



**Shafer, Kline and Warren, Inc.**

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Wednesday, August 17, 2016

**KJ Unnerstall Construction**  
4923 South Point Road  
Washington, MO 63090  
636-239-2028

**Reed Dozing & Contracting, LLC**  
19935 E. Yater Rd.  
Sheldon, MO 64784  
417-884-2629

**LAMKE Trenching & Excavating, Inc.**  
16323 Concord Hill Road  
Marthasville, MO 63357-1413  
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**East Wastewater Treatment Facility Improvements**

	UNIT	QUANTITY	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
East Lagoon removal of outlet structure piping, construct emergency spillway,								
1 remove and dispose of existing curtain baffles, & dirtwork for improvements	LS	1	\$67,670.00	\$67,670.00	\$200,000.00	\$200,000.00	\$248,795.00	\$248,795.00
2 Partial East Lagoon Sludge Removal	DT	400	\$330.00	\$132,000.00	\$170.00	\$68,000.00	\$403.00	\$161,200.00
3 SAGR from Nelson Environmental	LS	1	\$288,100.00	\$288,100.00	\$288,100.00	\$288,100.00	\$288,100.00	\$288,100.00
4 SAGR from Nelson Environmental Equipment Installation	LS	1	\$136,720.00	\$136,720.00	\$90,000.00	\$90,000.00	\$160,750.00	\$160,750.00
<b>Influent Line From Lagoon to SAGR System-</b>								
82' of 8" PVC, 113' of 10" DIP, 2 - 10" Gate Valves, 2 - 10" Tees, one 10" 45°								
5 Elbow and one 10" 90° elbow	LS	1	\$18,300.00	\$18,300.00	\$20,000.00	\$20,000.00	\$21,068.00	\$21,068.00
<b>Items to be provided for by contractor - SAGR</b>								
6 Uniformed graded clean rock	CY	3,970	\$45.00	\$178,650.00	\$60.00	\$238,200.00	\$27.00	\$107,190.00
7 Insulating wood chips	CY	450	\$35.00	\$15,750.00	\$75.00	\$33,750.00	\$21.00	\$9,450.00
8 Non-Woven Geotextile (8 oz.)	SF	41,860	\$1.00	\$41,860.00	\$0.36	\$15,069.60	\$0.71	\$29,720.60
9 HDPE Liner	SF	25,400	\$2.50	\$63,500.00	\$2.00	\$50,800.00	\$3.10	\$78,740.00
10 Wall Framing & Sheathing	LF	1,070	\$19.00	\$20,330.00	\$65.00	\$69,550.00	\$45.00	\$48,150.00
11 Influent Flow Splitter Structure	LS	1	\$2,490.00	\$2,490.00	\$7,850.00	\$7,850.00	\$3,950.00	\$3,950.00
12 8" Gate Valves	EA	6	\$1,270.00	\$7,620.00	\$2,000.00	\$12,000.00	\$1,241.00	\$7,446.00
Blowers with concrete pad, 96' of 4" HDPE piping, 8 - 4" control valves, 20' of 6"								
13 DIP & 250' of 6" HDPE piping	LS	1	\$98,925.00	\$98,925.00	\$113,000.00	\$113,000.00	\$95,184.00	\$95,184.00
UV materials for future connection - concrete pad (6'x12'), 2-8" G.V, 2-10"x8"								
14 tees, 2-8" 90° elbows, 12' of 8" PVC, and 2 PVC caps	LS	1	\$8,065.00	\$8,065.00	\$13,000.00	\$13,000.00	\$12,058.00	\$12,058.00
<b>Effluent Line From SAGR System</b>								
15 8" SDR-35 PVC	LF	85	\$35.00	\$2,975.00	\$60.00	\$5,100.00	\$54.85	\$4,662.25
16 10" SDR-35 PVC	LF	287	\$29.00	\$8,323.00	\$65.00	\$18,655.00	\$57.67	\$16,551.29
17 10" D.I.P.	LF	16	\$61.00	\$976.00	\$95.00	\$1,520.00	\$100.00	\$1,600.00
18 Effluent Control Structure No. 1	EA	1	\$3,500.00	\$3,500.00	\$6,200.00	\$6,200.00	\$13,620.00	\$13,620.00
19 Effluent Control Structure No. 2	EA	1	\$3,500.00	\$3,500.00	\$6,200.00	\$6,200.00	\$3,670.00	\$3,670.00
20 Concrete Encasement	LF	25	\$75.00	\$1,875.00	\$150.00	\$3,750.00	\$75.00	\$1,875.00
21 Parshall Flume	LS	1	\$12,490.00	\$12,490.00	\$23,000.00	\$23,000.00	\$18,775.00	\$18,775.00
22 Concrete Apron	LS	1	\$1,500.00	\$1,500.00	\$4,800.00	\$4,800.00	\$11,640.00	\$11,640.00
23 Type 2 Rock Ditch Liner (150 CY)	CY	150	\$55.00	\$8,250.00	\$40.00	\$6,000.00	\$75.00	\$11,250.00
24 15" CMP culvert pipe	LF	40	\$40.00	\$1,600.00	\$50.00	\$2,000.00	\$70.00	\$2,800.00
25 Gravel Surface Drive Area	SY	1,633	\$8.00	\$13,064.00	\$10.00	\$16,330.00	\$12.00	\$19,596.00
Implementation, Reporting & Maintenance of the SWPPP including obtaining								
26 the Land Disturbance Permit from DNR	LS	1	\$40,000.00	\$40,000.00	\$45,000.00	\$45,000.00	\$16,200.00	\$16,200.00
27 Staking	LS	1	\$12,000.00	\$12,000.00	\$9,500.00	\$9,500.00	\$26,238.00	\$26,238.00
28 Fertilizing, Seeding & Mulching	AC	3.75	\$2,200.00	\$8,250.00	\$4,500.00	\$16,875.00	\$3,135.00	\$11,756.25
<b>Total for East Wastewater Treatment Facility Improvements</b>				<b>\$1,198,283.00</b>	<b>\$1,384,249.60</b>	<b>\$1,432,035.39</b>		

**Southwest Lift Station and Forcemain**

	UNIT	QUANTITY	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
8" SDR-35 PVC, installed complete including trench embedment, backfill and								
29 cleanup	LF	92	\$35.00	\$3,220.00	\$60.00	\$5,520.00	\$54.95	\$5,055.40
10" SDR-35 PVC, installed complete including trench embedment, backfill and								
30 cleanup	LF	287	\$29.00	\$8,323.00	\$65.00	\$18,655.00	\$57.67	\$16,551.29
4' Dia. precast concrete manhole installed complete including trench								
31 embedment, backfill & cleanup	EA	3	\$1,750.00	\$5,250.00	\$3,000.00	\$9,000.00	\$2,411.00	\$7,233.00
32 4' Dia. manhole extra depth	VF	2	\$250.00	\$500.00	\$200.00	\$400.00	\$350.00	\$700.00
33 Connect to existing sewer main complete, including backfill & cleanup	EA	2	\$1,000.00	\$2,000.00	\$825.00	\$1,650.00	\$7,444.00	\$14,888.00
34 8" D.I.P. installed complete including trench embedment, backfill & cleanup	LF	67	\$70.00	\$4,690.00	\$66.00	\$4,422.00	\$55.00	\$3,685.00

35	8" SDR-21 PVC forcemain installed complete including trench embedment, tracer wire, backfill & cleanup	LF	7,421	*	::	\$19.00 =	\$140,999.00 ::	\$27.00 =	\$200,367.00 ::	\$16.64 =	\$123,485.44 ::		
36	8" R.J. PVC for Railroad and Highway bores installed complete with tracer wire	LF	387	*	::	\$250.00 =	\$96,750.00 ::	\$127.00 =	\$49,149.00 ::	\$270.00 =	\$104,490.00 ::		
37	8" R.J. PVC Directional Bore installed complete including tracer wire, backfill and cleanup	LF	455	*	::	\$90.00 =	\$40,950.00 ::	\$110.00 =	\$50,050.00 ::	\$85.00 =	\$38,675.00 ::		
38	8" D.I. R.J. 11.25° Elbow installed complete including tracer wire, backing block, backfill & cleanup	EA	6	*	::	\$350.00 =	\$2,100.00 ::	\$330.00 =	\$1,980.00 ::	\$464.00 =	\$2,784.00 ::		
39	8" D.I. R.J. 22.5° Elbow installed complete including tracer wire, backing block, backfill & cleanup	EA	2	*	::	\$400.00 =	\$800.00 ::	\$330.00 =	\$660.00 ::	\$504.00 =	\$1,008.00 ::		
40	8" D.I. R.J. 45° Elbow installed complete including tracer wire, backing block, backfill & cleanup	EA	9	*	::	\$450.00 =	\$4,050.00 ::	\$330.00 =	\$2,970.00 ::	\$504.00 =	\$4,536.00 ::		
41	8" Duckbill check valve installed complete	EA	1	*	::	\$1,025.00 =	\$1,025.00 ::	\$4,200.00 =	\$4,200.00 ::	\$893.45 =	\$893.45 ::		
42	Combination Air Release Valve installed complete including backfill & cleanup	EA	11	*	::	\$3,800.00 =	\$41,800.00 ::	\$3,850.00 =	\$42,350.00 ::	\$2,985.00 =	\$32,835.00 ::		
43	Tracer Wire Test Station installed complete including backfill and cleanup	EA	6	*	::	\$200.00 =	\$1,200.00 ::	\$550.00 =	\$3,300.00 ::	\$217.50 =	\$1,305.00 ::		
44	Reboundable Location Markers	EA	5	*	::	\$50.00 =	\$250.00 ::	\$550.00 =	\$2,750.00 ::	\$77.00 =	\$385.00 ::		
45	16" Steel Casing Highway Bore complete including casing spacers, end seals, backfill & cleanup	LF	120	*	::	\$30.00 =	\$3,600.00 ::	\$160.00 =	\$19,200.00 ::	\$325.00 =	\$39,000.00 ::		
46	16" Steel Casing Railroad Bore complete including casing spacers, end seals, signs at ROW, backfill & cleanup	LF	210	*	::	\$45.00 =	\$9,450.00 ::	\$190.00 =	\$39,900.00 ::	\$362.00 =	\$76,020.00 ::		
47	Construct Type 2 Rock Ditch Liner Outfall Structure for 8" forcemain from SW Lift Station to East Lagoon	CY	21.5	*	::	\$56.00 =	\$1,204.00 ::	\$40.00 =	\$860.00 ::	\$125.00 =	\$2,687.50 ::		
48	Abandon & Plug existing sewer main complete including cleanup	EA	1	*	::	\$5,000.00 =	\$5,000.00 ::	\$1,800.00 =	\$1,800.00 ::	\$1,250.00 =	\$1,250.00 ::		
49	Construct Southwest Lift Station, complete including valve vault, piping, electrical, gravel access area, backfill and site restoration	LS	1	*	::	\$129,200.00 =	\$129,200.00 ::	\$163,000.00 =	\$163,000.00 ::	\$262,935.00 =	\$262,935.00 ::		
50	Abandonment of cells 2 & 3 of the SW lagoon complete including removal of existing structures and piping, site grading, constructing emergency overflow spillways to Cell No. 1, cleanup site restoration	LS	1	*	::	\$67,800.00 =	\$67,800.00 ::	\$140,000.00 =	\$140,000.00 ::	\$192,487.00 =	\$192,487.00 ::		
<b>Total for Southwest Lift Station and Forcemain</b>							<b>\$570,161.00</b> ::		<b>\$762,183.00</b> ::		<b>\$932,889.08</b> ::		
<b>East Lift Station Replacement</b>						<b>UNIT</b>	<b>QUANTITY</b>	<b>UNIT PRICE</b>	<b>TOTAL</b>	<b>UNIT PRICE</b>	<b>TOTAL</b>	<b>UNIT PRICE</b>	<b>TOTAL</b>
51	Construct East Lift Station, complete including valve vault, piping to existing 8" forcemain, electrical, piping to emergency storage, chain link fence, gravel access area, backfill & cleanup	LS	1	*	::	\$130,220.00 =	\$130,220.00 ::	\$147,000.00 =	\$147,000.00 ::	\$283,530.00 =	\$283,530.00 ::		
52	Construct emergency storage, complete with access manhole, cleanout vents, connection to new East Lift Station, backfill and cleanup	LS	1	*	::	\$119,885.00 =	\$119,885.00 ::	\$123,967.40 =	\$123,967.40 ::	\$113,579.00 =	\$113,579.00 ::		
53	Remove existing East LS, block building, valve vaults, 6" gate valve, removal of 6" line & cap existing 6" line (3 places) removal of existing 8" forcemain backfill and cleanup	LS	1	*	::	\$20,140.00 =	\$20,140.00 ::	\$40,000.00 =	\$40,000.00 ::	\$12,860.00 =	\$12,860.00 ::		
<b>Total for East Lift Station Replacement</b>							<b>\$270,245.00</b> ::		<b>\$310,967.40</b> ::		<b>\$409,969.00</b> ::		
<b>TOTAL BASE BID</b>							<b>\$2,038,689.00</b>		<b>\$2,457,400.00</b>		<b>\$2,774,893.47</b>		

<u>Route AA Gravity Sewer Line Rehabilitation (ADDITIVE ALTERNATE NO. 1)</u>		<u>UNIT</u>	<u>QUANTITY</u>		<u>UNIT PRICE</u>	<u>TOTAL</u>		<u>UNIT PRICE</u>	<u>TOTAL</u>		<u>UNIT PRICE</u>	<u>TOTAL</u>
54	Service Tap Cut	EA	15	*	\$1,100.00 =	\$16,500.00	::	\$120.00 =	\$1,800.00	::	\$850.00 =	\$12,750.00
55	8" Sewer Lining	LF	1632	*	\$37.50 =	\$61,200.00	::	\$25.00 =	\$40,800.00	::	\$36.00 =	\$58,752.00
56	Service Connection Repair	EA	15	*	\$2,000.00 =	\$30,000.00	::	\$720.00 =	\$10,800.00	::	\$1,250.00 =	\$18,750.00
57	Manhole Rehabilitation	EA	6	*	\$4,050.00 =	\$24,300.00	::	\$2,050.00 =	\$12,300.00	::	\$4,500.00 =	\$27,000.00
<b>Total for Route AA Gravity Sewer Line Rehabilitation</b>						<b>\$132,000.00</b>	::		<b>\$65,700.00</b>	::		<b>\$117,252.00</b>
<b>TOTAL BASE BID + ALTERNATE NO. 1</b>						<b>\$2,170,689.00</b>	::		<b>\$2,523,100.00</b>	::		<b>\$2,892,145.47</b>
<u>Southwest Surge Basin (ADDITIVE ALTERNATE NO. 2)</u>		<u>UNIT</u>	<u>QUANTITY</u>		<u>UNIT PRICE</u>	<u>TOTAL</u>		<u>UNIT PRICE</u>	<u>TOTAL</u>		<u>UNIT PRICE</u>	<u>TOTAL</u>
Construct new earthen drain basin structure complete including earthwork, piping, valves, concrete access ramp, concrete floor & walls, overflow rock structure, emergency overflow spillway, backfill & cleanup.		LS	1	*	\$318,367.00 =	\$318,367.00	::	\$498,000.00 =	\$498,000.00	::	\$378,938.00 =	\$378,938.00
<b>Total For Southwest Surge Basin</b>						<b>\$318,367.00</b>	::		<b>\$498,000.00</b>	::		<b>\$378,938.00</b>
<b>TOTAL BASE BID + ALTERNATE NO. 1 + ALTERNATE NO. 2</b>						<b>\$2,489,056.00</b>	::		<b>\$3,021,100.00</b>	::		<b>\$3,271,083.47</b>
<u>Additional Sludge Removal (ADDITIVE ALTERNATE NO. 3)</u>		<u>UNIT</u>	<u>QUANTITY</u>		<u>UNIT PRICE</u>	<u>TOTAL</u>		<u>UNIT PRICE</u>	<u>TOTAL</u>		<u>UNIT PRICE</u>	<u>TOTAL</u>
59	East Lagoon	DT	2060	*	\$138.50 =	\$285,310.00	::	\$145.00 =	\$298,700.00	::	\$375.00 =	\$772,500.00
60	Southwest Lagoon Primary Cell	DT	1450	*	\$138.50 =	\$200,825.00	::	\$145.00 =	\$210,250.00	::	\$375.00 =	\$543,750.00
<b>Total for Additional Sludge Removal</b>						<b>\$486,135.00</b>	::		<b>\$508,950.00</b>	::		<b>\$1,316,250.00</b>
<b>TOTAL BASE BID + ALTERNATE NO. 1 + ALTERNATE NO. 2 + ALTERNATE NO. 3</b>						<b>\$2,975,191.00</b>	::		<b>\$3,530,050.00</b>	::		<b>\$4,587,333.47</b>