

FINAL ENGINEERING REPORT

WATER SYSTEM IMPROVEMENTS AND REPLACEMENTS PROJECT

CONTRACT 12: WATER SYSTEM EXTENSIONS & IMPROVEMENTS
&

CONTRACT 13: "DOG WALK" WATER STORAGE TANK REHABILITATION

For The

WESTERN ROCKCASTLE WATER ASSOCIATION

Project Financed By:

U.S.D.A. RURAL DEVELOPMENT

SEPTEMBER 2023

SEPTEMBER 19, 2023 (REVISION)

 **Monarch Engineering, Inc.**
556 Carlton Drive
Lawrenceburg, KY



September 19, 2023

Mr. Darrell Whitaker, President
Western Rockcastle Water Association
371 New Brodhead Road/PO Box 627
Mt. Vernon, Kentucky 40456

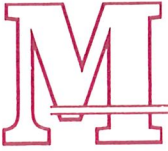
Re: Western Rockcastle Water Association
Contract 12 - Water System Improvements & Replacements
Contract 13 – “Dog Walk” Water Storage Tank Rehabilitation
RUS Loan: \$582,000.00
RUS Grant: \$249,000.00
REVISED Letter of Recommendation

Dear Mr. Whitaker:

On September 12, 2023, bids were received by the Western Rockcastle Water Association for Contract 12 - Water System Improvements & Replacements and Contract 13 – “Dog Walk” Water Storage Tank Rehabilitation. Two bids were submitted on Contract 12 - Water System Improvements & Replacements project and the lowest bid was by Akins Excavating Company, Inc. located in Corbin, Kentucky for an amount of \$458,035.00. Two bids were submitted on Contract 13 – “Dog Walk” Water Storage Tank Rehabilitation project. The lowest bid was submitted by Huffman Tank & Tower, Inc. located in Albany, Kentucky for an amount of \$225,000.00. A copy of the summarized bid tabulation of all bids received is attached along with a final project budget.

The total cost of the lowest bids for the two Contracts that are to be considered, totals an amount of \$683,035.00. Combined with other project associated costs such as an amount of ten percent of the construction cost for project contingencies, along with engineering design and construction inspection fees, and other related costs, the total project cost amounts to \$1,036,543.50, which is summarized on the attached Final Project Budget.

The amount of funds that is currently committed to this project is through a combination of a loan in the amount of \$582,000.00 and a grant in the amount of \$249,000.00 from the U.S. Department of Agriculture through their Rural Development Program.



September 19, 2023
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Comparing the amount of funds budgeted in the expected project budget versus the actual project costs based on the bids that were submitted results in a shortfall of funds in the amount of \$205,543.50, which calculates to an amount of 24.7% more than the revised expected project budget.

In regard to the additional funds needed to cover the shortfall, we are of the opinion that this is due to some economic conditions that exist today that were not in place when the initial estimates were developed in year 2018, results in the need for additional funds as described herein. Please note that one economic issue that had a significant impact on the need for additional funds is the volatile market for steel-based products of which this project has a considerable amount.

Therefore, in summarizing the above, and after discussions with the Association management and current finances, we recommend that the Association consider using their own available funds for the additional funds needed to complete the financing requirements for the total project in order to award a construction contract to Akins Excavating Company, Inc. for their proposal to construct Contract 12 in the amount of \$458,035.00, and to Huffman Tank & Tower, Inc. to construct Contract 13 in the amount of \$225,000.00. In addition, please be advised that we have overseen work successfully performed by each of the two contractors that submitted the lowest bids for each of these Contracts.

This recommendation is contingent upon approval by the Kentucky Public Service Commission and the U.S. Department of Agriculture Rural Development.

Sincerely,

Deron S. Byrne, P.E.
Project Engineer

/dsb

cc: Lesli Gill
USDA Rural Development, London

Julie Anderson
USDA Rural Development, Lexington

BID TABULATIONS
WESTERN ROCKCASTLE WATER ASSOCIATION
CONTRACT 12: WATER LINE IMPROVEMENTS & REPLACEMENTS
ROCKCASTLE COUNTY, KENTUCKY
BID DATE: SEPTEMBER 12, 2023 @ 11:00 A.M.

MONARCH ENGINEERING, INC.
 556 Carlton Drive
 Lawrenceburg, KY 40342
 Phone (502) 839-1310
 Fax (502) 839-1373

ITEM NO.	DESCRIPTION	QUANTITY	Akins Excavating Company, Inc. 182 Busy Lane Corbin, KY 40701		United Pipeline, Inc. 150 Hill Road Tompkinsville, KY 42167	
			UNIT PRICE	TOTAL COST	UNIT PRICE	TOTAL COST
BASE BID CONTRACT						
1	3-Inch PVC SDR 17 Water Line	8,400 LF	\$21.00	\$176,400.00	\$30.00	\$252,000.00
2	3-Inch HDPE DR11 Water Line via Directional Bore	100 LF	160.00	16,000.00	107.00	10,700.00
3	Bore & Case for 3-Inch Water Line	100 LF	240.00	24,000.00	250.00	25,000.00
4	Open Cut & Case for 3-Inch Water Line	30 LF	92.00	2,760.00	78.00	2,340.00
5	Driveway Free Bore for 3-Inch WL	90 LF	75.00	6,750.00	120.00	10,800.00
6	Creek Crossing for 3-Inch Water Line	20 LF	155.00	3,100.00	230.00	4,600.00
7	3-Inch Gate Valve	6 EA	1,630.00	9,780.00	3,000.00	18,000.00
8	3-Inch Blowoff Assembly	8 EA	2,105.00	16,840.00	6,000.00	48,000.00
9	Connection	8 EA	4,185.00	33,480.00	5,400.00	43,200.00
10	New Meter Setting	2 EA	1,625.00	3,250.00	1,900.00	3,800.00
11	Meter Reconnection	18 EA	765.00	13,770.00	1,200.00	21,600.00
12	Service Line Reconnection	2 EA	500.00	1,000.00	900.00	1,800.00
13	3/4-Inch HDPE Service Line Tubing	1,500 LF	14.00	21,000.00	10.00	15,000.00
14	Pressure Reducing Station Replacement	1 LS	38,000.00	38,000.00	41,000.00	41,000.00
15	Pressure Reducing Station Rehabilitation	1 LS	14,230.00	14,230.00	15,000.00	15,000.00
16	Cut & Cap Existing 3-Inch Water Line	1 EA	2,855.00	2,855.00	2,200.00	2,200.00
17	Cut & Cap Existing 1-Inch Water Line	4 EA	575.00	2,300.00	2,100.00	8,400.00
18	Full Width Pavement Replacement	500 LF	118.00	59,000.00	86.00	43,000.00
19	Exploration	40 HR	338.00	13,520.00	400.00	16,000.00
TOTAL BASE BID				\$458,035.00		\$582,440.00

THE ABOVE IS A TRUE AND COMPLETE TABULATION OF BIDS RECEIVED AT 11:00 A.M. LOCAL TIME, TUESDAY, SEPTEMBER 12, 2023 AT THE WESTERN ROCKCASTLE WATER ASSOCIATION.

BY:  Deron S. Byrne
 23127
 LICENSED PROFESSIONAL ENGINEER
 STATE OF KENTUCKY
 Date: 9/13/23

MONARCH ENGINEERING, INC.
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 Lawrenceburg, KY 40342
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BID TABULATIONS
WESTERN ROCKCASTLE WATER ASSOCIATION
CONTRACT 12: WATER LINE IMPROVEMENTS & REPLACEMENTS
ROCKCASTLE COUNTY, KENTUCKY
BID DATE: SEPTEMBER 12, 2023 @ 11:00 A.M.

ITEM NO.	DESCRIPTION	QUANTITY	Akins Excavating Company, Inc.		United Pipeline, Inc.	
			UNIT PRICE	TOTAL COST	UNIT PRICE	TOTAL COST
ALTERNATE NO. 1						
1	6-Inch PVC SDR 17 Water Line	840 LF	\$37.00	\$31,080.00	\$46.00	\$38,640.00
2	3-Inch PVC SDR 17 Water Line	60 LF	16.00	960.00	30.00	1,800.00
3	8-Inch HDPE DR9 Water Line via Directional Bore	200 LF	195.00	39,000.00	260.00	52,000.00
4	Bore & Case for 6-Inch Water Line	80 LF	232.00	18,560.00	320.00	25,600.00
5	Bore & Case for 3-Inch Water Line	30 LF	217.00	6,510.00	242.00	7,260.00
6	6-Inch Gate Valve	5 EA	2,105.00	10,525.00	3,400.00	17,000.00
7	3-Inch Gate Valve	1 EA	1,630.00	1,630.00	3,000.00	3,000.00
8	3-Inch Blowoff Assembly	1 EA	1,995.00	1,995.00	6,000.00	6,000.00
9	Connection	4 EA	5,130.00	20,520.00	5,800.00	23,200.00
10	Cut & Cap Existing 6-Inch Water Line	4 EA	1,605.00	6,420.00	2,400.00	9,600.00
11	Cut & Cap Existing 3-Inch Water Line	1 EA	1,505.00	1,505.00	2,100.00	2,100.00
ALTERNATE NO. 1 BID				\$138,705.00		\$186,200.00

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BID TABULATIONS
WESTERN ROCKCASTLE WATER ASSOCIATION
CONTRACT 13:

"DOG WALK" WATER STORAGE TANK REHABILITATION
ROCKCASTLE COUNTY, KENTUCKY
BID DATE: SEPTEMBER 12, 2023 @ 11:00 A.M. LOCAL TIME

ITEM NO.	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL COST	UNIT PRICE	TOTAL COST
BASE BID Cont'd						
1	1H) Install an 18" diameter corral on the roof of the tank. Relocate all antennas to the corral. Remove the cables from the leg ladder siderails. Bundle the cables and support them to the rubber standoffs		13,000.00		12,800.00	
	1I) Provide an install aluminum climb prevention shield at base of leg ladder		3,000.00		2,500.00	
	1J) Remove the existing 24" diameter steel vent pipe cover. Bolt an aluminum vocer to the existing steel pipe flange		8,500.00		3,700.00	
	1K) Install a new S.S. insect screen at the 6" overflow discharge point		500.00		600.00	
2	Complete Removal & Reapplication of Exterior Coating Systems	1 LS	110,000.00	110,000.00	119,200.00	119,200.00
3	Complete Removal & Reapplication of Interior Coating Systems	1 LS	51,000.00	51,000.00	47,600.00	47,600.00
4	Cleaning/Disinfection/Sampling	1 LS	1,000.00	1,000.00	1,500.00	1,500.00
5	Application of Basic Lettering	1 LS	4,000.00	4,000.00	2,800.00	2,800.00
6	Site Clean-up & Restoration	1 LS	1,000.00	1,000.00	1,000.00	1,000.00
7	Temporary Water Storage Tank	1 LS	16,000.00	16,000.00	29,600.00	29,600.00
TOTAL BASE BID				\$225,000.00		\$235,300.00

Huffman Tank & Tower, Inc.
210 Burkesville Road
Albany, KY 42602

Currens Construction Services, LLC
P.O. Box 492
Harrodsburg, KY 40330

**FINAL PROJECT BUDGET
WESTERN ROCKCASTLE WATER ASSOCIATION
WATER SYSTEM EXTENSIONS & IMPROVEMENTS**

SEPTEMBER 19, 2023 (REVISED)

PROJECT COSTS

CONTRACT 12 - WATER LINE IMPROVEMENTS & REPLACEMENTS	\$458,035.00
CONTRACT 13 - "DOG WALK" TANK REHABILITATION	<u>225,000.00</u>

SUBTOTAL **\$683,035.00**

CONTINGENCY	68,303.50
ENGINEERING DESIGN	58,000.00
CONSTRUCTION INSPECTION	41,000.00
PRELIMINARY ENGINEERING REPORT	10,000.00
ENVIRONMENTAL	7,500.00
EASEMENT ACQUISITION	5,000.00
INTEREST	10,000.00
LEGAL & ADMINISTRATION	15,000.00
CONTRACT 12 - ALTERNATE NO. 1	<u>138,705.00</u>

TOTAL PROJECT COSTS **\$1,036,543.50**

PROJECT FUNDING :

U.S.D.A. RURAL DEVELOPMENT LOAN	\$582,000.00
U.S.D.A. RURAL DEVELOPMENT GRANT	249,000.00
WESTERN ROCKCASTLE WATER ASSOCIATION	<u>205,543.50</u>

TOTAL PROJECT FUNDING : **\$1,036,543.50**