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FINAL ENGINEERING REPORT

for

WOOD CREEK WATER DISTRICT

CONTRACT 1: PITTSBURG LIFT STATION & FORCE MAIN EXTENSIONS

**CONTRACT 2: MATERIALS PURCHASE CONTRACT – INDIVIDUAL
GRINDER PUMPS & PORTABLE GENERATOR**

PREPARED BY:

**KENVIRONS, INC.
452 VERSAILLES ROAD
FRANKFORT, KENTUCKY 40601**

PROJECT NO. 2016087

JANUARY 2018



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1. INTRODUCTION

The Wood Creek Water District made an application for financial assistance to USDA Rural Development for the replacement of the Pittsburg Lift Station, extending force main along Slate Lick Road and in Binder Subdivision, and the purchase of 300 individual grinder pumps and control panels. A Preliminary Engineering Report dated September 2016 describes in detail the scope and need for this project. A Revised Preliminary Engineering Report dated November 2016 was prepared describing additional items to be included in the project if excess funds were available and is included herewith by reference. This project was bid as two distinct contracts; Contract 1: Pittsburg Lift Station & Force Main Extensions and Contract 2: Materials Purchase Contract – Individual Grinder Pumps & Portable Generator.

2. BIDS RECIEVED

Bids were opened and read aloud at 1:30 P.M. on December 19, 2017 at the Wood Creek Water District Office. Seven (7) bids were received for Contract 1: Pittsburg Lift Station & Force Main Extensions. The low bidder was Weddle Enterprises, Inc. of Somerset, KY in the amount of \$374,074.00. The percent difference between the two lowest bids was 5.82%.

Three (3) bids were received for Contract 2: Materials Purchase Contract – Individual Grinder Pumps & Portable Generator. The bid received by MBE Contracting & Supply, LLC of Louisville, KY was rejected due to the absence of a Bid Bond in the bid submittal package, therefore, the bid was unresponsive. The low bidder for Contract 2 was Engineered Design Solutions, Inc. of Hartford, KY in the amount of \$415,000.00. The percent difference between the two valid bids was 37.38%.

Certified bid tabulations were prepared and are contained in Appendix A.

3. PROJECT BUDGET

The Wood Creek Water District has actively pursued funding for the proposed project. Table 1 is a summary of the funding that has been secured.

**TABLE 1
PROJECT FUNDING**

Rural Development (RD) Loan	896,000
Rural Development (RD) Grant	384,000
Total per RD Letter of Conditions	<u>\$1,280,000</u>

Table 2 outlines the project budget as established in the RD Letter of Conditions and revised based upon the bids received.

**TABLE 2
PROJECT BUDGET**

<u>Budget Item</u>	<u>R.D. Letter of Conditions</u>	<u>Revised Cost</u>
Development	\$936,800.00	\$981,074.00*
Land and Rights	5,000.00	0.00
Legal and Administrative	12,500.00	11,400.00
Engineering Fees	84,000.00	72,831.00
Interest	12,000.00	12,000.00
Environmental	20,000.00	20,000.00
Contingencies	93,700.00	89,984.00
Construction Observation	54,000.00	30,711.00
PER	10,000.00	10,000.00
Facilities Plan Upgrade	52,000.00	52,000.00
Total Funding Available	\$1,280,000.00	\$1,280,000.00

* See description below and TABLE 3 for explanation of Development cost.

The difference between the sums of the construction bids (\$789,074) and the engineer's opinion of probable construction cost (\$936,800) is \$147,726 under the initial estimate which equates to a 15.8% difference.

The Revised Preliminary Engineering Report stated that any funding available after the completion of construction would be utilized to purchase additional individual grinder pumps and control panels specified in Contract 2. An additional 160 individual grinder pumps and control panels will be purchased at the unit bid price from the lowest bidder of Contract 2.

New individual grinder pumps and control panels will be installed throughout the service area at a rate of approximately 40 grinder pumps and control panels per month. All grinder pumps and control panels shall be installed by end of year 2019. This purchase will be in addition to the purchase and delivery to be completed as part of Contract 2.

**TABLE 3
DEVELOPMENT COST**

<u>Budget Item</u>	<u>Opinion of Probable Cost</u>	<u>Revised Cost</u>
Contract 1: Pittsburg Lift Station & Force Main Extensions	\$396,800	\$374,074
Contract 2: Materials Purchase Contract – Individual Grinder Pumps & Portable Generator	540,000	415,000
160 Individual Grinder Pumps & Control Panels @ \$1,200/unit	-	192,000
Total Funding Available	\$936,800	\$981,074

4. RECOMMENDATIONS

1. It is recommended that the contract for Contract 1: Pittsburg Lift Station & Force Main Extensions be awarded to Weddle Enterprises, Inc. in the amount of \$374,074.00. The contractor has constructed other similar projects and all reference checks have been exceptional.
2. It is recommended that the contract for Contract 2: Materials Purchase Contract – Individual Grinder Pumps & Portable Generator be awarded to Engineered Design Solutions, Inc. in the amount of \$415,000.00. The supplier has delivered on other similar projects and all reference checks were acceptable.
3. It is recommended that all funding remaining after the substantial completion of the original contracts be utilized as set forth and described in this report.
4. It is recommended that the user rates be adjusted to generate the revenue required to pay the debt service, coverage, and depreciation cost associated with these projects. The new rates shall be as outlined in the Summary Addendum to Preliminary Engineering Report and the RD Letter of Conditions.

APPENDIX A
CERTIFIED BID TABULATIONS

BID TABULATIONS

Sheet 1 of 2

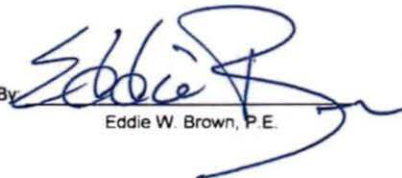
KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601

Owner: Wood Creek Water District
Project: Contract 1: Pittsburg Lift Station & Force Main Extensions
Bid Date: December 19, 2017 at 1:30 P.M. Local Time

Project No. 2016087

Base Project				Weddie Enterprises, Inc. 25 Shanes Lane Somerset, KY 42501		Boca Enterprises, Inc. 7435 KY Route 321 Hager Hill, KY 41222		D & H Contracting Co. Inc. 2003 Lakeview Drive London, KY 40741		Irvine Contracting, Inc. 3637 East Laurel Road London, KY 40741	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost
1	3" PVC, SDR-17 Force Main	LF	1,700	\$9.15	\$15,555.00	\$13.50	\$22,950.00	\$9.00	\$15,300.00	\$6.00	\$10,200.00
2	3" HDPE, DR-17 Force Main	LF	300	8.70	2,610.00	19.50	5,850.00	12.00	3,600.00	10.00	3,000.00
3	2" PVC, SDR-17 Force Main	LF	6,850	5.90	40,415.00	12.50	85,625.00	8.50	58,225.00	6.13	41,990.50
4	Bored Encasement for 3" Pipe	LF	40	79.90	3,196.00	150.00	6,000.00	110.00	4,400.00	61.50	2,460.00
5	Open Cut Encasement for 3" Pipe	LF	25	58.30	1,457.50	65.00	1,625.00	110.00	2,750.00	50.40	1,260.00
6	Bored Encasement for 2" Pipe	LF	60	46.50	2,790.00	140.00	8,400.00	110.00	6,600.00	50.00	3,000.00
7	4" x 2" Tie-In	EA	1	600.00	600.00	1,500.00	1,500.00	1,200.00	1,200.00	1,350.00	1,350.00
8	3" x 2" Tie-In	EA	1	631.50	631.50	1,500.00	1,500.00	1,200.00	1,200.00	1,511.00	1,511.00
9	3" Stub-Out	EA	2	833.50	1,667.00	500.00	1,000.00	1,600.00	3,200.00	2,600.00	5,200.00
10	Air Release Valve	EA	3	2,388.00	7,164.00	2,500.00	7,500.00	3,500.00	10,500.00	2,000.00	6,000.00
11	End Line Clean-Out	EA	4	1,622.00	6,488.00	500.00	2,000.00	2,500.00	10,000.00	2,000.00	8,000.00
12	Pittsburg Lift Station	LS	1	258,000.00	258,000.00	218,050.00	218,050.00	288,700.00	288,700.00	330,000.00	330,000.00
13	Free Bore	LF	500	30.00	15,000.00	30.00	15,000.00	10.00	5,000.00	20.00	10,000.00
14	Pavement Replacement										
	14a. Crushed Stone	LF	200	5.00	1,000.00	10.00	2,000.00	1.00	200.00	15.00	3,000.00
15	Telemetry Allowance	LS	1	17,500.00	17,500.00	17,500.00	17,500.00	17,500.00	17,500.00	17,500.00	17,500.00
TOTAL BASE BID					\$374,074.00		\$396,500.00		\$428,375.00		\$444,471.50

The above is a true and complete tabulation of the Bids received by Wood Creek Water District at their office located at 1670 E. Hal Rogers Parkway, London, KY on Tuesday, December 19, 2017 at 1:30 P.M. Local Time.

By:  12-28-17
Eddie W. Brown, P.E. Date



BID TABULATIONS

Sheet 2 of 2

KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601

Owner: Wood Creek Water District
Project: Contract 1: Pittsburg Lift Station & Force Main Extensions
Bid Date: December 19, 2017 at 1:30 P.M. Local Time

Project No. 2016087

Base Project				Bailey Excavating, LLC 595 Dan Gabbard Road London, KY 40741		Clay Pipeline 70 Fox Hollow Road Manchester, KY 40962		Akins Excavating Co., Inc. 182 Busy Lane Corbin, KY 40701	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost	Unit Cost	Cost
1	3" PVC, SDR-17 Force Main	LF	1,700	\$10.00	\$17,000.00	\$11.75	\$19,975.00	\$8.25	\$14,025.00
2	3" HDPE, DR-17 Force Main	LF	300	140.00	42,000.00	11.90	3,570.00	10.00	3,000.00
3	2" PVC, SDR-17 Force Main	LF	6,850	8.00	54,800.00	10.90	74,665.00	7.50	51,375.00
4	Bored Encasement for 3" Pipe	LF	40	150.00	6,000.00	58.00	2,320.00	95.00	3,800.00
5	Open Cut Encasement for 3" Pipe	LF	25	50.00	1,250.00	50.00	1,250.00	55.00	1,375.00
6	Bored Encasement for 2" Pipe	LF	60	140.00	8,400.00	53.00	3,180.00	90.00	5,400.00
7	4" x 2" Tie-In	EA	1	800.00	800.00	1,115.00	1,115.00	1,215.00	1,215.00
8	3" x 2" Tie-In	EA	1	950.00	950.00	1,160.00	1,160.00	1,333.00	1,333.00
9	3" Stub-Out	EA	2	1,250.00	2,500.00	1,555.00	3,110.00	1,483.00	2,966.00
10	Air Release Valve	EA	3	2,275.00	6,825.00	3,610.00	10,830.00	2,110.00	6,330.00
11	End Line Clean-Out	EA	4	1,050.00	4,200.00	2,500.00	10,000.00	1,645.00	6,580.00
12	Pittsburg Lift Station	LS	1	255,500.00	255,500.00	285,000.00	285,000.00	328,000.00	328,000.00
13	Free Bore	LF	500	45.00	22,500.00	30.00	15,000.00	26.25	13,125.00
14	Pavement Replacement								
	14a. Crushed Stone	LF	200	25.00	5,000.00	25.00	5,000.00	10.25	2,050.00
15	Telemetry Allowance	LS	1	17,500.00	17,500.00	17,500.00	17,500.00	17,500.00	17,500.00
TOTAL BASE BID					\$445,225.00		\$453,675.00		\$458,074.00

BID TABULATIONS

Sheet 1 of 1

KENVIRONS, INC.
452 Versailles Road
Frankfort, KY 40601

Owner: Wood Creek Water District
Project: Contract No. 2: Materials Purchase Contract - Individual Grinder Pumps & Portable Generator
Bid Date: December 19, 2017 at 1:30 P.M. Local Time

Project No. 2016087

Base Project				Engineered Design Solutions, Inc. P.O. Box 27 Hartford, KY 42347		Straeffer Pump and Supply, Inc. 8055 State Rd. 62 West Chandler, IN 47610	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost
1	Individual Grinder Pumps	EA	300	\$1,200.00	\$360,000.00	\$1,827.00	\$548,100.00
TOTAL BASE PROJECT					\$360,000.00		\$548,100.00

Alternate No. 1				Engineered Design Solutions, Inc.		Straeffer Pump and Supply, Inc.	
Item No.	Item Description	Unit	Quantity	Unit Cost	Cost	Unit Cost	Cost
1	Portable Generator	EA	1	\$55,000.00	\$55,000.00	\$57,733.00	\$57,733.00
TOTAL ALTERNATE NO. 1					\$55,000.00		\$57,733.00
TOTAL BASE BID = BASE PROJECT + ALTERNATE NO. 1					\$415,000.00		\$605,833.00

Note: A bid was also received from MBE Contracting & Supply, LLC of Louisville, KY. Due to the absence of a Bid Bond in the bid submittal package, the bid was deemed unresponsive and has been rejected. This bid is therefore not shown in the Bid Tabulation.

The above is a true and complete tabulation of the Bids received by Wood Creek Water District at their office located at 1670 E. Hal Rogers Parkway, London, KY, on Tuesday, December 19, 2017 at 1:30 P.M. Local Time.

By: 
Eddie W. Brown, P.E.

1-4-18
Date

