


OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
333 West Ocean Boulevard, 11th Floor
Lona Beach, CA 90802-4664

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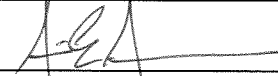
IN WITNESS WHEREOF, the parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.

ARB, INC., a California corporation

August 22, 2018

By 
Name Gregory S. Dahl
Title Senior Vice President

August 22, 2018

By 
Name Scott E. Summers
Title President

"Contractor"

CITY OF LONG BEACH, a municipal corporation

9/7/2018

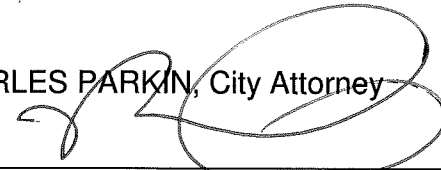
By 
City Manager

"City"

This Second Amendment to Contract No. 33970 is approved as to form on

August 28, 2018.

CHARLES PARKIN, City Attorney

By 
Deputy

Tom Modica
Assistant City Manager

EXECUTED PURSUANT
TO SECTION 301 OF
THE CITY CHARTER

EXHIBIT "A-2"

BALL VALVE - STEEL							
No.	Size	Type	Quantity	Unit	Unit Price	New Price	% Inc.
1	4"	Ball Valve	≥1	EA	\$1,244.00	\$1,288.66	3.59%
2	6"	Ball Valve	≥1	EA	\$1,531.00	\$1,585.96	3.59%
3	8"	Ball Valve	≥1	EA	\$1,781.00	\$1,844.94	3.59%
4	10"	Ball Valve	≥1	EA	\$2,052.00	\$2,125.67	3.59%
5	12"	Ball Valve	≥1	EA	\$2,884.00	\$2,987.54	3.59%
6	14"	Ball Valve	≥1	EA	\$3,308.00	\$3,426.76	3.59%
7	16"	Ball Valve	≥1	EA	\$4,138.00	\$4,286.55	3.59%
8	18"	Ball Valve	≥1	EA	\$4,697.00	\$4,865.62	3.59%
9	20"	Ball Valve	≥1	EA	\$6,411.00	\$6,641.15	3.59%

Note:

- All ball valve material is steel
- Ball valves 10" to 20" shall be gear operated and provided by LBGO
- Ball valve installation shall include valve casing and lid, valve casing extension and support pla

PRESSURE CONTROL FITTINGS						
No.	Size	Quantity	Unit	Unit Price	New Price	% Inc.
1.00	1"SAV	≥1	each	\$130.00	\$134.67	3.59%
2.00	2"SAV	≥1	each	\$242.00	\$250.69	3.59%
3.00	4" FT	≥1	each	\$440.00	\$455.80	3.59%
4.00	4" HPC	≥1	each	\$1,388.00	\$1,437.83	3.59%
5.00	4" PCBT	≥1	each	\$2,082.00	\$2,156.74	3.59%
6.00	4" PCST	≥1	each	\$2,082.00	\$2,156.74	3.59%
7.00	6" FT	≥1	each	\$1,306.00	\$1,352.89	3.59%
8.00	6" FPC	≥1	each	\$1,651.00	\$1,710.27	3.59%
9.00	6" PCBT	≥1	each	\$2,529.00	\$2,619.79	3.59%
10.00	6" PCST	≥1	each	\$2,541.00	\$2,632.22	3.59%
11.00	8" FT	≥1	each	\$1,447.00	\$1,498.95	3.59%
12.00	8" FPC	≥1	each	\$1,652.00	\$1,711.31	3.59%
13.00	8" PCBT	≥1	each	\$2,754.00	\$2,852.87	3.59%
14.00	8" PCST	≥1	each	\$2,754.00	\$2,852.87	3.59%
13.00	10" FPC	≥1	each	\$2,379.00	\$2,464.41	3.59%
14.00	10" PCBT	≥1	each	\$3,370.00	\$3,490.98	3.59%
15.00	10" PCST	≥1	each	\$3,370.00	\$3,490.98	3.59%
16.00	12" FPC	≥1	each	\$2,867.00	\$2,969.93	3.59%
17.00	12" PCBT	≥1	each	\$5,121.00	\$5,304.84	3.59%
18.00	12" PCST	≥1	each	\$5,121.00	\$5,304.84	3.59%
19.00	14" FPC	≥1	each	\$53,656.00	\$55,582.25	3.59%
20.00	16" FPC	≥1	each	\$62,899.00	\$65,157.07	3.59%
21.00	16" PCBT	≥1	each	\$64,027.00	\$66,325.57	3.59%
22.00	16" PCST	≥1	each	\$64,027.00	\$66,325.57	3.59%
23.00	18" FPC	≥1	each	\$70,067.00	\$72,582.41	3.59%
24.00	20" FPC	≥1	each	\$81,050.00	\$83,959.70	3.59%

NON CONTROLLABLE FITTINGS - STEEL							
No.	Size	Type	Quantity	Unit	Unit Price	New Price	% Inc
1	4"	45° Ell	per	each	\$1,151.00	\$1,192.32	3.59%
2	4"	90° Ell	per	each	\$1,151.00	\$1,192.32	3.59%
3	4"	45° Fitted & Trimmed	per	each	\$110.00	\$113.95	3.59%
4	4"	90° Fitted & Trimmed	per	each	\$110.00	\$113.95	3.59%
5	4"	End Cap	per	each	\$1,037.00	\$1,074.23	3.59%
6	4"	Tee	per	each	\$1,296.00	\$1,342.53	3.59%
7	4"	Insulator Fitting	per	each	\$1,165.00	\$1,206.82	3.59%
8	4"	Transition	per	each	\$1,113.00	\$1,152.96	3.59%
9	4"	Reducer	per	each	\$1,165.00	\$1,206.82	3.59%
10	6"	45° Ell	per	each	\$1,403.00	\$1,453.37	3.59%
11	6"	90° Ell	per	each	\$1,403.00	\$1,453.37	3.59%
12	6"	45° Fitted & Trimmed	per	each	\$137.00	\$141.92	3.59%
13	6"	90° Fitted & Trimmed	per	each	\$137.00	\$141.92	3.59%
14	6"	End Cap	per	each	\$1,195.00	\$1,237.90	3.59%
15	6"	Tee	per	each	\$1,505.00	\$1,559.03	3.59%
16	6"	Insulator Fitting	per	each	\$1,348.00	\$1,396.39	3.59%
17	6"	Transition	per	each	\$1,244.00	\$1,288.66	3.59%
18	6"	Reducer	per	each	\$1,348.00	\$1,396.39	3.59%

NON CONTROLLABLE FITTINGS - STEEL**NON CONTROLLABLE FITTINGS - STEEL (CONTINUED)**

No.	Size	Type	Quantity	Unit	Unit Price	New Price	% Inc
19	8"	45° Ell	per	each	\$1,597.00	\$1,654.33	3.59%
20	8"	90° Ell	per	each	\$1,597.00	\$1,654.33	3.59%
21	8"	45° Fitted & Trimmed	per	each	\$249.00	\$257.94	3.59%
22	8"	90° Fitted & Trimmed	per	each	\$249.00	\$257.94	3.59%
23	8"	End Cap	per	each	\$1,302.00	\$1,348.74	3.59%
24	8"	Tee	per	each	\$2,023.00	\$2,095.63	3.59%
25	8"	Insulator Fitting	per	each	\$1,582.00	\$1,638.79	3.59%
26	8"	Transition	per	each	\$1,464.00	\$1,516.56	3.59%
27	8"	Reducer	per	each	\$1,505.00	\$1,559.03	3.59%
28	10"	45° Ell	per	each	\$1,886.00	\$1,953.71	3.59%
29	10"	90° Ell	per	each	\$1,886.00	\$1,953.71	3.59%
30	10"	45° Fitted & Trimmed	per	each	\$342.00	\$354.28	3.59%
31	10"	90° Fitted & Trimmed	per	each	\$342.00	\$354.28	3.59%
32	10"	End Cap	per	each	\$1,710.00	\$1,771.39	3.59%
33	10"	Tee	per	each	\$2,027.00	\$2,099.77	3.59%
34	10"	Insulator Fitting	per	each	\$2,050.00	\$2,123.60	3.59%
35	10"	Transition	per	each	\$1,891.00	\$1,958.89	3.59%
36	10"	Reducer	per	each	\$2,050.00	\$2,123.60	3.59%

NON CONTROLLABLE FITTINGS - STEEL							
NON CONTROLLABLE FITTINGS - STEEL (CONTINUED)							
No.	Size	Type	Quantity	Unit	Unit Price	New Price	% Inc
37	12"	45° Ell	per	each	\$2,819.00	\$2,920.20	3.59%
38	12"	90° Ell	per	each	\$2,819.00	\$2,920.20	3.59%
39	12"	45° Fitted & Trimmed	per	each	\$625.00	\$647.44	3.59%
40	12"	90° Fitted & Trimmed	per	each	\$625.00	\$647.44	3.59%
41	12"	End Cap	per	each	\$2,574.00	\$2,666.41	3.59%
42	12"	Tee	per	each	\$3,835.00	\$3,972.68	3.59%
43	12"	Insulator Fitting	per	each	\$2,884.00	\$2,987.54	3.59%
45	12"	Reducer	per	each	\$2,884.00	\$2,987.54	3.59%
46	14"	45° Ell	per	each	\$3,114.00	\$3,225.79	3.59%
47	14"	90° Ell	per	each	\$3,114.00	\$3,225.79	3.59%
48	14"	45° Fitted & Trimmed	per	each	\$643.00	\$666.08	3.59%
49	14"	90° Fitted & Trimmed	per	each	\$643.00	\$666.08	3.59%
50	14"	End Cap	per	each	\$2,614.00	\$2,707.84	3.59%
51	14"	Tee	per	each	\$4,483.00	\$4,643.94	3.59%
52	14"	Insulator Fitting	per	each	\$3,010.00	\$3,118.06	3.59%
53	14"	Reducer	per	each	\$3,010.00	\$3,118.06	3.59%

NON CONTROLLABLE FITTINGS - STEEL**NON CONTROLLABLE FITTINGS - STEEL (CONTINUED)**

No.	Size	Type	Quantity	Unit	Unit Price	New Price	% Inc
54	16"	45° Ell	per	each	\$4,057.00	\$4,202.65	3.59%
55	16"	90° Ell	per	each	\$4,057.00	\$4,202.65	3.59%
56	16"	45° Fitted & Trimmed	per	each	\$714.00	\$739.63	3.59%
57	16"	90° Fitted & Trimmed	per	each	\$714.00	\$739.63	3.59%
58	16"	End Cap	per	each	\$3,396.00	\$3,517.92	3.59%
59	16"	Tee	per	each	\$5,768.00	\$5,975.07	3.59%
60	16"	Insulator Fitting	per	each	\$3,840.00	\$3,977.86	3.59%
61	16"	Reducer	per	each	\$3,840.00	\$3,977.86	3.59%
62	18"	45° Ell	per	each	\$4,201.00	\$4,351.82	3.59%
63	18"	90° Ell	per	each	\$4,201.00	\$4,351.82	3.59%
64	18"	45° Fitted & Trimmed	per	each	\$852.00	\$882.59	3.59%
65	18"	90° Fitted & Trimmed	per	each	\$852.00	\$882.59	3.59%
66	18"	End Cap	per	each	\$3,804.00	\$3,940.56	3.59%
67	18"	Tee	per	each	\$6,051.00	\$6,268.23	3.59%
68	18"	Insulator Fitting	per	each	\$4,303.00	\$4,457.48	3.59%
69	18"	Reducer	per	each	\$4,303.00	\$4,457.48	3.59%
NON CONTROLLABLE FITTINGS - STEEL (CONTINUED)							
No.	Size	Type	Quantity	Unit	Unit Price	New Price	% Inc
70	20"	45° Ell	per	each	\$5,472.00	\$5,668.44	3.59%
71	20"	90° Ell	per	each	\$5,472.00	\$5,668.44	3.59%
72	20"	45° Fitted & Trimmed	per	each	\$988.00	\$1,023.47	3.59%
73	20"	90° Fitted & Trimmed	per	each	\$988.00	\$1,023.47	3.59%
74	20"	End Cap	per	each	\$4,290.00	\$4,444.01	3.59%
75	20"	Tee	per	each	\$7,597.00	\$7,869.73	3.59%
76	20"	Insulator Fitting	per	each	\$6,113.00	\$6,332.46	3.59%
77	20"	Reducer	per	each	\$6,113.00	\$6,332.46	3.59%

NEW POLYETHYLENE SERVICE INSTALLATION					
No.	Pipe Size	Linear Foot	Unit Price	New Price	% Inc
1	1/2" (\$ / lin. Ft.)	1' - 20'	\$71.90	\$74.48	3.59%
2	1/2" (\$ / lin. Ft.)	21' - 40'	\$25.60	\$26.52	3.59%
3	1/2" (\$ / lin. Ft.)	41' - 60'	\$17.25	\$17.87	3.59%
4	1/2" (\$ / lin. Ft.)	61' - 80'	\$12.65	\$13.10	3.59%
5	1/2" (\$ / lin. Ft.)	81' - 100'	\$9.70	\$10.05	3.59%
6	1/2" (\$ / lin. Ft.)	101' - +	\$8.70	\$9.01	3.59%
7	3/4" (\$ / lin. Ft.)	1' - 20'	\$79.95	\$82.82	3.59%
8	3/4" (\$ / lin. Ft.)	21' - 40'	\$32.80	\$33.98	3.59%
9	3/4" (\$ / lin. Ft.)	41' - 60'	\$25.70	\$26.62	3.59%
10	3/4" (\$ / lin. Ft.)	61' - 80'	\$20.15	\$20.87	3.59%
11	3/4" (\$ / lin. Ft.)	81' - 100'	\$16.95	\$17.56	3.59%
12	3/4" (\$ / lin. Ft.)	101' - +	\$16.00	\$16.57	3.59%
13	1" (\$ / lin. Ft.)	1' - 20'	\$82.65	\$85.62	3.59%
14	1" (\$ / lin. Ft.)	21' - 40'	\$33.05	\$34.24	3.59%
15	1" (\$ / lin. Ft.)	41' - 60'	\$26.15	\$27.09	3.59%
16	1" (\$ / lin. Ft.)	61' - 80'	\$20.70	\$21.44	3.59%
17	1" (\$ / lin. Ft.)	81' - 100'	\$17.75	\$18.39	3.59%
18	1" (\$ / lin. Ft.)	101' - +	\$17.00	\$17.61	3.59%
19	1 1/4" (\$ / lin. Ft.)	1' - 20'	\$83.60	\$86.60	3.59%
20	1 1/4" (\$ / lin. Ft.)	21' - 40'	\$33.55	\$34.75	3.59%
21	1 1/4" (\$ / lin. Ft.)	41' - 60'	\$26.55	\$27.50	3.59%
22	1 1/4" (\$ / lin. Ft.)	61' - 80'	\$24.65	\$25.53	3.59%
23	1 1/4" (\$ / lin. Ft.)	81' - 100'	\$23.70	\$24.55	3.59%
24	1 1/4" (\$ / lin. Ft.)	101' - +	\$22.55	\$23.36	3.59%
31	2" (\$ / lin. Ft.)	1' - 20'	\$84.00	\$87.02	3.59%
32	2" (\$ / lin. Ft.)	21' - 40'	\$41.80	\$43.30	3.59%
33	2" (\$ / lin. Ft.)	41' - 60'	\$81.30	\$84.22	3.59%
34	2" (\$ / lin. Ft.)	61' - 80'	\$55.90	\$57.91	3.59%
35	2" (\$ / lin. Ft.)	81' - 100'	\$51.85	\$53.71	3.59%
36	2" (\$ / lin. Ft.)	101' - +	\$50.90	\$52.73	3.59%

POLYETHYLENE SERVICE TIE-OVER					
No.	Pipe Size	Linear Foot	Unit Price	New Price	% Inc
1	1/2" (\$ / lin. Ft.)	0'	\$800.00	\$828.72	3.59%
2	1/2" (\$ / lin. Ft.)	1' - 5'	\$316.00	\$327.34	3.59%
3	1/2" (\$ / lin. Ft.)	6' - 15'	\$79.50	\$82.35	3.59%
4	1/2" (\$ / lin. Ft.)	16' - 25'	\$40.75	\$42.21	3.59%
5	1/2" (\$ / lin. Ft.)	26' - 35'	\$35.50	\$36.77	3.59%
6	1/2" (\$ / lin. Ft.)	36' - 50'	\$31.35	\$32.48	3.59%
7	1/2" (\$ / lin. Ft.)	51' - +	\$29.80	\$30.87	3.59%
8	3/4" (\$ / lin. Ft.)	0'	\$810.00	\$839.08	3.59%
9	3/4" (\$ / lin. Ft.)	1' - 5'	\$320.00	\$331.49	3.59%
10	3/4" (\$ / lin. Ft.)	6' - 15'	\$81.50	\$84.43	3.59%
11	3/4" (\$ / lin. Ft.)	16' - 25'	\$46.00	\$47.65	3.59%
12	3/4" (\$ / lin. Ft.)	26' - 35'	\$42.85	\$44.39	3.59%
13	3/4" (\$ / lin. Ft.)	36' - 50'	\$35.55	\$36.83	3.59%
14	3/4" (\$ / lin. Ft.)	51' - +	\$30.85	\$31.96	3.59%
15	1" (\$ / lin. Ft.)	0'	\$814.00	\$843.22	3.59%
16	1" (\$ / lin. Ft.)	1' - 5'	\$323.00	\$334.60	3.59%
17	1" (\$ / lin. Ft.)	6' - 15'	\$82.55	\$85.51	3.59%
18	1" (\$ / lin. Ft.)	16' - 25'	\$47.00	\$48.69	3.59%
19	1" (\$ / lin. Ft.)	26' - 35'	\$43.90	\$45.48	3.59%
20	1" (\$ / lin. Ft.)	36' - 50'	\$36.60	\$37.91	3.59%
21	1" (\$ / lin. Ft.)	51' - +	\$32.40	\$33.56	3.59%
22	1 1/4" (\$ / lin. Ft.)	0'	\$818.00	\$847.37	3.59%
23	1 1/4" (\$ / lin. Ft.)	1' - 5'	\$326.00	\$337.70	3.59%
24	1 1/4" (\$ / lin. Ft.)	6' - 15'	\$88.85	\$92.04	3.59%
25	1 1/4" (\$ / lin. Ft.)	16' - 25'	\$57.50	\$59.56	3.59%
26	1 1/4" (\$ / lin. Ft.)	26' - 35'	\$48.05	\$49.77	3.59%
27	1 1/4" (\$ / lin. Ft.)	36' - 50'	\$42.85	\$44.39	3.59%
28	1 1/4" (\$ / lin. Ft.)	51' - +	\$41.30	\$42.78	3.59%
29	2" (\$ / lin. Ft.)	0'	\$889.00	\$920.92	3.59%
30	2" (\$ / lin. Ft.)	1' - 5'	\$355.00	\$367.74	3.59%
31	2" (\$ / lin. Ft.)	6' - 15'	\$95.10	\$98.51	3.59%
32	2" (\$ / lin. Ft.)	16' - 25'	\$77.35	\$80.13	3.59%
33	2" (\$ / lin. Ft.)	26' - 35'	\$54.35	\$56.30	3.59%
34	2" (\$ / lin. Ft.)	36' - 50'	\$50.15	\$51.95	3.59%
35	2" (\$ / lin. Ft.)	51' - +	\$44.95	\$46.56	3.59%

MISCELLANEOUS ITEMS						
No.	Description	Quantity	Unit	Unit Price	New Price	% Inc.
1	Excess Depth – beyond 5' - including backfill	per	cu yd	\$708.00	\$733.42	3.59%
3	Additional Excavation of Bell hole/Trench - Asphalt x ≤ 5"	per	sf	\$229.00	\$237.22	3.59%
4	Additional Excavation of Bell hole/Trench - PCC x ≤ 5"	per	sf	\$247.00	\$255.87	3.59%
5	Additional Excavation of Bell hole/Trench - Asphalt 5"<x≤7"	per	sf	\$236.00	\$244.47	3.59%
6	Additional Excavation of Bell hole/Trench - PCC 5"<x≤ 7"	per	sf	\$265.00	\$274.51	3.59%
7	Additional Excavation of Bell hole/Trench - Asphalt 7"<x≤9"	per	sf	\$253.00	\$262.08	3.59%
8	Additional Excavation of Bell hole/Trench - PCC 7"<x≤ 9"	per	sf	\$270.00	\$279.69	3.59%
9	Installation of 4" STL pipe ≤ 29'	per	lf	\$253.00	\$262.08	3.59%
10	Installation of 6" STL pipe ≤ 29'	per	lf	\$280.00	\$290.05	3.59%
11	Installation of 8" STL pipe ≤ 29'	per	lf	\$311.00	\$322.16	3.59%
12	Installation of 10" STL pipe ≤ 29'	per	lf	\$359.00	\$371.89	3.59%
13	Installation of 12" STL pipe ≤ 29'	per	lf	\$447.00	\$463.05	3.59%
14	Installation of 14" STL pipe ≤ 29'	per	lf	\$554.00	\$573.89	3.59%
15	Installation of 16" STL pipe ≤ 29'	per	lf	\$674.00	\$698.20	3.59%
16	Installation of 18" STL pipe ≤ 29'	per	lf	\$726.00	\$752.06	3.59%
17	Installation of 20" STL pipe ≤ 29'	per	lf	\$849.00	\$879.48	3.59%
18	4" - Tap & Stop - Full Encirclement Pressure Control Fitting	per	each	\$4,415.00	\$4,573.50	3.59%
19	6" - Tap & Stop - Full Encirclement Pressure Control Fitting	per	each	\$5,716.00	\$5,921.20	3.59%
20	8" - Tap & Stop - Full Encirclement Pressure Control Fitting	per	each	\$6,918.00	\$7,166.36	3.59%
21	10" - Tap & Stop - Full Encirclement Pressure Control Fitting	per	each	\$8,726.00	\$9,039.26	3.59%
22	12" - Tap & Stop - Full Encirclement Pressure Control Fitting	per	each	\$9,928.00	\$10,284.42	3.59%
23	Grind/Sink - 1" Steel Plate	per	sf	\$12.55	\$13.00	3.59%
24	Repair of Traffic Signal Loops	per	each	\$512.00	\$530.38	3.59%
25	Installation of Electronic Test Station	per	each	\$382.00	\$395.71	3.59%
26	Potholing - Vacuum Truck	per	hour	\$194.00	\$200.96	3.59%
27	California Department of Transportation - Tandem Construction Permit	per	each	\$862.00	\$892.95	3.59%
28	Mobilization Charge/Remobilization - Pipe Installation ≥ 500'	per	each	\$6,479.00	\$6,711.60	3.59%
29	Mobilization Charge/Remobilization - Pipe Installation 100' - 499'	per	each	\$5,278.00	\$5,467.48	3.59%
30	Mobilization Charge/Remobilization - Pipe Installation ≤ 99'	per	each	\$4,285.00	\$4,438.83	3.59%

STEEL MAIN ABANDONMENT					
Pavement Asphalt - x ≤ 5" thick					
No.	Pipe Size	Linear Foot	Unit Price	New Price	% Increase
1	4" (\$ / lin. Ft.)	1' - 300'	\$25.95	\$26.88	3.59%
2	4" (\$ / lin. Ft.)	301' - 1000'	\$9.80	\$10.15	3.59%
3	4" (\$ / lin. Ft.)	1001' - 3000'	\$7.10	\$7.35	3.59%
4	4" (\$ / lin. Ft.)	3001' - +	\$4.50	\$4.66	3.59%
5	6" (\$ / lin. Ft.)	1' - 300'	\$152.30	\$157.77	3.59%
6	6" (\$ / lin. Ft.)	301' - 1000'	\$61.15	\$63.35	3.59%
7	6" (\$ / lin. Ft.)	1001' - 3000'	\$43.60	\$45.17	3.59%
8	6" (\$ / lin. Ft.)	3001' - +	\$30.60	\$31.70	3.59%
9	8" (\$ / lin. Ft.)	1' - 300'	\$166.70	\$172.68	3.59%
10	8" (\$ / lin. Ft.)	301' - 1000'	\$65.50	\$67.85	3.59%
11	8" (\$ / lin. Ft.)	1001' - 3000'	\$45.75	\$47.39	3.59%
12	8" (\$ / lin. Ft.)	3001' - +	\$33.85	\$35.07	3.59%
13	10" (\$ / lin. Ft.)	1' - 300'	\$178.70	\$185.12	3.59%
14	10" (\$ / lin. Ft.)	301' - 1000'	\$73.40	\$76.04	3.59%
15	10" (\$ / lin. Ft.)	1001' - 3000'	\$54.45	\$56.40	3.59%
16	10" (\$ / lin. Ft.)	3001' - +	\$38.25	\$39.62	3.59%
17	12" (\$ / lin. Ft.)	1' - 300'	\$194.00	\$200.96	3.59%
18	12" (\$ / lin. Ft.)	301' - 1000'	\$79.75	\$82.61	3.59%
19	12" (\$ / lin. Ft.)	1001' - 3000'	\$58.20	\$60.29	3.59%
20	12" (\$ / lin. Ft.)	3001' - +	\$42.75	\$44.28	3.59%
21	14" (\$ / lin. Ft.)	1' - 300'	\$206.00	\$213.40	3.59%
22	14" (\$ / lin. Ft.)	301' - 1000'	\$84.55	\$87.59	3.59%
23	14" (\$ / lin. Ft.)	1001' - 3000'	\$62.05	\$64.28	3.59%
24	14" (\$ / lin. Ft.)	3001' - +	\$46.75	\$48.43	3.59%
25	16" (\$ / lin. Ft.)	1' - 300'	\$217.15	\$224.95	3.59%
26	16" (\$ / lin. Ft.)	301' - 1000'	\$88.10	\$91.26	3.59%
27	16" (\$ / lin. Ft.)	1001' - 3000'	\$65.95	\$68.32	3.59%
28	16" (\$ / lin. Ft.)	3001' - +	\$49.75	\$51.54	3.59%
29	18" (\$ / lin. Ft.)	1' - 300'	\$230.95	\$239.24	3.59%
30	18" (\$ / lin. Ft.)	301' - 1000'	\$94.25	\$97.63	3.59%
31	18" (\$ / lin. Ft.)	1001' - 3000'	\$68.45	\$70.91	3.59%
32	18" (\$ / lin. Ft.)	3001' - +	\$54.15	\$56.09	3.59%
33	20" (\$ / lin. Ft.)	1' - 300'	\$243.50	\$252.24	3.59%
34	20" (\$ / lin. Ft.)	301' - 1000'	\$97.70	\$101.21	3.59%
35	20" (\$ / lin. Ft.)	1001' - 3000'	\$72.85	\$75.47	3.59%
36	20" (\$ / lin. Ft.)	3001' - +	\$57.05	\$59.10	3.59%

STEEL MAIN ABANDONMENT					
Pavement Asphalt - 5" < x ≤ 7" thick					
	Pipe Size	Linear Foot	Unit Price	New Price	% Inc
1	4" (\$ / lin. Ft.)	1' - 300'	\$26.25	\$27.19	3.59%
2	4" (\$ / lin. Ft.)	301' - 1000'	\$10.00	\$10.36	3.59%
3	4" (\$ / lin. Ft.)	1001' - 3000'	\$7.25	\$7.51	3.59%
4	4" (\$ / lin. Ft.)	3001' - +	\$4.65	\$4.82	3.59%
5	6" (\$ / lin. Ft.)	1' - 300'	\$153.90	\$159.43	3.59%
6	6" (\$ / lin. Ft.)	301' - 1000'	\$62.15	\$64.38	3.59%
7	6" (\$ / lin. Ft.)	1001' - 3000'	\$44.30	\$45.89	3.59%
8	6" (\$ / lin. Ft.)	3001' - +	\$31.20	\$32.32	3.59%
9	8" (\$ / lin. Ft.)	1' - 300'	\$169.30	\$175.38	3.59%
10	8" (\$ / lin. Ft.)	301' - 1000'	\$66.70	\$69.09	3.59%
11	8" (\$ / lin. Ft.)	1001' - 3000'	\$46.75	\$48.43	3.59%
12	8" (\$ / lin. Ft.)	3001' - +	\$34.75	\$36.00	3.59%
13	10" (\$ / lin. Ft.)	1' - 300'	\$181.20	\$187.71	3.59%
14	10" (\$ / lin. Ft.)	301' - 1000'	\$74.85	\$77.54	3.59%
15	10" (\$ / lin. Ft.)	1001' - 3000'	\$55.55	\$57.54	3.59%
16	10" (\$ / lin. Ft.)	3001' - +	\$39.10	\$40.50	3.59%
17	12" (\$ / lin. Ft.)	1' - 300'	\$196.05	\$203.09	3.59%
18	12" (\$ / lin. Ft.)	301' - 1000'	\$81.25	\$84.17	3.59%
19	12" (\$ / lin. Ft.)	1001' - 3000'	\$59.45	\$61.58	3.59%
20	12" (\$ / lin. Ft.)	3001' - +	\$43.85	\$45.42	3.59%
21	14" (\$ / lin. Ft.)	1' - 300'	\$208.50	\$215.99	3.59%
22	14" (\$ / lin. Ft.)	301' - 1000'	\$86.25	\$89.35	3.59%
23	14" (\$ / lin. Ft.)	1001' - 3000'	\$63.35	\$65.62	3.59%
24	14" (\$ / lin. Ft.)	3001' - +	\$47.95	\$49.67	3.59%
25	16" (\$ / lin. Ft.)	1' - 300'	\$219.85	\$227.74	3.59%
26	16" (\$ / lin. Ft.)	301' - 1000'	\$89.75	\$92.97	3.59%
27	16" (\$ / lin. Ft.)	1001' - 3000'	\$67.30	\$69.72	3.59%
28	16" (\$ / lin. Ft.)	3001' - +	\$50.75	\$52.57	3.59%
29	18" (\$ / lin. Ft.)	1' - 300'	\$234.60	\$243.02	3.59%
30	18" (\$ / lin. Ft.)	301' - 1000'	\$96.25	\$99.71	3.59%
31	18" (\$ / lin. Ft.)	1001' - 3000'	\$69.90	\$72.41	3.59%
32	18" (\$ / lin. Ft.)	3001' - +	\$55.65	\$57.65	3.59%
33	20" (\$ / lin. Ft.)	1' - 300'	\$246.60	\$255.45	3.59%
34	20" (\$ / lin. Ft.)	301' - 1000'	\$99.20	\$102.76	3.59%
35	20" (\$ / lin. Ft.)	1001' - 3000'	\$74.40	\$77.07	3.59%
36	20" (\$ / lin. Ft.)	3001' - +	\$58.30	\$60.39	3.59%

STEEL MAIN ABANDONMENT					
Pavement Asphalt - 7" < x ≤ 9" thick					
	Pipe Size	Linear Foot	Unit Price	New Price	% Increase
1	4" (\$ / lin. Ft.)	1' - 300'	\$26.85	\$27.81	3.59%
2	4" (\$ / lin. Ft.)	301' - 1000'	\$10.25	\$10.62	3.59%
3	4" (\$ / lin. Ft.)	1001' - 3000'	\$7.60	\$7.87	3.59%
4	4" (\$ / lin. Ft.)	3001' - +	\$4.95	\$5.13	3.59%
5	6" (\$ / lin. Ft.)	1' - 300'	\$156.35	\$161.96	3.59%
6	6" (\$ / lin. Ft.)	301' - 1000'	\$63.55	\$65.83	3.59%
7	6" (\$ / lin. Ft.)	1001' - 3000'	\$45.25	\$46.87	3.59%
8	6" (\$ / lin. Ft.)	3001' - +	\$32.15	\$33.30	3.59%
9	8" (\$ / lin. Ft.)	1' - 300'	\$171.60	\$177.76	3.59%
10	8" (\$ / lin. Ft.)	301' - 1000'	\$68.15	\$70.60	3.59%
11	8" (\$ / lin. Ft.)	1001' - 3000'	\$47.85	\$49.57	3.59%
12	8" (\$ / lin. Ft.)	3001' - +	\$35.70	\$36.98	3.59%
13	10" (\$ / lin. Ft.)	1' - 300'	\$183.90	\$190.50	3.59%
14	10" (\$ / lin. Ft.)	301' - 1000'	\$76.50	\$79.25	3.59%
15	10" (\$ / lin. Ft.)	1001' - 3000'	\$56.85	\$58.89	3.59%
16	10" (\$ / lin. Ft.)	3001' - +	\$40.00	\$41.44	3.59%
17	12" (\$ / lin. Ft.)	1' - 300'	\$198.45	\$205.57	3.59%
18	12" (\$ / lin. Ft.)	301' - 1000'	\$82.75	\$85.72	3.59%
19	12" (\$ / lin. Ft.)	1001' - 3000'	\$60.70	\$62.88	3.59%
20	12" (\$ / lin. Ft.)	3001' - +	\$44.85	\$46.46	3.59%
21	14" (\$ / lin. Ft.)	1' - 300'	\$211.40	\$218.99	3.59%
22	14" (\$ / lin. Ft.)	301' - 1000'	\$88.05	\$91.21	3.59%
23	14" (\$ / lin. Ft.)	1001' - 3000'	\$64.70	\$67.02	3.59%
24	14" (\$ / lin. Ft.)	3001' - +	\$49.05	\$50.81	3.59%
25	16" (\$ / lin. Ft.)	1' - 300'	\$222.80	\$230.80	3.59%
26	16" (\$ / lin. Ft.)	301' - 1000'	\$91.60	\$94.89	3.59%
27	16" (\$ / lin. Ft.)	1001' - 3000'	\$68.75	\$71.22	3.59%
28	16" (\$ / lin. Ft.)	3001' - +	\$52.00	\$53.87	3.59%
29	18" (\$ / lin. Ft.)	1' - 300'	\$238.05	\$246.60	3.59%
30	18" (\$ / lin. Ft.)	301' - 1000'	\$97.95	\$101.47	3.59%
31	18" (\$ / lin. Ft.)	1001' - 3000'	\$71.35	\$73.91	3.59%
32	18" (\$ / lin. Ft.)	3001' - +	\$57.05	\$59.10	3.59%
33	20" (\$ / lin. Ft.)	1' - 300'	\$249.95	\$258.92	3.59%
34	20" (\$ / lin. Ft.)	301' - 1000'	\$101.15	\$104.78	3.59%
35	20" (\$ / lin. Ft.)	1001' - 3000'	\$76.00	\$78.73	3.59%
36	20" (\$ / lin. Ft.)	3001' - +	\$59.50	\$61.64	3.59%

STEEL MAIN ABANDONMENT					
Pavement PCC - x ≤ 5" thick					
	Pipe Size	Linear Foot	Unit Price	New Price	% Inc
1	4" (\$ / lin. Ft.)	1' - 300'	\$26.45	\$27.40	3.59%
2	4" (\$ / lin. Ft.)	301' - 1000'	\$10.10	\$10.46	3.59%
3	4" (\$ / lin. Ft.)	1001' - 3000'	\$7.60	\$7.87	3.59%
4	4" (\$ / lin. Ft.)	3001' - +	\$4.90	\$5.08	3.59%
5	6" (\$ / lin. Ft.)	1' - 300'	\$154.45	\$159.99	3.59%
6	6" (\$ / lin. Ft.)	301' - 1000'	\$62.45	\$64.69	3.59%
7	6" (\$ / lin. Ft.)	1001' - 3000'	\$44.60	\$46.20	3.59%
8	6" (\$ / lin. Ft.)	3001' - +	\$31.50	\$32.63	3.59%
9	8" (\$ / lin. Ft.)	1' - 300'	\$170.85	\$176.98	3.59%
10	8" (\$ / lin. Ft.)	301' - 1000'	\$67.60	\$70.03	3.59%
11	8" (\$ / lin. Ft.)	1001' - 3000'	\$47.45	\$49.15	3.59%
12	8" (\$ / lin. Ft.)	3001' - +	\$35.75	\$37.03	3.59%
13	10" (\$ / lin. Ft.)	1' - 300'	\$182.40	\$188.95	3.59%
14	10" (\$ / lin. Ft.)	301' - 1000'	\$75.40	\$78.11	3.59%
15	10" (\$ / lin. Ft.)	1001' - 3000'	\$56.35	\$58.37	3.59%
16	10" (\$ / lin. Ft.)	3001' - +	\$39.50	\$40.92	3.59%
17	12" (\$ / lin. Ft.)	1' - 300'	\$197.15	\$204.23	3.59%
18	12" (\$ / lin. Ft.)	301' - 1000'	\$81.95	\$84.89	3.59%
19	12" (\$ / lin. Ft.)	1001' - 3000'	\$60.10	\$62.26	3.59%
20	12" (\$ / lin. Ft.)	3001' - +	\$44.50	\$46.10	3.59%
21	14" (\$ / lin. Ft.)	1' - 300'	\$209.90	\$217.44	3.59%
22	14" (\$ / lin. Ft.)	301' - 1000'	\$87.00	\$90.12	3.59%
23	14" (\$ / lin. Ft.)	1001' - 3000'	\$64.15	\$66.45	3.59%
24	14" (\$ / lin. Ft.)	3001' - +	\$48.85	\$50.60	3.59%
25	16" (\$ / lin. Ft.)	1' - 300'	\$221.55	\$229.50	3.59%
26	16" (\$ / lin. Ft.)	301' - 1000'	\$90.60	\$93.85	3.59%
27	16" (\$ / lin. Ft.)	1001' - 3000'	\$68.15	\$70.60	3.59%
28	16" (\$ / lin. Ft.)	3001' - +	\$51.75	\$53.61	3.59%
29	18" (\$ / lin. Ft.)	1' - 300'	\$236.50	\$244.99	3.59%
30	18" (\$ / lin. Ft.)	301' - 1000'	\$97.40	\$100.90	3.59%
31	18" (\$ / lin. Ft.)	1001' - 3000'	\$70.75	\$73.29	3.59%
32	18" (\$ / lin. Ft.)	3001' - +	\$56.65	\$58.68	3.59%
33	20" (\$ / lin. Ft.)	1' - 300'	\$249.25	\$258.20	3.59%
34	20" (\$ / lin. Ft.)	301' - 1000'	\$100.85	\$104.47	3.59%
35	20" (\$ / lin. Ft.)	1001' - 3000'	\$75.50	\$78.21	3.59%
36	20" (\$ / lin. Ft.)	3001' - +	\$59.30	\$61.43	3.59%

STEEL MAIN ABANDONMENT					
Pavement PCC - 5" < x ≤ 7" thick					
	Pipe Size	Linear Foot	Unit Price	New Price	% Increase
1	4" (\$ / lin. Ft.)	1' - 300'	\$27.00	\$27.97	3.59%
2	4" (\$ / lin. Ft.)	301' - 1000'	\$10.35	\$10.72	3.59%
3	4" (\$ / lin. Ft.)	1001' - 3000'	\$7.85	\$8.13	3.59%
4	4" (\$ / lin. Ft.)	3001' - +	\$5.15	\$5.33	3.59%
5	6" (\$ / lin. Ft.)	1' - 300'	\$156.95	\$162.58	3.59%
6	6" (\$ / lin. Ft.)	301' - 1000'	\$63.65	\$65.94	3.59%
7	6" (\$ / lin. Ft.)	1001' - 3000'	\$45.70	\$47.34	3.59%
8	6" (\$ / lin. Ft.)	3001' - +	\$32.40	\$33.56	3.59%
9	8" (\$ / lin. Ft.)	1' - 300'	\$173.35	\$179.57	3.59%
10	8" (\$ / lin. Ft.)	301' - 1000'	\$69.25	\$71.74	3.59%
11	8" (\$ / lin. Ft.)	1001' - 3000'	\$48.50	\$50.24	3.59%
12	8" (\$ / lin. Ft.)	3001' - +	\$36.80	\$38.12	3.59%
13	10" (\$ / lin. Ft.)	1' - 300'	\$185.15	\$191.80	3.59%
14	10" (\$ / lin. Ft.)	301' - 1000'	\$77.00	\$79.76	3.59%
15	10" (\$ / lin. Ft.)	1001' - 3000'	\$57.70	\$59.77	3.59%
16	10" (\$ / lin. Ft.)	3001' - +	\$40.50	\$41.95	3.59%
17	12" (\$ / lin. Ft.)	1' - 300'	\$199.70	\$206.87	3.59%
18	12" (\$ / lin. Ft.)	301' - 1000'	\$83.80	\$86.81	3.59%
19	12" (\$ / lin. Ft.)	1001' - 3000'	\$61.40	\$63.60	3.59%
20	12" (\$ / lin. Ft.)	3001' - +	\$45.60	\$47.24	3.59%
21	14" (\$ / lin. Ft.)	1' - 300'	\$212.65	\$220.28	3.59%
22	14" (\$ / lin. Ft.)	301' - 1000'	\$88.75	\$91.94	3.59%
23	14" (\$ / lin. Ft.)	1001' - 3000'	\$65.55	\$67.90	3.59%
24	14" (\$ / lin. Ft.)	3001' - +	\$50.40	\$52.21	3.59%
25	16" (\$ / lin. Ft.)	1' - 300'	\$224.90	\$232.97	3.59%
26	16" (\$ / lin. Ft.)	301' - 1000'	\$92.25	\$95.56	3.59%
27	16" (\$ / lin. Ft.)	1001' - 3000'	\$69.50	\$72.00	3.59%
28	16" (\$ / lin. Ft.)	3001' - +	\$53.00	\$54.90	3.59%
29	18" (\$ / lin. Ft.)	1' - 300'	\$240.10	\$248.72	3.59%
30	18" (\$ / lin. Ft.)	301' - 1000'	\$99.50	\$103.07	3.59%
31	18" (\$ / lin. Ft.)	1001' - 3000'	\$72.10	\$74.69	3.59%
32	18" (\$ / lin. Ft.)	3001' - +	\$58.10	\$60.19	3.59%
33	20" (\$ / lin. Ft.)	1' - 300'	\$253.15	\$262.24	3.59%
34	20" (\$ / lin. Ft.)	301' - 1000'	\$103.05	\$106.75	3.59%
35	20" (\$ / lin. Ft.)	1001' - 3000'	\$77.10	\$79.87	3.59%
36	20" (\$ / lin. Ft.)	3001' - +	\$60.70	\$62.88	3.59%

STEEL MAIN ABANDONMENT					
Pavement PCC - 7" < x ≤ 9"					
	Pipe Size	Linear Foot	Unit Price	New Price	% Increase
1	4" (\$ / lin. Ft.)	1' - 300'	\$27.60	\$28.59	3.59%
2	4" (\$ / lin. Ft.)	301' - 1000'	\$10.70	\$11.08	3.59%
3	4" (\$ / lin. Ft.)	1001' - 3000'	\$8.10	\$8.39	3.59%
4	4" (\$ / lin. Ft.)	3001' - +	\$5.50	\$5.70	3.59%
5	6" (\$ / lin. Ft.)	1' - 300'	\$159.45	\$165.17	3.59%
6	6" (\$ / lin. Ft.)	301' - 1000'	\$64.90	\$67.23	3.59%
7	6" (\$ / lin. Ft.)	1001' - 3000'	\$46.70	\$48.38	3.59%
8	6" (\$ / lin. Ft.)	3001' - +	\$33.70	\$34.91	3.59%
9	8" (\$ / lin. Ft.)	1' - 300'	\$175.85	\$182.16	3.59%
10	8" (\$ / lin. Ft.)	301' - 1000'	\$70.65	\$73.19	3.59%
11	8" (\$ / lin. Ft.)	1001' - 3000'	\$49.65	\$51.43	3.59%
12	8" (\$ / lin. Ft.)	3001' - +	\$37.90	\$39.26	3.59%
13	10" (\$ / lin. Ft.)	1' - 300'	\$187.90	\$194.65	3.59%
14	10" (\$ / lin. Ft.)	301' - 1000'	\$78.65	\$81.47	3.59%
15	10" (\$ / lin. Ft.)	1001' - 3000'	\$58.85	\$60.96	3.59%
16	10" (\$ / lin. Ft.)	3001' - +	\$41.45	\$42.94	3.59%
17	12" (\$ / lin. Ft.)	1' - 300'	\$202.70	\$209.98	3.59%
18	12" (\$ / lin. Ft.)	301' - 1000'	\$85.45	\$88.52	3.59%
19	12" (\$ / lin. Ft.)	1001' - 3000'	\$62.80	\$65.05	3.59%
20	12" (\$ / lin. Ft.)	3001' - +	\$46.80	\$48.48	3.59%
21	14" (\$ / lin. Ft.)	1' - 300'	\$215.55	\$223.29	3.59%
22	14" (\$ / lin. Ft.)	301' - 1000'	\$90.40	\$93.65	3.59%
23	14" (\$ / lin. Ft.)	1001' - 3000'	\$67.05	\$69.46	3.59%
24	14" (\$ / lin. Ft.)	3001' - +	\$51.60	\$53.45	3.59%
25	16" (\$ / lin. Ft.)	1' - 300'	\$229.10	\$237.32	3.59%
26	16" (\$ / lin. Ft.)	301' - 1000'	\$94.15	\$97.53	3.59%
27	16" (\$ / lin. Ft.)	1001' - 3000'	\$70.95	\$73.50	3.59%
28	16" (\$ / lin. Ft.)	3001' - +	\$54.25	\$56.20	3.59%
29	18" (\$ / lin. Ft.)	1' - 300'	\$242.55	\$251.26	3.59%
30	18" (\$ / lin. Ft.)	301' - 1000'	\$101.45	\$105.09	3.59%
31	18" (\$ / lin. Ft.)	1001' - 3000'	\$73.55	\$76.19	3.59%
32	18" (\$ / lin. Ft.)	3001' - +	\$59.40	\$61.53	3.59%
33	20" (\$ / lin. Ft.)	1' - 300'	\$256.55	\$265.76	3.59%
34	20" (\$ / lin. Ft.)	301' - 1000'	\$105.00	\$108.77	3.59%
35	20" (\$ / lin. Ft.)	1001' - 3000'	\$78.70	\$81.53	3.59%
36	20" (\$ / lin. Ft.)	3001' - +	\$62.05	\$64.28	3.59%

STEEL MAIN INSTALLATION

Pavement Asphalt - x ≤ 5" thick						
No.	Pipe Size	Linear Foot	Unit Price	Contractor Crew Size	New Price	% Inc
1	8" (\$ / lin. Ft.)	1' - 300'	\$529.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$547.99	3.59%
2	8" (\$ / lin. Ft.)	301' - 1000'	\$217.25	1 Foreman, 1 Welder, 1 Backhoe, 4 Laborers, + Vehicles	\$225.05	3.59%
3	8" (\$ / lin. Ft.)	1001' - 3000'	\$170.25	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$176.36	3.59%
4	8" (\$ / lin. Ft.)	3000' - +	\$147.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$152.80	3.59%
5	12" (\$ / lin. Ft.)	1' - 300'	\$654.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$677.48	3.59%
6	12" (\$ / lin. Ft.)	301' - 1000'	\$284.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$294.20	3.59%
7	12" (\$ / lin. Ft.)	1001' - 3000'	\$225.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$233.08	3.59%
8	12" (\$ / lin. Ft.)	3000' - +	\$198.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$205.11	3.59%
9	16" (\$ / lin. Ft.)	1' - 300'	\$1,053.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$1,090.80	3.59%
10	16" (\$ / lin. Ft.)	301' - 1000'	\$433.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom 4 Laborers, + Vehicles	\$448.54	3.59%
11	16" (\$ / lin. Ft.)	1001' - 3000'	\$361.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$373.96	3.59%
12	16" (\$ / lin. Ft.)	3000' - +	\$327.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$338.74	3.59%

Note:

- Light to Medium soil, excavation using backhoe
- Pipe Installation includes saw cutting, pavement and soil excavation and haul off up to 5' depth, shoring, backfill and final paving
- Include steel (non-skid) trench plates, appropriate size pipe rollers and assume pipe joints ≥ 30'
- Pre-inspection and job scheduling
- Disconnecting, abandoning, by-passing, and purging of associated pipelines
- USA marking, layout, scheduling, traffic control devices (signs, barricades, delineators, arrow boards, etc...)
- Compaction to 95% and shade pipe 12" above
- Bell holes, main tie-ins, main tie-overs
- Pressure testing and gas handling operations
- Clean up and all other work required for gas pipe installation
- Based on 40 hour work week (5 days - 8 hour or 4 days - 10 hours)
- Steel pipe installed per Specification G228S
- Assume 1 full pipestring
- Assume 11° exit and entrance angle
- Contractor shall provide the following
 - 1) drill rig
 - 2) vacuum truck
 - 3) support equipment
 - 4) all pulling heads for pipe
 - 5) haul-off and disposal of excess drilling fluids

STEEL MAIN INSTALLATION

Pavement Asphalt - 5" < x ≤ 7" thick						
No.	Pipe Size	Linear Foot	Unit Price	Contractor Crew Size	New Price	% Inc
1	8" (\$ / lin. Ft.)	1' - 300'	\$534.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$553.17	3.59%
2	8" (\$ / lin. Ft.)	301' - 1000'	\$220.50	1 Foreman, 1 Welder, 1 Backhoe, 4 Laborers, + Vehicles	\$228.42	3.59%
3	8" (\$ / lin. Ft.)	1001' - 3000'	\$172.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$178.69	3.59%
4	8" (\$ / lin. Ft.)	3000' - +	\$149.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$154.87	3.59%
5	12" (\$ / lin. Ft.)	1' - 300'	\$660.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$683.69	3.59%
6	12" (\$ / lin. Ft.)	301' - 1000'	\$288.25	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$298.60	3.59%
7	12" (\$ / lin. Ft.)	1001' - 3000'	\$228.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$236.19	3.59%
8	12" (\$ / lin. Ft.)	3000' - +	\$199.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$206.66	3.59%
9	16" (\$ / lin. Ft.)	1' - 300'	\$1,063.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$1,101.16	3.59%
10	16" (\$ / lin. Ft.)	301' - 1000'	\$438.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom 4 Laborers, + Vehicles	\$453.72	3.59%
11	16" (\$ / lin. Ft.)	1001' - 3000'	\$366.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$379.14	3.59%
12	16" (\$ / lin. Ft.)	3000' - +	\$331.25	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$343.14	3.59%

Note:

- Light to Medium soil, excavation using backhoe
- Pipe Installation includes saw cutting, pavement and soil excavation and haul off up to 5' depth, shoring, backfill and final paving
- Include steel (non-skid) trench plates, appropriate size pipe rollers and assume pipe joints ≥ 30'
- Pre-inspection and job scheduling
- Disconnecting, abandoning, by-passing, and purging of associated pipelines
- USA marking, layout, scheduling, traffic control devices (signs, barricades, delineators, arrow boards, etc...)
- Compaction to 95% and shade pipe 12" above
- Bell holes, main tie-ins, main tie-overs
- Pressure testing and gas handling operations
- Clean up and all other work required for gas pipe installation
- Based on 40 hour work week (5 days - 8 hour or 4 days - 10 hours)
- Steel pipe installed per Specification G228S
- Assume 1 full pipestring
- Assume 11° exit and entrance angle
- Contractor shall provide the following
 - 1) drill rig
 - 2) vacuum truck
 - 3) support equipment
 - 4) all pulling heads for pipe
 - 5) haul-off and disposal of excess drilling fluids

STEEL MAIN INSTALLATION

Method of Installation - HDD
Pavement Asphalt - 7" < x ≤ 9" thick

No.	Pipe Size	Linear Foot	Unit Price	Contractor Crew Size	New Price	% Inc.
1	8" (\$ / lin. Ft.)	1' - 300'	\$539.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$558.35	3.59%
2	8" (\$ / lin. Ft.)	301' - 1000'	\$223.50	1 Foreman, 1 Welder, 1 Backhoe, 4 Laborers, + Vehicles	\$231.52	3.59%
3	8" (\$ / lin. Ft.)	1001' - 3000'	\$174.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$180.76	3.59%
4	8" (\$ / lin. Ft.)	3000' - +	\$151.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$156.94	3.59%
5	12" (\$ / lin. Ft.)	1' - 300'	\$666.75	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$690.69	3.59%
6	12" (\$ / lin. Ft.)	301' - 1000'	\$292.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$303.00	3.59%
7	12" (\$ / lin. Ft.)	1001' - 3000'	\$231.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$239.29	3.59%
8	12" (\$ / lin. Ft.)	3000' - +	\$202.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$209.25	3.59%
9	16" (\$ / lin. Ft.)	1' - 300'	\$1,072.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$1,110.48	3.59%
10	16" (\$ / lin. Ft.)	301' - 1000'	\$443.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom 4 Laborers, + Vehicles	\$458.90	3.59%
11	16" (\$ / lin. Ft.)	1001' - 3000'	\$371.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$384.32	3.59%
12	16" (\$ / lin. Ft.)	3000' - +	\$335.50	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$347.54	3.59%

STEEL MAIN INSTALLATION

Method of Installation - HDD

Pavement PCC - x ≤ 5" thick

No.	Pipe Size	Linear Foot	Unit Price	Contractor Crew Size	New Price	% Inc.
1	8" (\$ / lin. Ft.)	1' - 300'	\$537.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$556.28	3.59%
2	8" (\$ / lin. Ft.)	301' - 1000'	\$221.50	1 Foreman, 1 Welder, 1 Backhoe, 4 Laborers, + Vehicles	\$229.45	3.59%
3	8" (\$ / lin. Ft.)	1001' - 3000'	\$173.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$179.73	3.59%
4	8" (\$ / lin. Ft.)	3000' - +	\$150.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$155.90	3.59%
5	12" (\$ / lin. Ft.)	1' - 300'	\$662.50	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$686.28	3.59%
6	12" (\$ / lin. Ft.)	301' - 1000'	\$289.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$299.89	3.59%
7	12" (\$ / lin. Ft.)	1001' - 3000'	\$229.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$237.22	3.59%
8	12" (\$ / lin. Ft.)	3000' - +	\$200.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$207.70	3.59%
9	16" (\$ / lin. Ft.)	1' - 300'	\$1,068.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$1,106.34	3.59%
10	16" (\$ / lin. Ft.)	301' - 1000'	\$440.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom 4 Laborers, + Vehicles	\$455.80	3.59%
11	16" (\$ / lin. Ft.)	1001' - 3000'	\$367.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$380.18	3.59%
12	16" (\$ / lin. Ft.)	3000' - +	\$332.25	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$344.18	3.59%

STEEL MAIN INSTALLATIONMethod of Installation - HDD
Pavement PCC - 5" < x ≤ 7" thick

No.	Pipe Size	Linear Foot	Unit Price	Contractor Crew Size	New Price	% Inc.
1	8" (\$ / lin. Ft.)	1' - 300'	\$542.50	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$561.98	3.59%
2	8" (\$ / lin. Ft.)	301' - 1000'	\$224.75	1 Foreman, 1 Welder, 1 Backhoe, 4 Laborers, + Vehicles	\$232.82	3.59%
3	8" (\$ / lin. Ft.)	1001' - 3000'	\$175.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$181.80	3.59%
4	8" (\$ / lin. Ft.)	3000' - +	\$152.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$157.97	3.59%
5	12" (\$ / lin. Ft.)	1' - 300'	\$669.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$693.02	3.59%
6	12" (\$ / lin. Ft.)	301' - 1000'	\$294.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$304.55	3.59%
7	12" (\$ / lin. Ft.)	1001' - 3000'	\$232.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$240.33	3.59%
8	12" (\$ / lin. Ft.)	3000' - +	\$204.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$211.32	3.59%
9	16" (\$ / lin. Ft.)	1' - 300'	\$1,077.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$1,115.66	3.59%
10	16" (\$ / lin. Ft.)	301' - 1000'	\$446.25	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom 4 Laborers, + Vehicles	\$462.27	3.59%
11	16" (\$ / lin. Ft.)	1001' - 3000'	\$372.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$385.35	3.59%
12	16" (\$ / lin. Ft.)	3000' - +	\$336.50	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$348.58	3.59%

Note:

- Light to Medium soil, excavation using backhoe
- Pipe Installation includes saw cutting, pavement and soil excavation and haul off up to 5' depth, shoring, backfill and final paving
- Include steel (non-skid) trench plates, appropriate size pipe rollers
- Assume random double pipe joints
- Pre-inspection and job scheduling
- Disconnecting, abandoning, by-passing, and purging of associated pipelines
- USA marking, layout, scheduling, traffic control devices (signs, barricades, delineators, arrow boards, etc...)
- Compaction to 95% and shade pipe 12" above
- Bell holes, main tie-ins, main tie-overs
- Pressure testing and gas handling operations
- Clean up and all other work required for gas pipe installation
- Based on 40 hour work week (5 days - 8 hour or 4 days - 10 hours)
- Steel pipe installed per Specification G228S
- Assume 1 full pipestring
- Assume 11° exit and entrance angle
- Contractor shall provide the following
 - 1) drill rig
 - 2) vacuum truck
 - 3) support equipment
 - 4) all pulling heads for pipe
 - 5) haul-off and disposal of excess drilling fluids

STEEL MAIN INSTALLATION

Method of Installation - HDD

Pavement PCC - 7" < x ≤ 9"

No.	Pipe Size	Linear Foot	Unit Price	Contractor Crew Size	New Price	% Inc
1	8" (\$ / lin. Ft.)	1' - 300'	\$548.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$567.67	3.59%
2	8" (\$ / lin. Ft.)	301' - 1000'	\$228.00	1 Foreman, 1 Welder, 1 Backhoe, 4 Laborers, + Vehicles	\$236.19	3.59%
3	8" (\$ / lin. Ft.)	1001' - 3000'	\$178.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$184.39	3.59%
4	8" (\$ / lin. Ft.)	3000' - +	\$155.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$160.56	3.59%
5	12" (\$ / lin. Ft.)	1' - 300'	\$675.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$699.23	3.59%
6	12" (\$ / lin. Ft.)	301' - 1000'	\$298.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$308.70	3.59%
7	12" (\$ / lin. Ft.)	1001' - 3000'	\$235.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$243.44	3.59%
8	12" (\$ / lin. Ft.)	3000' - +	\$207.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$214.43	3.59%
9	16" (\$ / lin. Ft.)	1' - 300'	\$1,087.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$1,126.02	3.59%
10	16" (\$ / lin. Ft.)	301' - 1000'	\$452.50	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom 4 Laborers, + Vehicles	\$468.74	3.59%
11	16" (\$ / lin. Ft.)	1001' - 3000'	\$377.25	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$390.79	3.59%
12	16" (\$ / lin. Ft.)	3000' - +	\$341.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$353.24	3.59%

Note:

- Light to Medium soil, excavation using backhoe
- Pipe Installation includes saw cutting, pavement and soil excavation and haul off up to 5' depth, shoring, backfill and final paving
- Include steel (non-skid) trench plates, appropriate size pipe rollers
- Assume random double pipe joints
- Pre-inspection and job scheduling
- Disconnecting, abandoning, by-passing, and purging of associated pipelines
- USA marking, layout, scheduling, traffic control devices (signs, barricades, delineators, arrow boards, etc...)
- Compaction to 95% and shade pipe 12" above
- Bell holes, main tie-ins, main tie-overs
- Pressure testing and gas handling operations
- Clean up and all other work required for gas pipe installation
- Based on 40 hour work week (5 days - 8 hour or 4 days - 10 hours)
- Steel pipe installed per Specification G228S
- Assume 1 full pipestring
- Assume 11° exit and entrance angle
- Contractor shall provide the following
 - 1) drill rig
 - 2) vacuum truck
 - 3) support equipment
 - 4) all pulling heads for pipe
 - 5) haul-off and disposal of excess drilling fluids

STEEL MAIN INSTALLATION						
Method of Installation - Open Trench Pavement Asphalt - x ≤ 5" thick						
No.	Pipe Size	Linear Foot	Unit Price	Contractor Crew Size	New Price	% Inc
1	8" (\$ / lin. Ft.)	1' - 300'	\$420.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$435.08	3.59%
2	8" (\$ / lin. Ft.)	301'-1000'	\$238.25	1 Foreman, 1 Welder, 1 Backhoe, 4 Laborers, + Vehicles	\$246.80	3.59%
3	8" (\$ / lin. Ft.)	1001' - 3000'	\$166.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$171.96	3.59%
4	8" (\$ / lin. Ft.)	3000' - +	\$160.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$165.74	3.59%
5	12" (\$ / lin. Ft.)	1' - 300'	\$467.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$483.77	3.59%
6	12" (\$ / lin. Ft.)	301'-1000'	\$292.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$302.48	3.59%
7	12" (\$ / lin. Ft.)	1001' - 3000'	\$230.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$238.26	3.59%
8	12" (\$ / lin. Ft.)	3000' - +	\$213.25	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$220.91	3.59%
9	16" (\$ / lin. Ft.)	1' - 300'	\$880.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$911.59	3.59%
10	16" (\$ / lin. Ft.)	301'-1000'	\$428.50	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom 4 Laborers, + Vehicles	\$443.88	3.59%
11	16" (\$ / lin. Ft.)	1001' - 3000'	\$316.50	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$327.86	3.59%
12	16" (\$ / lin. Ft.)	3000' - +	\$290.50	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$300.93	3.59%

STEEL MANUFACTURING						
Method of Installation - Open Trench Pavement Asphalt - 5" < x ≤ 7" thick						
No.	Pipe Size	Linear Foot	Unit Price	Contractor Crew Size	New Price	% Inc
1	8" (\$ / lin. Ft.)	1' - 300'	\$426.50	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$441.81	3.59%
2	8" (\$ / lin. Ft.)	301'-1000'	\$241.50	1 Foreman, 1 Welder, 1 Backhoe, 4 Laborers, + Vehicles	\$250.17	3.59%
3	8" (\$ / lin. Ft.)	1001' - 3000'	\$168.25	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$174.29	3.59%
4	8" (\$ / lin. Ft.)	3000' - +	\$162.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$167.82	3.59%
5	12" (\$ / lin. Ft.)	1' - 300'	\$474.50	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$491.53	3.59%
6	12" (\$ / lin. Ft.)	301'-1000'	\$295.75	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$306.37	3.59%
7	12" (\$ / lin. Ft.)	1001' - 3000'	\$233.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$241.36	3.59%
8	12" (\$ / lin. Ft.)	3000' - +	\$216.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$224.27	3.59%
9	16" (\$ / lin. Ft.)	1' - 300'	\$893.50	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$925.58	3.59%
10	16" (\$ / lin. Ft.)	301'-1000'	\$434.75	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom 4 Laborers, + Vehicles	\$450.36	3.59%
11	16" (\$ / lin. Ft.)	1001' - 3000'	\$322.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$333.56	3.59%
12	16" (\$ / lin. Ft.)	3000' - +	\$295.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$305.59	3.59%

Note:

- Light to Medium soil, excavation using backhoe
- Pipe Installation includes saw cutting, pavement and soil excavation and haul off up to 5' depth, shoring, backfill and final paving
- Include steel (non-skid) trench plates and assume x ≥ 30' pipe joints
- Assume random double pipe joints
- Pre-inspection and job scheduling
- Disconnecting, abandoning, by-passing, and purging of associated pipelines
- USA marking, layout, scheduling, traffic control devices (signs, barricades, delineator, arrow boards, etc...)
- Compaction to 95% and shade pipe 12" above
- Bell holes, main tie-ins, main tie-overs
- Pressure testing and gas handling operations
- Include Labor for gas-up operations
- Clean up and all other work required for gas pipe installation
- Based on 40 hour work week (5 days - 8 hour or 4 days - 10 hour)
- Steel pipe to be installed per Specification G228S
- Fitting Installation for Gas Handling see PC Fittings
- All arterial street crossings shall be measured from property line to property line

STEEL MAIN INSTALLATION						
Method of Installation - Open Trench Pavement Asphalt - 7" < x ≤ 9" thick						
No.	Pipe Size	Linear Foot	Unit Price	Contractor Crew Size	New Price	% Inc
1	8" (\$ / lin. Ft.)	1' - 300'	\$433.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$448.54	3.59%
2	8" (\$ / lin. Ft.)	301'-1000'	\$244.50	1 Foreman, 1 Welder, 1 Backhoe, 4 Laborers, + Vehicles	\$253.28	3.59%
3	8" (\$ / lin. Ft.)	1001' - 3000'	\$170.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$176.62	3.59%
4	8" (\$ / lin. Ft.)	3000' - +	\$164.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$169.89	3.59%
5	12" (\$ / lin. Ft.)	1' - 300'	\$481.75	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$499.04	3.59%
6	12" (\$ / lin. Ft.)	301'-1000'	\$300.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$310.77	3.59%
7	12" (\$ / lin. Ft.)	1001' - 3000'	\$236.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$244.47	3.59%
8	12" (\$ / lin. Ft.)	3000' - +	\$219.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$227.38	3.59%
9	16" (\$ / lin. Ft.)	1' - 300'	\$907.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$939.56	3.59%
10	16" (\$ / lin. Ft.)	301'-1000'	\$441.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom 4 Laborers, + Vehicles	\$456.83	3.59%
11	16" (\$ / lin. Ft.)	1001' - 3000'	\$327.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$338.74	3.59%
12	16" (\$ / lin. Ft.)	3000' - +	\$299.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$309.73	3.59%

Note:

- Light to Medium soil, excavation using backhoe
- Pipe Installation includes saw cutting, pavement and soil excavation and haul off up to 5' depth, shoring, backfill and final paving
- Include steel (non-skid) trench plates and assume x ≥ 30' pipe joints
- Assume random double pipe joints
- Pre-inspection and job scheduling
- Disconnecting, abandoning, by-passing, and purging of associated pipelines
- USA marking, layout, scheduling, traffic control devices (signs, barricades, delineator, arrow boards, etc...)
- Compaction to 95% and shade pipe 12" above
- Bell holes, main tie-ins, main tie-overs
- Pressure testing and gas handling operations
- Include Labor for gas-up operations
- Clean up and all other work required for gas pipe installation
- Based on 40 hour work week (5 days - 8 hour or 4 days - 10 hour)
- Steel pipe to be installed per Specification G228S
- Fitting Installation for Gas Handling see PC Fittings
- All arterial street crossings shall be measured from property line to property line

STEEL MAIN INSTALLATION						
Method of Installation - Open Trench Pavement PCC - x ≤ 5" thick						
No.	Pipe Size	Linear Foot	Unit Price	Contractor Crew Size	New Price	% Inc
1	8" (\$ / lin. Ft.)	1' - 300'	\$425.50	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$440.78	3.59%
2	8" (\$ / lin. Ft.)	301'-1000'	\$241.50	1 Foreman, 1 Welder, 1 Backhoe, 4 Laborers, + Vehicles	\$250.17	3.59%
3	8" (\$ / lin. Ft.)	1001' - 3000'	\$168.25	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$174.29	3.59%
4	8" (\$ / lin. Ft.)	3000' - +	\$162.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$167.82	3.59%
5	12" (\$ / lin. Ft.)	1' - 300'	\$471.50	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$488.43	3.59%
6	12" (\$ / lin. Ft.)	301'-1000'	\$295.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$305.59	3.59%
7	12" (\$ / lin. Ft.)	1001' - 3000'	\$232.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$240.33	3.59%
8	12" (\$ / lin. Ft.)	3000' - +	\$215.25	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$222.98	3.59%
9	16" (\$ / lin. Ft.)	1' - 300'	\$888.25	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$920.14	3.59%
10	16" (\$ / lin. Ft.)	301'-1000'	\$433.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom 4 Laborers, + Vehicles	\$448.54	3.59%
11	16" (\$ / lin. Ft.)	1001' - 3000'	\$320.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$331.49	3.59%
12	16" (\$ / lin. Ft.)	3000' - +	\$294.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$304.55	3.59%

Note:

- Light to Medium soil, excavation using backhoe
- Pipe Installation includes saw cutting, pavement and soil excavation and haul off up to 5' depth, shoring, backfill and final paving
- Include steel (non-skid) trench plates and assume x ≥ 30' pipe joints
- Assume random double pipe joints
- Pre-inspection and job scheduling
- Disconnecting, abandoning, by-passing, and purging of associated pipelines
- USA marking, layout, scheduling, traffic control devices (signs, barricades, delineator, arrow boards, etc...)
- Compaction to 95% and shade pipe 12" above
- Bell holes, main tie-ins, main tie-overs
- Pressure testing and gas handling operations
- Include Labor for gas-up operations
- Clean up and all other work required for gas pipe installation
- Based on 40 hour work week (5 days - 8 hour or 4 days - 10 hour)
- Steel pipe to be installed per Specification G228S
- Fitting Installation for Gas Handling see PC Fittings
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STEEL MAIN INSTALLATION						
Method of Installation - Open Trench Pavement PCC - 5" < x ≤ 7" thick						
No.	Pipe Size	Linear Foot	Unit Price	Contractor Crew Size	New Price	% Inc
1	8" (\$ / lin. Ft.)	1' - 300'	\$434.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$449.58	3.59%
2	8" (\$ / lin. Ft.)	301'-1000'	\$247.00	1 Foreman, 1 Welder, 1 Backhoe, 4 Laborers, + Vehicles	\$255.87	3.59%
3	8" (\$ / lin. Ft.)	1001' - 3000'	\$171.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$177.66	3.59%
4	8" (\$ / lin. Ft.)	3000' - +	\$165.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$170.92	3.59%
5	12" (\$ / lin. Ft.)	1' - 300'	\$481.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$498.27	3.59%
6	12" (\$ / lin. Ft.)	301'-1000'	\$301.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$311.81	3.59%
7	12" (\$ / lin. Ft.)	1001' - 3000'	\$236.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$244.47	3.59%
8	12" (\$ / lin. Ft.)	3000' - +	\$219.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$227.38	3.59%
9	16" (\$ / lin. Ft.)	1' - 300'	\$906.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$938.53	3.59%
10	16" (\$ / lin. Ft.)	301'-1000'	\$441.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom 4 Laborers, + Vehicles	\$456.83	3.59%
11	16" (\$ / lin. Ft.)	1001' - 3000'	\$326.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$337.70	3.59%
12	16" (\$ / lin. Ft.)	3000' - +	\$300.00	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$310.77	3.59%

Note:

- Light to Medium soil, excavation using backhoe
- Pipe Installation includes saw cutting, pavement and soil excavation and haul off up to 5' depth, shoring, backfill and final paving
- Include steel (non-skid) trench plates and assume x ≥ 30' pipe joints
- Assume random double pipe joints
- Pre-inspection and job scheduling
- Disconnecting, abandoning, by-passing, and purging of associated pipelines
- USA marking, layout, scheduling, traffic control devices (signs, barricades, delineator, arrow boards, etc...)
- Compaction to 95% and shade pipe 12" above
- Bell holes, main tie-ins, main tie-overs
- Pressure testing and gas handling operations
- Include Labor for gas-up operations
- Clean up and all other work required for gas pipe installation
- Based on 40 hour work week (5 days - 8 hour or 4 days - 10 hour)
- Steel pipe to be installed per Specification G228S
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STEEL MAIN INSTALLATION						
Method of Installation - Open Trench Pavement PCC - 7" < x ≤ 9"						
No.	Pipe Size	Linear Foot	Unit Price	Contractor Crew Size	New Price	% Inc
1	8" (\$ / lin. Ft.)	1' - 300'	\$442.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$457.87	3.59%
2	8" (\$ / lin. Ft.)	301'-1000'	\$252.00	1 Foreman, 1 Welder, 1 Backhoe, 4 Laborers, + Vehicles	\$261.05	3.59%
3	8" (\$ / lin. Ft.)	1001' - 3000'	\$175.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$181.28	3.59%
4	8" (\$ / lin. Ft.)	3000' - +	\$168.25	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$174.29	3.59%
5	12" (\$ / lin. Ft.)	1' - 300'	\$490.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$507.59	3.59%
6	12" (\$ / lin. Ft.)	301'-1000'	\$307.25	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$318.28	3.59%
7	12" (\$ / lin. Ft.)	1001' - 3000'	\$241.50	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$250.17	3.59%
8	12" (\$ / lin. Ft.)	3000' - +	\$224.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$232.04	3.59%
9	16" (\$ / lin. Ft.)	1' - 300'	\$924.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$957.17	3.59%
10	16" (\$ / lin. Ft.)	301'-1000'	\$449.50	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom 4 Laborers, + Vehicles	\$465.64	3.59%
11	16" (\$ / lin. Ft.)	1001' - 3000'	\$332.50	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$344.44	3.59%
12	16" (\$ / lin. Ft.)	3000' - +	\$306.25	1 Foreman, 2 Welders, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$317.24	3.59%

Note:

- Light to Medium soil, excavation using backhoe
- Pipe Installation includes saw cutting, pavement and soil excavation and haul off up to 5' depth, shoring, backfill and final paving
- Include steel (non-skid) trench plates and assume x ≥ 30' pipe joints
- Assume random double pipe joints
- Pre-inspection and job scheduling
- Disconnecting, abandoning, by-passing, and purging of associated pipelines
- USA marking, layout, scheduling, traffic control devices (signs, barricades, delineator, arrow boards, etc...)
- Compaction to 95% and shade pipe 12" above
- Bell holes, main tie-ins, main tie-overs
- Pressure testing and gas handling operations
- Include Labor for gas-up operations
- Clean up and all other work required for gas pipe installation
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STEEL MAIN INSTALLATION - ARTERIAL STREET CROSSING						
Method of Installation - Open Trench Pavement PCC - 7" < x ≤ 9"						
No.	Pipe Size	Linear Foot	Unit Price	Contractor Crew Size	New Price	% Inc
1	8" (\$ / lin. Ft.)	1' - 120'	\$868.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$899.16	3.59%
2	12" (\$ / lin. Ft.)	1' - 120'	\$1,068.00	1 Foreman, 1 Welder, 1 Backhoe, 4 Laborers, + Vehicles	\$1,106.34	3.59%
3	16" (\$ / lin. Ft.)	1' - 120'	\$1,691.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$1,751.71	3.59%

STEEL MAIN INSTALLATION - ARTERIAL STREET CROSSING						
Method of Installation - Open Trench Pavement Asphalt PCC - 7" < x ≤ 9"						
No.	Pipe Size	Linear Foot	Unit Price	Contractor Crew Size	New Price	% Inc
1	8" (\$ / lin. Ft.)	1' - 120'	\$851.00	1 Foreman, 1 Operator, 1 Backhoe, 3 Laborers, + Vehicles	\$881.55	3.59%
2	12" (\$ / lin. Ft.)	1' - 120'	1,047.00	1 Foreman, 1 Welder, 1 Backhoe, 4 Laborers, + Vehicles	\$1,084.59	3.59%
3	16" (\$ / lin. Ft.)	1' - 120'	1,657.00	1 Foreman, 1 Welder, 1 Backhoe, 1 Sideboom, 4 Laborers, + Vehicles	\$1,716.49	3.59%

Note:

Corrected Rate

- Light to Medium soil, excavation using backhoe
- Pipe Installation includes saw cutting, pavement and soil excavation and haul off up to 5' depth, shoring, backfill and final paving
- Include steel (non-skid) trench plates and assume x ≥ 30' pipe joints
- Assume random double pipe joints
- Pre-inspection and job scheduling
- Disconnecting, abandoning, by-passing, and purging of associated pipelines
- USA marking, layout, scheduling, traffic control devices (signs, barricades, delineator, arrow boards, etc...)
- Compaction to 95% and shade pipe 12" above
- Bell holes, main tie-ins, main tie-overs
- Pressure testing and gas handling operations
- Include Labor for gas-up operations
- Clean up and all other work required for gas pipe installation
- Based on 40 hour work week (5 days - 8 hour or 4 days - 10 hour)
- Steel pipe to be installed per Specification G228S
- Fitting Installation for Gas Handling see PC Fittings
- All arterial street crossings shall be measured from property line to property line

