Crest, Buena Vista, & Washington Water Main Replacement Project

	Crest, Buena Vista, & Washington Water Main Replacement Project File 2016-029 ITB 4525				Engineer's Estimate		E. T. MacKenzie Company		Fonson Company, Inc		Bailey Excavating, Inc	
Item	Description	Unit	Estimated Quantity	Unit Price	Cost	Unit Price	Cost	Unit Price	Cost	Unit Price	Cost	
130	Protective Fencing	FT	225.00	\$4.00	\$900.00	\$3.25	\$731.25	\$10.00	\$2,250.00	\$3.50	\$787.50	
	Exploratory Excavation (0-10' deep) Tree Removal, 8" or Larger, Modified	EA EA	18.00 3.00	\$1,000.00 \$800.00	\$18,000.00 \$2,400.00	\$1,000.00 \$1,800.00	\$18,000.00 \$5,400.00	\$650.00 \$1,200.00	\$11,700.00 \$3,600.00	\$1,375.00 \$1,050.00	\$24,750.00 \$3,150.00	
	Project Supervision, Max \$25,000.00	LS	1.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	
	General Conditions, Max. \$50,000.00	LS	1.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	
	Digital Audio Visual Coverage Minor Traffic Devices, Max \$15,000.00	LS LS	1.00	\$5,000.00 \$15,000.00	\$5,000.00 \$15,000.00	\$1,250.00 \$15,000.00	\$1,250.00 \$15,000.00	\$1,150.00 \$15,000.00	\$1,150.00 \$15,000.00	\$3,700.00 \$15,000.00	\$3,700.00 \$15,000.00	
205	Clean-Up & Restoration, Special	LS	1.00	\$10,000.00	\$10,000.00	\$29,931.05	\$29,931.05	\$52,500.00	\$52,500.00	\$25,000.00	\$25,000.00	
	"No Parking" Signs Sewer, Any Size or Depth, Remove	EA FT	60.00 478.00	\$60.00 \$40.00	\$3,600.00	\$135.00	\$8,100.00	\$60.00	\$3,600.00 \$14,818.00	\$150.00	\$9,000.00	
	Drainage Structure, Any Size or Depth, Remove	EA	23.00	\$40.00	\$19,120.00 \$13,800.00	\$0.50 \$40.00	\$239.00 \$920.00	\$31.00 \$800.00	\$14,818.00	\$24.55 \$799.00	\$11,734.90 \$18,377.00	
211	Remove Sanitary Sewer Lead	FT	100.00	\$15.00	\$1,500.00	\$0.01	\$1.00	\$40.00	\$4,000.00	\$17.50	\$1,750.00	
	Abandoned 20" Steel Water Main Pipe, Remove Water Main Pipe Abandonment, Modified	FT LS	1100.00	15.00 \$20,000.00	\$16,500.00 \$20,000.00	\$0.01 \$53,500.00	\$11.00 \$53,500.00	\$60.00 \$62,500.00	\$66,000.00 \$62,500.00	\$26.56 \$7,800.00	\$29,216.00 \$7,800.00	
221	Fire Hydrant Assembly Abandonment	EA	5.00	\$800.00	\$4,000.00	\$735.00	\$3,675.00	\$1,300.00	\$6,500.00	\$775.00	\$3,875.00	
222	Temporary 6 inch or 8 inch Water Main Line Stop	EA	6.00	\$7,000.00	\$42,000.00	\$11,700.00	\$70,200.00	\$6,750.00	\$40,500.00	\$6,150.00	\$36,900.00	
223	Temporary 12 inch Water Main Line Stop Temporary 16 inch Water Main Line Stop	EA EA	2.00	\$12,000.00 \$16,000.00	\$24,000.00 \$32,000.00	\$13,850.00 \$18,500.00	\$27,700.00 \$37,000.00	\$8,650.00 \$13,800.00	\$17,300.00 \$27,600.00	\$8,145.00 \$12,345.00	\$16,290.00 \$24,690.00	
225	6-Inch Wrapped Underdrain	FT	3230.00	\$6.00	\$19,380.00	\$11.00	\$35,530.00	\$17.50	\$56,525.00	\$8.75	\$28,262.50	
	Machine Grading, Modified Subgrade Undercutting - Type II	SYD CYD	14230.00 200.00	\$8.00 \$15.00	\$113,840.00 \$3,000.00	\$19.20 \$24.50	\$273,216.00 \$4,900.00	\$9.60 \$32.00	\$136,608.00 \$6,400.00	\$7.50 \$40.00	\$106,725.00 \$8,000.00	
	HMA Pavement Leveling/Top – LVSP	TON	3250.00	\$98.00	\$318,500.00	\$100.50	\$326,625.00	\$95.00	\$308,750.00	\$101.43	\$329,647.50	
240	Concrete Curb or Curb and Gutter - All Types	FT	2232.00	\$30.00	\$66,960.00	\$26.50	\$59,148.00	\$24.00	\$53,568.00	\$24.66	\$55,041.12	
241	Concrete Curb or Curb and Gutter - All Types (High Early) 4 Inch Concrete Sidewalk	FT SFT	1000.00 5434.00	\$35.00 \$7.00	\$35,000.00 \$38,038.00	\$27.00 \$5.00	\$27,000.00 \$27,170.00	\$29.00 \$6.50	\$29,000.00 \$35,321.00	\$24.66 \$3.57	\$24,660.00 \$19,399.38	
243	6 Inch Concrete Sidewalk Ramp	SFT	1551.00	\$8.00	\$12,408.00	\$6.50	\$10,081.50	\$7.80	\$12,097.80	\$5.53	\$8,577.03	
	6 Inch Concrete Drive - High Early Detectable Warning, Cast In Place	SYD SFT	242.00 360.00	\$9.00 \$35.00	\$2,178.00 \$12,600.00	\$51.00 \$73.00	\$12,342.00 \$26,280.00	\$80.00 \$15.50	\$19,360.00 \$5,580.00	\$35.88 \$38.55	\$8,682.96 \$13,878.00	
	Integral Sidewalk Retaining Wall, 6 inch to 18 inch	SFT	100.00	\$35.00 \$45.00	\$12,600.00	\$73.00	\$26,280.00	\$15.50 \$45.00	\$5,580.00	\$38.55 \$16.98	\$15,878.00	
250	Sand Subbase Course, Class II - C.I.P.	CYD	319.00	\$20.00	\$6,380.00	\$34.50	\$11,005.50	\$37.00	\$11,803.00	\$16.50	\$5,263.50	
251 252	21AA Limestone, C.I.P. Aggregate Base Course, 21AA - C.I.P.	CYD CYD	200.00	\$30.00 \$40.00	\$6,000.00 \$86,400.00	\$0.01 \$34.35	\$2.00 \$74,196.00	\$51.50 \$52.50	\$10,300.00 \$113,400.00	\$30.00 \$30.00	\$6,000.00 \$64,800.00	
261	Remove Concrete Curb or Curb and Gutter - Any Type	FT	3155.00	\$7.50	\$23,662.50	\$3.40	\$10,727.00	\$6.50	\$20,507.50	\$9.25	\$29,183.75	
	Remove Concrete Sidewalk and Drive - Any Thickness	SFT	7239.00	\$2.00	\$14,478.00	\$0.90	\$6,515.10	\$3.00	\$21,717.00	\$1.15	\$8,324.85	
	Pavt Mrkg, Thermoplastic, 6 inch Crosswalk Pavt Mrkg, Thermoplastic, 12 inch Crosswalk	FT FT	424.00 680.00	\$5.00 \$7.00	\$2,120.00 \$4,760.00	\$2.15 \$4.25	\$911.60 \$2,890.00	\$2.00 \$4.00	\$848.00 \$2,720.00	\$2.10 \$4.20	\$890.40 \$2,856.00	
272	Pavt Mrkg, Thermoplastic, 24 inch Stop Bar	FT	160.00	\$9.00	\$1,440.00	\$9.55	\$1,528.00	\$9.00	\$1,440.00	\$9.45	\$1,512.00	
273	Pavt Mrkg, Thermoplastic, School Certified Payroll Compliance and Reporting	EA LS	2.00 1.00	\$500.00 \$5,000.00	\$1,000.00 \$5,000.00	\$140.00 \$1.00	\$280.00 \$1.00	\$130.00 \$1,500.00	\$260.00 \$1,500.00	\$136.50 \$7,500.00	\$273.00 \$7,500.00	
	12" CL IV RCP Storm Sewer Pipe, Trench Detail I	FT	388.00	\$45.00	\$17,460.00	\$130.00	\$50,440.00	\$90.00	\$34,920.00	\$61.58	\$23,893.04	
	15" CL IV RCP Storm Sewer Pipe, Trench Detail I	FT	20.00	\$50.00	\$1,000.00	\$174.00	\$3,480.00	\$130.00	\$2,600.00	\$64.65	\$1,293.00	
	18" CL IV RCP Storm Sewer Pipe, Trench Detail I 4 inch SDR 35 PVC Sanitary Lead, Trench Detail I	FT FT	7.00	\$65.00 \$66.00	\$455.00 \$6,600.00	\$216.00 \$42.00	\$1,512.00 \$4,200.00	\$160.00 \$83.00	\$1,120.00 \$8,300.00	\$99.72 \$26.50	\$698.04 \$2,650.00	
354	6 inch SDR 35 PVC Sanitary Lead, Trench Detail I	FT	100.00	\$70.00	\$7,000.00	\$45.00	\$4,500.00	\$86.00	\$8,600.00	\$32.65	\$3,265.00	
	Type I Manhole (0-10' deep) Inlet-Junction Chamber	EA EA	2.00 1.00	\$3,000.00 \$2,200.00	\$6,000.00 \$2,200.00	\$3,500.00 \$3,500.00	\$7,000.00 \$3,500.00	\$2,250.00 \$2,200.00	\$4,500.00 \$2,200.00	\$1,750.00 \$1,475.00	\$3,500.00 \$1,475.00	
	Single Inlet	EA	22.00	\$1,500.00	\$33,000.00	\$2,600.00	\$57,200.00	\$2,050.00	\$45,100.00	\$1,200.00	\$26,400.00	
	6 inch Class 50 DIP w/polywrap, Trench Detail I	FT	82.00	\$88.00	\$7,216.00	\$167.00	\$13,694.00	\$240.00	\$19,680.00	\$75.02	\$6,151.64	
401	8 inch Class 50 DIP w/polywrap, Trench Detail I 12 inch Class 50 DIP w/polywrap, Trench Detail I	FT FT	2078.00 1826.00	\$93.00 \$96.00	\$193,254.00 \$175,296.00	\$185.00 \$156.00	\$384,430.00 \$284,856.00	\$136.00 \$152.00	\$282,608.00 \$277,552.00	\$79.62 \$89.65	\$165,450.36 \$163,700.90	
	6" 11.25° Bend	EA	1.00	\$550.00	\$550.00	\$860.00	\$860.00	\$456.00	\$456.00	\$470.64	\$470.64	
	6" 45° Bend 6" 90° Bend	EA EA	1.00	\$550.00 \$700.00	\$550.00 \$700.00	\$860.00 \$860.00	\$860.00 \$860.00	\$506.00 \$512.00	\$506.00 \$512.00	\$470.64 \$505.62	\$470.64 \$505.62	
	8" 11.25° Bend	EA	3.00	\$600.00	\$1,800.00	\$975.00	\$2,925.00	\$525.00	\$1,575.00	\$564.98	\$1,694.94	
	8" 22.5° Bend	EA	3.00	\$600.00	\$1,800.00	\$975.00	\$2,925.00	\$520.00	\$1,560.00	\$626.32	\$1,878.96	
	8" 45° Bend 8" 90° Bend	EA EA	39.00 3.00	\$600.00 \$650.00	\$23,400.00 \$1,950.00	\$975.00 \$975.00	\$38,025.00 \$2,925.00	\$537.00 \$549.00	\$20,943.00 \$1,647.00	\$501.38 \$681.58	\$19,553.82 \$2,044.74	
417	12" 11.25° Bend	EA	8.00	\$650.00	\$5,200.00	\$1,650.00	\$13,200.00	\$738.00	\$5,904.00	\$1,019.72	\$8,157.76	
	12" 45° Bend 12" 90° Bend	EA EA	12.00 2.00	\$700.00 \$750.00	\$8,400.00 \$1,500.00	\$1,650.00 \$1,650.00	\$19,800.00 \$3,300.00	\$750.00 \$810.00	\$9,000.00 \$1,620.00	\$1,115.12 \$1,121.48	\$13,381.44 \$2,242.96	
	8" x 1.5" Reducer	EA	1.00	\$600.00	\$600.00	\$4,000.00	\$4,000.00	\$360.00	\$360.00	\$583.00	\$583.00	
	8" x 2" Reducer	EA	1.00	\$600.00	\$600.00	\$4,000.00	\$4,000.00	\$360.00	\$360.00	\$583.00	\$583.00	
422	8" x 6" Reducer 12" x 6" Reducer	EA EA	9.00 2.00	\$550.00 \$700.00	\$4,950.00 \$1,400.00	\$1,125.00 \$1,300.00	\$10,125.00 \$2,600.00	\$410.00 \$500.00	\$3,690.00 \$1,000.00	\$519.40 \$773.80	\$4,674.60 \$1,547.60	
424	12" x 8" Reducer	EA	2.00	\$750.00	\$1,500.00	\$1,300.00	\$2,600.00	\$530.00	\$1,060.00	\$796.17	\$1,592.34	
	6" x 6" x 6" Tee 8" x 8" x 8" Tee	EA EA	1.00 9.00	\$1,750.00 \$2,100.00	\$1,750.00 \$18,900.00	\$1,250.00 \$2,250.00	\$1,250.00 \$20,250.00	\$594.00 \$685.00	\$594.00 \$6,165.00	\$693.24 \$941.28	\$693.24 \$8,471.52	
432	8" x 8" x 8" x 8" Cross	EA	1.00	\$2,500.00	\$2,500.00	\$1,450.00	\$1,450.00	\$800.00	\$800.00	\$1,291.08	\$1,291.08	
	8" x 8" x 12" x12" Cross	EA	1.00	\$3,000.00	\$3,000.00	\$1,600.00	\$1,600.00	\$980.00	\$980.00	\$1,649.57	\$1,649.57	
434	8" x 8" x 12" Tee 12" x 12" x 8" Tee	EA EA	1.00 4.00	\$1,900.00 \$2,000.00	\$1,900.00 \$8,000.00	\$1.00 \$1,550.00	\$1.00 \$6,200.00	\$1,260.00 \$850.00	\$1,260.00 \$3,400.00	\$1,397.08 \$1,473.40	\$1,397.08 \$5,893.60	
436	12" x 12" x 12" Tee	EA	3.00	\$2,400.00	\$7,200.00	\$3,500.00	\$10,500.00	\$1,130.00	\$3,390.00	\$1,654.66	\$4,963.98	
437	16" x 16" x 12" Tee Fire Hydrant Assembly	EA EA	1.00 8.00	\$3,000.00 \$4,500.00	\$3,000.00 \$36,000.00	\$12,000.00 \$4,500.00	\$12,000.00 \$36,000.00	\$1,800.00 \$4,570.00	\$1,800.00 \$36,560.00	\$3,741.80 \$4,450.00	\$3,741.80 \$35,600.00	
442	6" Gate Valve-in-Box	EA	1.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$1,200.00	\$1,200.00	\$1,770.20	\$1,770.20	
	8" Gate Valve-in-Box	EA	1.00	\$2,200.00	\$2,200.00	\$2,400.00	\$2,400.00	\$1,500.00	\$1,500.00	\$2,520.68	\$2,520.68	
444	12" Gate Valve-in-Box 6" Gate Valve-in Well	EA EA	1.00	\$2,500.00 \$4,500.00	\$2,500.00 \$4,500.00	\$3,300.00 \$5,700.00	\$3,300.00 \$5,700.00	\$2,600.00 \$4,280.00	\$2,600.00 \$4,280.00	\$3,265.23 \$3,339.00	\$3,265.23 \$3,339.00	
447	8" Gate Valve-in Well	EA	9.00	\$4,800.00	\$43,200.00	\$6,100.00	\$54,900.00	\$4,410.00	\$39,690.00	\$4,057.68	\$36,519.12	
448	12" Gate Valve-in Well Excavate & Backfill for Water Service Tap and Lead	EA FT	6.00 2400.00	\$5,000.00 \$48.00	\$30,000.00 \$115,200.00	\$7,000.00 \$50.00	\$42,000.00 \$120,000.00	\$5,220.00 \$48.00	\$31,320.00 \$115,200.00	\$6,044.12 \$18.01	\$36,264.72 \$43,224.00	
	Structure Covers	LBS	11700.00	\$1.50	\$17,550.00	\$1.50	\$120,000.00	\$1.25	\$115,200.00	\$18.01	\$43,224.00	
	Adjust Structure Cover	EA	27.00	\$350.00	\$9,450.00	\$500.00	\$13,500.00	\$712.00	\$19,224.00	\$275.00	\$7,425.00	
567 800	Adjust Monument Box or Gate Valve Box Celtic occidentalis, (Hackberry), 2 inch	EA EA	15.00 10	\$300.00 \$5.00	\$4,500.00 \$50.00	\$425.00 \$1,100.00	\$6,375.00 \$11,000.00	\$365.00 \$560.00	\$5,475.00 \$5,600.00	\$215.00 \$1,286.40	\$3,225.00 \$12,864.00	
801	Gleditsia tracanthos, (Honeylocust), 2 inch	EA	5	\$5.00	\$25.00	\$1,100.00	\$5,500.00	\$465.00	\$2,325.00	\$1,251.60	\$6,258.00	
802	Acer rubrum, (Red Maple), 2 inch	EA	5	\$5.00	\$25.00	\$1,100.00	\$5,500.00	\$460.00	\$2,300.00	\$1,296.75	\$6,483.75	
	Percent Over or Under Engineer's Estimate, Total			0%	\$1,898,295.50	35%	\$2,564,900.00	22%	\$2,312,284.30	-8%	\$1,749,825.00	