00	\$ 1,585.00	\$ 1,585.00	EA	-	Connection to Existing Water Main (Dry Connection)	2
\$ 116.500.00	\$ 50.00	\$ 104,850.00	\$ 45.00	\$ 48,930.00	00	\$ 41,940.00	\$ 18.00	LF	2,330	3" SDR 17 PVC Water Main	-
	0.111	Rid Amount		Bid Amount	\$ / Unit	Bid Amount	\$ / Unit	Unit	Quantity	$\overline{}$	Item No.
Weddle Enterpirses Inc.	Weddle E	Frederick & May Construction Co.	Freder	BOCA Enterprises		ing Company, Inc.	Akins Excavating Company, Inc.		HAMM HILL BID PRICES		

	ADDITIVE ALTERNATE NO. 9 SUGAR CREEK RD. BID PRICES	BID PRICE	پ	3				Fredori	Frederick & Man		
				Akins Excava	Akins Excavating Company, Inc.	B0C	BOCA Enterprises	Constru	Construction Co.	Weddle E	Weddle Enterpirses Inc.
Item No.	Description	Quantity	Unit	\$ / Unit	Bid Amount	\$ / Ilnie	Rid Amount			jei	
1	3" SDR 17 PVC Water Main	1,750	5		9		THOUSE STORY	o null	bid Amount	S/Onit	Bid Amount
	Directional Bored 4" HDPE Pine for Creek			\$ 24.00	,		38,500.00	\$ 45.00	\$ 78,750.00	45.00 \$ 78,750.00 \$ 15.00 \$	\$ 26,250.00
,	Crossing	029	7	\$ 115.00	\$ 74,750.00	\$ 160.00	s	\$ 114.00	\$ 74.100.00	104,000.00 \$ 114.00 \$ 74.100.00 \$ 152.00	00 000 00
	Connection to Existing Water Main (Dry									20.454	,
,	Connection)	-	EA	\$ 1,750.00	1,750.00	\$ 3,050.00	\$ 3,050.00	\$ 2,000.00	\$ 2,000.00	3,050.00 \$ 2,000.00 \$ 2,000.00 \$ 1,000.00 \$	\$ 1.000.00
+	4 Blowoff Assembly	1	EA	6 2250.00	\$ 2,350.00 \$	\$ 3,300,00	9	2 3 400 00	2 400 00	¢ 3.400.00 € 3.400.00 €	
L	Now.			00,000,000					2,700.00	3 4,400.00	2,400.00
,	new customer service connection	7	EA	\$ 1,135,00	\$ 2,270.00 \$	\$ 2,000.00	~	\$ 2,200.00	\$ 4,400.00	4,000.00 \$ 2,200.00 \$ 4,400.00 \$ 1.230.00 \$	2 2 460 00
	TOTAL CALCULATED BID AMOUNT	TNDC									
_	(Additive Alternate No. 9)			49	123,120,00	<b>S</b>	152,850.00	5	162,650.00	so.	130,910,00

	Weddle Enterpirses Inc.			2,048,165,00		1,913,590.00		3,961,755.00
	v		1 957 561 00	OU.TO	10 10	0.30	0.00	1,307,639.50
	Frederick & May	COMMENTAL MENTAL CO.	1 057 5	2010011	2 252 228 50	4,335,4	1 200 0	1,202,8
	BOCA Enterprises		\$ 1.393.350.00		\$ 1,691,285,00		3.084.635.00	District of the Control of the Contr
	Akins Excavating Company, Inc.		1,385,810.00		1,594,156.00		2,979,966,00	
-			Base Bid		Alternates		Base + Alts	

Calculation errors on Bid Form

KENTUCKY ENGINEERING GROUP, PLLC

Ryan Carr, PE



July 20, 2022

Sean Smith Garrard County Water Association 315 Lexington Road Lancaster, KY 40444

RE: Recommendation of Award

Contract 2 – 50,000 Gallon Ground Storage Tank

Dear Mr. Smith:

Bids for the above referenced project were opened Thursday July 14, 2022 at 2:00 pm EST. One bid was received, and the low bidder was Kentucky Glass Lined Tank Systems, Inc., Lexington, Kentucky with a bid of \$361,972.

Upon review of the bid documents and previous experience with the low Bidder, Kentucky Engineering Group, PLLC recommends to the Garrard County Water Association that Kentucky Glass Lined Tank Systems, Inc. be awarded the Contract 2 – 50,000 Gallon Ground Storage Tank project.

A copy of the certified bid tabulation is attached to this letter.

If you have any questions or need additional information, please advise.

Sincerely,

KENTUCKY ENGINEERING GROUP, PLLC

Ryan Carr, P.E.

Email: info @ kyengr.com www.kyengr.com



#### **BID TABULATION**

Contract No. 2 - 50,000 Gallon Ground Storage Tank

Garrard County Water Association

Lancaster, Kentucky

KEG Project No. 19014

BID OPENING: Thursday, July 14, 2022, 2 00 pm EST

				Kentucky Glass L PO Box 13370, Lo	
Item No.	Description	Quantity	Unit	\$ / Unit	Bid Amount
1	New Glass Lined Bolted Steel Ground Storage Tank and Foundation	1	LS	\$ 239,997.00	\$ 239,997.00
2	New Welded Steel Ground Storage Tank and Foundation	1	LS	-	\$ -
3	Site Grading, Access Road, and Restoration	1	LS	\$ 65,037.00	\$ 65,037.00
4	inlet/Outlet Piping, Valves, Vaults, Fittings	1	LS	\$ 39,782.00	\$ 39,782.00
5	Chain Link Fencing and Gate	1	LS	\$ 17,156.00	\$ 17,156.00
6	Total Bid Price			\$ 	361,972.00

Calculation errors on Bid Form

KENTUCKY ENGINEERING GROUP, PLLC

Ryan Carr, PE