

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0044 LF 9mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	127.02	
For Vinlyester Resin, Add	73.84	
For Epoxy Resin, Add	8.70	
For Up To >10, Add	117.34	
For >10 To 25, Add	80.20	
For >25 To 50, Add	53.39	
For >50 To 100, Add	26.70	
For >500 To 1,000, Deduct	-3.72	
For >1,000 To 2,000, Deduct	-6.91	
For >2,000 To 5,000, Deduct	-10.64	
For >5,000, Deduct	-17.01	
33 01 30 72-0045 LF 9mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	144.31	
For Vinlyester Resin, Add	84.57	
For Epoxy Resin, Add	9.97	
For Up To >10, Add	130.88	
For >10 To 25, Add	88.93	
For >25 To 50, Add	59.40	
For >50 To 100, Add	29.70	
For >500 To 1,000, Deduct	-4.18	
For >1,000 To 2,000, Deduct	-7.77	
For >2,000 To 5,000, Deduct	-11.95	
For >5,000, Deduct	-19.13	
33 01 30 72-0046 10.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0047 LF 10.5mm Lining 15" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	104.54	
For Vinlyester Resin, Add	60.87	
For Epoxy Resin, Add	7.17	
For Up To >10, Add	96.25	
For >10 To 25, Add	65.71	
For >25 To 50, Add	43.78	
For >50 To 100, Add	21.89	
For >500 To 1,000, Deduct	-3.06	
For >1,000 To 2,000, Deduct	-5.68	
For >2,000 To 5,000, Deduct	-8.74	
For >5,000, Deduct	-13.97	
33 01 30 72-0048 LF 10.5mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	124.70	
For Vinlyester Resin, Add	73.38	
For Epoxy Resin, Add	8.65	
For Up To >10, Add	112.03	
For >10 To 25, Add	75.88	
For >25 To 50, Add	50.77	
For >50 To 100, Add	25.39	
For >500 To 1,000, Deduct	-3.59	
For >1,000 To 2,000, Deduct	-6.68	
For >2,000 To 5,000, Deduct	-10.26	
For >5,000, Deduct	-16.44	
33 01 30 72-0049 LF 10.5mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	144.25	
For Vinlyester Resin, Add	85.90	
For Epoxy Resin, Add	10.12	
For Up To >10, Add	125.95	
For >10 To 25, Add	84.51	
For >25 To 50, Add	56.84	
For >50 To 100, Add	28.42	
For >500 To 1,000, Deduct	-4.07	
For >1,000 To 2,000, Deduct	-7.60	
For >2,000 To 5,000, Deduct	-11.67	
For >5,000, Deduct	-18.73	
33 01 30 72-0050 LF 10.5mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	164.09	
For Vinlyester Resin, Add	98.42	
For Epoxy Resin, Add	11.60	
For Up To >10, Add	140.77	
For >10 To 25, Add	93.88	
For >25 To 50, Add	63.36	
For >50 To 100, Add	31.68	
For >500 To 1,000, Deduct	-4.57	
For >1,000 To 2,000, Deduct	-8.56	
For >2,000 To 5,000, Deduct	-13.13	
For >5,000, Deduct	-21.11	
33 01 30 72-0051 LF 10.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	184.35	
For Vinlyester Resin, Add	110.94	
For Epoxy Resin, Add	13.07	
For Up To >10, Add	156.85	
For >10 To 25, Add	104.30	
For >25 To 50, Add	70.50	
For >50 To 100, Add	35.25	
For >500 To 1,000, Deduct	-5.11	
For >1,000 To 2,000, Deduct	-9.57	
For >2,000 To 5,000, Deduct	-14.68	
For >5,000, Deduct	-23.61	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0052 LF 10.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	205.14	
For Vinlyester Resin, Add	123.46	
For Epoxy Resin, Add	14.55	
For Up To >10, Add	174.50	
For >10 To 25, Add	116.02	
For >25 To 50, Add	78.43	
For >50 To 100, Add	39.21	
For >500 To 1,000, Deduct	-5.69	
For >1,000 To 2,000, Deduct	-10.65	
For >2,000 To 5,000, Deduct	-16.34	
For >5,000, Deduct	-26.27	
33 01 30 72-0053 LF 10.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	244.52	
For Vinlyester Resin, Add	148.49	
For Epoxy Resin, Add	17.50	
For Up To >10, Add	203.24	
For >10 To 25, Add	134.01	
For >25 To 50, Add	91.01	
For >50 To 100, Add	45.51	
For >500 To 1,000, Deduct	-6.67	
For >1,000 To 2,000, Deduct	-12.53	
For >2,000 To 5,000, Deduct	-19.21	
For >5,000, Deduct	-30.93	
33 01 30 72-0054 12mm Thick Lining Cured In-Place Pipe <small>(33 01 30 72-0015)</small>		
33 01 30 72-0055 LF 12mm Lining 15" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	116.56	
For Vinlyester Resin, Add	69.28	
For Epoxy Resin, Add	8.17	
For Up To >10, Add	102.26	
For >10 To 25, Add	68.72	
For >25 To 50, Add	46.18	
For >50 To 100, Add	23.09	
For >500 To 1,000, Deduct	-3.30	
For >1,000 To 2,000, Deduct	-6.16	
For >2,000 To 5,000, Deduct	-9.46	
For >5,000, Deduct	-15.17	
33 01 30 72-0056 LF 12mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	139.28	
For Vinlyester Resin, Add	83.59	
For Epoxy Resin, Add	9.85	
For Up To >10, Add	119.32	
For >10 To 25, Add	79.53	
For >25 To 50, Add	53.69	
For >50 To 100, Add	26.84	
For >500 To 1,000, Deduct	-3.88	
For >1,000 To 2,000, Deduct	-7.26	
For >2,000 To 5,000, Deduct	-11.14	
For >5,000, Deduct	-17.90	
33 01 30 72-0057 LF 12mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	161.38	
For Vinlyester Resin, Add	97.90	
For Epoxy Resin, Add	11.54	
For Up To >10, Add	134.52	
For >10 To 25, Add	88.79	
For >25 To 50, Add	60.27	
For >50 To 100, Add	30.13	
For >500 To 1,000, Deduct	-4.41	
For >1,000 To 2,000, Deduct	-8.29	
For >2,000 To 5,000, Deduct	-12.70	
For >5,000, Deduct	-20.44	
33 01 30 72-0058 LF 12mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	183.77	
For Vinlyester Resin, Add	112.20	
For Epoxy Resin, Add	13.22	
For Up To >10, Add	150.61	
For >10 To 25, Add	98.80	
For >25 To 50, Add	67.29	
For >50 To 100, Add	33.65	
For >500 To 1,000, Deduct	-4.97	
For >1,000 To 2,000, Deduct	-9.35	
For >2,000 To 5,000, Deduct	-14.31	
For >5,000, Deduct	-23.08	
33 01 30 72-0059 LF 12mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	206.59	
For Vinlyester Resin, Add	126.50	
For Epoxy Resin, Add	14.91	
For Up To >10, Add	167.97	
For >10 To 25, Add	109.86	
For >25 To 50, Add	74.95	
For >50 To 100, Add	37.47	
For >500 To 1,000, Deduct	-5.55	
For >1,000 To 2,000, Deduct	-10.46	
For >2,000 To 5,000, Deduct	-16.02	
For >5,000, Deduct	-25.83	

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0060	LF		12mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	229.93	
			For Vinlyester Resin, Add	140.81	
			For Epoxy Resin, Add	16.60	
			For Up To >10, Add	186.89	
			For >10 To 25, Add	122.22	
			For >25 To 50, Add	83.39	
			For >50 To 100, Add	41.69	
			For >500 To 1,000, Deduct	-6.18	
			For >1,000 To 2,000, Deduct	-11.64	
			For >2,000 To 5,000, Deduct	-17.82	
			For >5,000, Deduct	-28.75	
33 01 30 72-0061	LF		12mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	274.42	
			For Vinlyester Resin, Add	169.42	
			For Epoxy Resin, Add	19.97	
			For Up To >10, Add	218.19	
			For >10 To 25, Add	141.48	
			For >25 To 50, Add	96.99	
			For >50 To 100, Add	48.50	
			For >500 To 1,000, Deduct	-7.27	
			For >1,000 To 2,000, Deduct	-13.73	
			For >2,000 To 5,000, Deduct	-21.00	
			For >5,000, Deduct	-33.92	
33 01 30 72-0062	LF		12mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	319.84	
			For Vinlyester Resin, Add	198.04	
			For Epoxy Resin, Add	23.34	
			For Up To >10, Add	252.25	
			For >10 To 25, Add	163.05	
			For >25 To 50, Add	111.98	
			For >50 To 100, Add	55.99	
			For >500 To 1,000, Deduct	-8.43	
			For >1,000 To 2,000, Deduct	-15.93	
			For >2,000 To 5,000, Deduct	-24.36	
			For >5,000, Deduct	-39.37	
33 01 30 72-0063	LF		12mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	366.93	
			For Vinlyester Resin, Add	226.65	
			For Epoxy Resin, Add	26.71	
			For Up To >10, Add	291.34	
			For >10 To 25, Add	188.82	
			For >25 To 50, Add	129.48	
			For >50 To 100, Add	64.74	
			For >500 To 1,000, Deduct	-9.71	
			For >1,000 To 2,000, Deduct	-18.34	
			For >2,000 To 5,000, Deduct	-28.06	
			For >5,000, Deduct	-45.32	
33 01 30 72-0064			13.5mm Thick Lining Cured In-Place Pipe <small>(33 01 30 72-0015)</small>		
33 01 30 72-0065	LF		13.5mm Lining 15" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	128.48	
			For Vinlyester Resin, Add	77.62	
			For Epoxy Resin, Add	9.15	
			For Up To >10, Add	108.22	
			For >10 To 25, Add	71.70	
			For >25 To 50, Add	48.56	
			For >50 To 100, Add	24.28	
			For >500 To 1,000, Deduct	-3.54	
			For >1,000 To 2,000, Deduct	-6.63	
			For >2,000 To 5,000, Deduct	-10.17	
			For >5,000, Deduct	-16.37	
33 01 30 72-0066	LF		13.5mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	153.75	
			For Vinlyester Resin, Add	93.72	
			For Epoxy Resin, Add	11.05	
			For Up To >10, Add	126.55	
			For >10 To 25, Add	83.15	
			For >25 To 50, Add	56.58	
			For >50 To 100, Add	28.29	
			For >500 To 1,000, Deduct	-4.17	
			For >1,000 To 2,000, Deduct	-7.84	
			For >2,000 To 5,000, Deduct	-12.01	
			For >5,000, Deduct	-19.35	
33 01 30 72-0067	LF		13.5mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	178.40	
			For Vinlyester Resin, Add	109.81	
			For Epoxy Resin, Add	12.94	
			For Up To >10, Add	143.03	
			For >10 To 25, Add	93.04	
			For >25 To 50, Add	63.67	
			For >50 To 100, Add	31.83	
			For >500 To 1,000, Deduct	-4.75	
			For >1,000 To 2,000, Deduct	-8.97	
			For >2,000 To 5,000, Deduct	-13.72	
			For >5,000, Deduct	-22.15	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0068 LF 13.5mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	203.36	
For Vinlyester Resin, Add	125.91	
For Epoxy Resin, Add	14.84	
For Up To >10, Add	160.41	
For >10 To 25, Add	103.69	
For >25 To 50, Add	71.21	
For >50 To 100, Add	35.60	
For >500 To 1,000, Deduct	-5.36	
For >1,000 To 2,000, Deduct	-10.13	
For >2,000 To 5,000, Deduct	-15.49	
For >5,000, Deduct	-25.03	
33 01 30 72-0069 LF 13.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	228.73	
For Vinlyester Resin, Add	142.00	
For Epoxy Resin, Add	16.74	
For Up To >10, Add	179.04	
For >10 To 25, Add	115.39	
For >25 To 50, Add	79.38	
For >50 To 100, Add	39.69	
For >500 To 1,000, Deduct	-6.00	
For >1,000 To 2,000, Deduct	-11.35	
For >2,000 To 5,000, Deduct	-17.35	
For >5,000, Deduct	-28.05	
33 01 30 72-0070 LF 13.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	254.62	
For Vinlyester Resin, Add	158.10	
For Epoxy Resin, Add	18.63	
For Up To >10, Add	199.24	
For >10 To 25, Add	128.39	
For >25 To 50, Add	88.33	
For >50 To 100, Add	44.16	
For >500 To 1,000, Deduct	-6.67	
For >1,000 To 2,000, Deduct	-12.63	
For >2,000 To 5,000, Deduct	-19.31	
For >5,000, Deduct	-31.22	
33 01 30 72-0071 LF 13.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	304.23	
For Vinlyester Resin, Add	190.29	
For Epoxy Resin, Add	22.43	
For Up To >10, Add	233.09	
For >10 To 25, Add	148.94	
For >25 To 50, Add	102.95	
For >50 To 100, Add	51.48	
For >500 To 1,000, Deduct	-7.87	
For >1,000 To 2,000, Deduct	-14.92	
For >2,000 To 5,000, Deduct	-22.79	
For >5,000, Deduct	-36.90	
33 01 30 72-0072 LF 13.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	354.75	
For Vinlyester Resin, Add	222.47	
For Epoxy Resin, Add	26.22	
For Up To >10, Add	269.70	
For >10 To 25, Add	171.78	
For >25 To 50, Add	118.96	
For >50 To 100, Add	59.48	
For >500 To 1,000, Deduct	-9.13	
For >1,000 To 2,000, Deduct	-17.33	
For >2,000 To 5,000, Deduct	-26.46	
For >5,000, Deduct	-42.86	
33 01 30 72-0073 LF 13.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	406.95	
For Vinlyester Resin, Add	254.66	
For Epoxy Resin, Add	30.01	
For Up To >10, Add	311.35	
For >10 To 25, Add	198.83	
For >25 To 50, Add	137.49	
For >50 To 100, Add	68.74	
For >500 To 1,000, Deduct	-10.51	
For >1,000 To 2,000, Deduct	-19.95	
For >2,000 To 5,000, Deduct	-30.46	
For >5,000, Deduct	-49.33	
33 01 30 72-0074 15mm Thick Lining Cured In-Place Pipe <small>(33 01 30 72-0015)</small>	140.30	
33 01 30 72-0075 LF 15mm Lining 15" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	140.30	
For Vinlyester Resin, Add	85.90	
For Epoxy Resin, Add	10.12	
For Up To >10, Add	114.13	
For >10 To 25, Add	74.65	
For >25 To 50, Add	50.93	
For >50 To 100, Add	25.46	
For >500 To 1,000, Deduct	-3.77	
For >1,000 To 2,000, Deduct	-7.11	
For >2,000 To 5,000, Deduct	-10.88	
For >5,000, Deduct	-17.55	

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30	72-0076	LF	15mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	168.12	
			For Vinlyester Resin, Add	103.78	
			For Epoxy Resin, Add	12.23	
			For Up To >10, Add	133.74	
			For >10 To 25, Add	86.74	
			For >25 To 50, Add	59.46	
			For >50 To 100, Add	29.73	
			For >500 To 1,000, Deduct	-4.46	
			For >1,000 To 2,000, Deduct	-8.41	
			For >2,000 To 5,000, Deduct	-12.87	
			For >5,000, Deduct	-20.79	
33 01 30	72-0077	LF	15mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	195.33	
			For Vinlyester Resin, Add	121.66	
			For Epoxy Resin, Add	14.34	
			For Up To >10, Add	151.49	
			For >10 To 25, Add	97.28	
			For >25 To 50, Add	67.06	
			For >50 To 100, Add	33.53	
			For >500 To 1,000, Deduct	-5.09	
			For >1,000 To 2,000, Deduct	-9.64	
			For >2,000 To 5,000, Deduct	-14.73	
			For >5,000, Deduct	-23.84	
33 01 30	72-0078	LF	15mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	222.84	
			For Vinlyester Resin, Add	139.55	
			For Epoxy Resin, Add	16.45	
			For Up To >10, Add	170.15	
			For >10 To 25, Add	108.56	
			For >25 To 50, Add	75.11	
			For >50 To 100, Add	37.55	
			For >500 To 1,000, Deduct	-5.75	
			For >1,000 To 2,000, Deduct	-10.91	
			For >2,000 To 5,000, Deduct	-16.66	
			For >5,000, Deduct	-26.98	
33 01 30	72-0079	LF	15mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	250.76	
			For Vinlyester Resin, Add	157.42	
			For Epoxy Resin, Add	18.55	
			For Up To >10, Add	190.06	
			For >10 To 25, Add	120.90	
			For >25 To 50, Add	83.78	
			For >50 To 100, Add	41.89	
			For >500 To 1,000, Deduct	-6.44	
			For >1,000 To 2,000, Deduct	-12.23	
			For >2,000 To 5,000, Deduct	-18.67	
			For >5,000, Deduct	-30.25	
33 01 30	72-0080	LF	15mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	279.21	
			For Vinlyester Resin, Add	175.31	
			For Epoxy Resin, Add	20.66	
			For Up To >10, Add	211.53	
			For >10 To 25, Add	134.54	
			For >25 To 50, Add	93.24	
			For >50 To 100, Add	46.62	
			For >500 To 1,000, Deduct	-7.17	
			For >1,000 To 2,000, Deduct	-13.61	
			For >2,000 To 5,000, Deduct	-20.78	
			For >5,000, Deduct	-33.68	
33 01 30	72-0081	LF	15mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	333.93	
			For Vinlyester Resin, Add	211.08	
			For Epoxy Resin, Add	24.88	
			For Up To >10, Add	247.94	
			For >10 To 25, Add	156.36	
			For >25 To 50, Add	108.89	
			For >50 To 100, Add	54.45	
			For >500 To 1,000, Deduct	-8.46	
			For >1,000 To 2,000, Deduct	-16.11	
			For >2,000 To 5,000, Deduct	-24.57	
			For >5,000, Deduct	-39.87	
33 01 30	72-0082	LF	15mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	389.56	
			For Vinlyester Resin, Add	246.84	
			For Epoxy Resin, Add	29.09	
			For Up To >10, Add	287.11	
			For >10 To 25, Add	180.48	
			For >25 To 50, Add	125.92	
			For >50 To 100, Add	62.96	
			For >500 To 1,000, Deduct	-9.82	
			For >1,000 To 2,000, Deduct	-18.72	
			For >2,000 To 5,000, Deduct	-28.54	
			For >5,000, Deduct	-46.34	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0083 LF 15mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	446.87	
For Vinylster Resin, Add	282.60	
For Epoxy Resin, Add	33.31	
For Up To >10, Add	331.31	
For >10 To 25, Add	208.81	
For >25 To 50, Add	145.47	
For >50 To 100, Add	72.73	
For >500 To 1,000, Deduct	-11.31	
For >1,000 To 2,000, Deduct	-21.54	
For >2,000 To 5,000, Deduct	-32.85	
For >5,000, Deduct	-53.32	
33 01 30 72-0084 16.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0085 LF 16.5mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	182.39	
For Vinylster Resin, Add	113.76	
For Epoxy Resin, Add	13.41	
For Up To >10, Add	140.87	
For >10 To 25, Add	90.31	
For >25 To 50, Add	62.31	
For >50 To 100, Add	31.15	
For >500 To 1,000, Deduct	-4.74	
For >1,000 To 2,000, Deduct	-8.98	
For >2,000 To 5,000, Deduct	-13.73	
For >5,000, Deduct	-22.21	
33 01 30 72-0086 LF 16.5mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	212.16	
For Vinylster Resin, Add	133.44	
For Epoxy Resin, Add	15.73	
For Up To >10, Add	159.91	
For >10 To 25, Add	101.48	
For >25 To 50, Add	70.42	
For >50 To 100, Add	35.21	
For >500 To 1,000, Deduct	-5.43	
For >1,000 To 2,000, Deduct	-10.32	
For >2,000 To 5,000, Deduct	-15.74	
For >5,000, Deduct	-25.52	
33 01 30 72-0087 LF 16.5mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	242.22	
For Vinylster Resin, Add	153.11	
For Epoxy Resin, Add	18.05	
For Up To >10, Add	179.84	
For >10 To 25, Add	113.41	
For >25 To 50, Add	78.98	
For >50 To 100, Add	39.49	
For >500 To 1,000, Deduct	-6.14	
For >1,000 To 2,000, Deduct	-11.69	
For >2,000 To 5,000, Deduct	-17.82	
For >5,000, Deduct	-28.92	
33 01 30 72-0088 LF 16.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	272.70	
For Vinylster Resin, Add	172.78	
For Epoxy Resin, Add	20.36	
For Up To >10, Add	201.03	
For >10 To 25, Add	126.38	
For >25 To 50, Add	88.17	
For >50 To 100, Add	44.09	
For >500 To 1,000, Deduct	-6.88	
For >1,000 To 2,000, Deduct	-13.11	
For >2,000 To 5,000, Deduct	-19.98	
For >5,000, Deduct	-32.44	
33 01 30 72-0089 LF 16.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	303.70	
For Vinylster Resin, Add	192.45	
For Epoxy Resin, Add	22.68	
For Up To >10, Add	223.78	
For >10 To 25, Add	140.66	
For >25 To 50, Add	98.14	
For >50 To 100, Add	49.07	
For >500 To 1,000, Deduct	-7.66	
For >1,000 To 2,000, Deduct	-14.59	
For >2,000 To 5,000, Deduct	-22.25	
For >5,000, Deduct	-36.12	
33 01 30 72-0090 LF 16.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	363.53	
For Vinylster Resin, Add	231.80	
For Epoxy Resin, Add	27.32	
For Up To >10, Add	262.74	
For >10 To 25, Add	163.76	
For >25 To 50, Add	114.81	
For >50 To 100, Add	57.41	
For >500 To 1,000, Deduct	-9.05	
For >1,000 To 2,000, Deduct	-17.29	
For >2,000 To 5,000, Deduct	-26.35	
For >5,000, Deduct	-42.83	

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0091 LF 16.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	424.27	
For Vinlyester Resin, Add	271.14	
For Epoxy Resin, Add	31.96	
For Up To >10, Add	304.46	
For >10 To 25, Add	189.16	
For >25 To 50, Add	132.86	
For >50 To 100, Add	66.43	
For >500 To 1,000, Deduct	-10.52	
For >1,000 To 2,000, Deduct	-20.11	
For >2,000 To 5,000, Deduct	-30.63	
For >5,000, Deduct	-49.81	
33 01 30 72-0092 LF 16.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	486.69	
For Vinlyester Resin, Add	310.48	
For Epoxy Resin, Add	36.59	
For Up To >10, Add	351.22	
For >10 To 25, Add	218.76	
For >25 To 50, Add	153.43	
For >50 To 100, Add	76.72	
For >500 To 1,000, Deduct	-12.11	
For >1,000 To 2,000, Deduct	-23.14	
For >2,000 To 5,000, Deduct	-35.24	
For >5,000, Deduct	-57.30	
33 01 30 72-0093 LF 16.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	551.49	
For Vinlyester Resin, Add	349.83	
For Epoxy Resin, Add	41.23	
For Up To >10, Add	405.10	
For >10 To 25, Add	254.29	
For >25 To 50, Add	177.56	
For >50 To 100, Add	88.78	
For >500 To 1,000, Deduct	-13.88	
For >1,000 To 2,000, Deduct	-26.46	
For >2,000 To 5,000, Deduct	-40.33	
For >5,000, Deduct	-65.50	
33 01 30 72-0094 18mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0095 LF 18mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	197.60	
For Vinlyester Resin, Add	123.69	
For Epoxy Resin, Add	14.58	
For Up To >10, Add	151.05	
For >10 To 25, Add	96.43	
For >25 To 50, Add	66.69	
For >50 To 100, Add	33.35	
For >500 To 1,000, Deduct	-5.10	
For >1,000 To 2,000, Deduct	-9.68	
For >2,000 To 5,000, Deduct	-14.78	
For >5,000, Deduct	-23.94	
33 01 30 72-0096 LF 18mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	230.01	
For Vinlyester Resin, Add	145.15	
For Epoxy Resin, Add	17.11	
For Up To >10, Add	171.66	
For >10 To 25, Add	108.49	
For >25 To 50, Add	75.46	
For >50 To 100, Add	37.73	
For >500 To 1,000, Deduct	-5.85	
For >1,000 To 2,000, Deduct	-11.13	
For >2,000 To 5,000, Deduct	-16.97	
For >5,000, Deduct	-27.53	
33 01 30 72-0097 LF 18mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	262.74	
For Vinlyester Resin, Add	166.61	
For Epoxy Resin, Add	19.64	
For Up To >10, Add	193.20	
For >10 To 25, Add	121.33	
For >25 To 50, Add	84.70	
For >50 To 100, Add	42.35	
For >500 To 1,000, Deduct	-6.61	
For >1,000 To 2,000, Deduct	-12.61	
For >2,000 To 5,000, Deduct	-19.23	
For >5,000, Deduct	-31.22	
33 01 30 72-0098 LF 18mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	295.88	
For Vinlyester Resin, Add	188.07	
For Epoxy Resin, Add	22.17	
For Up To >10, Add	215.97	
For >10 To 25, Add	135.19	
For >25 To 50, Add	94.55	
For >50 To 100, Add	47.27	
For >500 To 1,000, Deduct	-7.41	
For >1,000 To 2,000, Deduct	-14.15	
For >2,000 To 5,000, Deduct	-21.56	
For >5,000, Deduct	-35.03	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0099 LF 18mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	329.53	
For Vinlyester Resin, Add	209.52	
For Epoxy Resin, Add	24.69	
For Up To >10, Add	240.29	
For >10 To 25, Add	150.36	
For >25 To 50, Add	105.18	
For >50 To 100, Add	52.59	
For >500 To 1,000, Deduct	-8.25	
For >1,000 To 2,000, Deduct	-15.75	
For >2,000 To 5,000, Deduct	-24.00	
For >5,000, Deduct	-39.00	
33 01 30 72-0100 LF 18mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	394.58	
For Vinlyester Resin, Add	252.45	
For Epoxy Resin, Add	29.75	
For Up To >10, Add	282.14	
For >10 To 25, Add	175.01	
For >25 To 50, Add	123.04	
For >50 To 100, Add	61.52	
For >500 To 1,000, Deduct	-9.76	
For >1,000 To 2,000, Deduct	-18.67	
For >2,000 To 5,000, Deduct	-28.43	
For >5,000, Deduct	-46.25	
33 01 30 72-0101 LF 18mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	460.75	
For Vinlyester Resin, Add	295.37	
For Epoxy Resin, Add	34.81	
For Up To >10, Add	327.38	
For >10 To 25, Add	202.49	
For >25 To 50, Add	142.59	
For >50 To 100, Add	71.30	
For >500 To 1,000, Deduct	-11.35	
For >1,000 To 2,000, Deduct	-21.73	
For >2,000 To 5,000, Deduct	-33.08	
For >5,000, Deduct	-53.84	
33 01 30 72-0102 LF 18mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	528.59	
For Vinlyester Resin, Add	338.28	
For Epoxy Resin, Add	39.87	
For Up To >10, Add	377.62	
For >10 To 25, Add	234.14	
For >25 To 50, Add	164.65	
For >50 To 100, Add	82.32	
For >500 To 1,000, Deduct	-13.06	
For >1,000 To 2,000, Deduct	-25.00	
For >2,000 To 5,000, Deduct	-38.06	
For >5,000, Deduct	-61.93	
33 01 30 72-0103 LF 18mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	598.90	
For Vinlyester Resin, Add	381.21	
For Epoxy Resin, Add	44.93	
For Up To >10, Add	435.25	
For >10 To 25, Add	271.95	
For >25 To 50, Add	190.40	
For >50 To 100, Add	95.20	
For >500 To 1,000, Deduct	-14.97	
For >1,000 To 2,000, Deduct	-28.57	
For >2,000 To 5,000, Deduct	-43.54	
For >5,000, Deduct	-70.75	
33 01 30 72-0104 LF 18mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	676.46	
For Vinlyester Resin, Add	424.12	
For Epoxy Resin, Add	49.99	
For Up To >10, Add	514.66	
For >10 To 25, Add	327.90	
For >25 To 50, Add	227.03	
For >50 To 100, Add	113.52	
For >500 To 1,000, Deduct	-17.41	
For >1,000 To 2,000, Deduct	-33.06	
For >2,000 To 5,000, Deduct	-50.47	
For >5,000, Deduct	-81.76	
33 01 30 72-0105 LF 18mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	763.43	
For Vinlyester Resin, Add	467.04	
For Epoxy Resin, Add	55.04	
For Up To >10, Add	622.29	
For >10 To 25, Add	407.38	
For >25 To 50, Add	277.79	
For >50 To 100, Add	138.89	
For >500 To 1,000, Deduct	-20.56	
For >1,000 To 2,000, Deduct	-38.72	
For >2,000 To 5,000, Deduct	-59.28	
For >5,000, Deduct	-95.59	

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0106	LF	18mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	857.85	
		For Vinlyester Resin, Add	509.96	
		For Epoxy Resin, Add	60.10	
		For Up To >10, Add	752.28	
		For >10 To 25, Add	505.48	
		For >25 To 50, Add	339.71	
		For >50 To 100, Add	169.86	
		For >500 To 1,000, Deduct	-24.27	
		For >1,000 To 2,000, Deduct	-45.31	
		For >2,000 To 5,000, Deduct	-69.58	
		For >5,000, Deduct	-111.65	
33 01 30 72-0107		19.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0108	LF	19.5mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	211.67	
		For Vinlyester Resin, Add	133.54	
		For Epoxy Resin, Add	15.74	
		For Up To >10, Add	158.09	
		For >10 To 25, Add	99.94	
		For >25 To 50, Add	69.50	
		For >50 To 100, Add	34.75	
		For >500 To 1,000, Deduct	-5.38	
		For >1,000 To 2,000, Deduct	-10.24	
		For >2,000 To 5,000, Deduct	-15.63	
		For >5,000, Deduct	-25.35	
33 01 30 72-0109	LF	19.5mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	246.64	
		For Vinlyester Resin, Add	156.79	
		For Epoxy Resin, Add	18.48	
		For Up To >10, Add	179.97	
		For >10 To 25, Add	112.65	
		For >25 To 50, Add	78.79	
		For >50 To 100, Add	39.39	
		For >500 To 1,000, Deduct	-6.18	
		For >1,000 To 2,000, Deduct	-11.79	
		For >2,000 To 5,000, Deduct	-17.97	
		For >5,000, Deduct	-29.20	
33 01 30 72-0110	LF	19.5mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	281.92	
		For Vinlyester Resin, Add	180.03	
		For Epoxy Resin, Add	21.22	
		For Up To >10, Add	202.79	
		For >10 To 25, Add	126.12	
		For >25 To 50, Add	88.53	
		For >50 To 100, Add	44.27	
		For >500 To 1,000, Deduct	-7.00	
		For >1,000 To 2,000, Deduct	-13.38	
		For >2,000 To 5,000, Deduct	-20.38	
		For >5,000, Deduct	-33.14	
33 01 30 72-0111	LF	19.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	317.61	
		For Vinlyester Resin, Add	203.28	
		For Epoxy Resin, Add	23.96	
		For Up To >10, Add	226.83	
		For >10 To 25, Add	140.63	
		For >25 To 50, Add	98.90	
		For >50 To 100, Add	49.45	
		For >500 To 1,000, Deduct	-7.85	
		For >1,000 To 2,000, Deduct	-15.02	
		For >2,000 To 5,000, Deduct	-22.87	
		For >5,000, Deduct	-37.20	
33 01 30 72-0112	LF	19.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	353.82	
		For Vinlyester Resin, Add	226.53	
		For Epoxy Resin, Add	26.70	
		For Up To >10, Add	252.44	
		For >10 To 25, Add	156.43	
		For >25 To 50, Add	110.04	
		For >50 To 100, Add	55.02	
		For >500 To 1,000, Deduct	-8.74	
		For >1,000 To 2,000, Deduct	-16.72	
		For >2,000 To 5,000, Deduct	-25.46	
		For >5,000, Deduct	-41.42	
33 01 30 72-0113	LF	19.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	423.98	
		For Vinlyester Resin, Add	273.03	
		For Epoxy Resin, Add	32.18	
		For Up To >10, Add	296.84	
		For >10 To 25, Add	182.36	
		For >25 To 50, Add	128.92	
		For >50 To 100, Add	64.46	
		For >500 To 1,000, Deduct	-10.35	
		For >1,000 To 2,000, Deduct	-19.84	
		For >2,000 To 5,000, Deduct	-30.19	
		For >5,000, Deduct	-49.19	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0114 LF 19.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	495.26	
For Vinylster Resin, Add	319.52	
For Epoxy Resin, Add	37.66	
For Up To >10, Add	344.63	
For >10 To 25, Add	211.12	
For >25 To 50, Add	149.49	
For >50 To 100, Add	74.75	
For >500 To 1,000, Deduct	-12.04	
For >1,000 To 2,000, Deduct	-23.11	
For >2,000 To 5,000, Deduct	-35.15	
For >5,000, Deduct	-57.29	
33 01 30 72-0115 LF 19.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	568.21	
For Vinylster Resin, Add	366.02	
For Epoxy Resin, Add	43.14	
For Up To >10, Add	397.43	
For >10 To 25, Add	244.05	
For >25 To 50, Add	172.57	
For >50 To 100, Add	86.29	
For >500 To 1,000, Deduct	-13.86	
For >1,000 To 2,000, Deduct	-26.58	
For >2,000 To 5,000, Deduct	-40.44	
For >5,000, Deduct	-65.89	
33 01 30 72-0116 LF 19.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	643.62	
For Vinylster Resin, Add	412.51	
For Epoxy Resin, Add	48.62	
For Up To >10, Add	457.61	
For >10 To 25, Add	283.13	
For >25 To 50, Add	199.34	
For >50 To 100, Add	99.67	
For >500 To 1,000, Deduct	-15.86	
For >1,000 To 2,000, Deduct	-30.36	
For >2,000 To 5,000, Deduct	-46.22	
For >5,000, Deduct	-75.23	
33 01 30 72-0117 LF 19.5mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	726.29	
For Vinylster Resin, Add	459.00	
For Epoxy Resin, Add	54.10	
For Up To >10, Add	539.57	
For >10 To 25, Add	340.36	
For >25 To 50, Add	237.00	
For >50 To 100, Add	118.50	
For >500 To 1,000, Deduct	-18.41	
For >1,000 To 2,000, Deduct	-35.05	
For >2,000 To 5,000, Deduct	-53.46	
For >5,000, Deduct	-86.74	
33 01 30 72-0118 LF 19.5mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	818.38	
For Vinylster Resin, Add	505.51	
For Epoxy Resin, Add	59.58	
For Up To >10, Add	649.77	
For >10 To 25, Add	421.11	
For >25 To 50, Add	288.78	
For >50 To 100, Add	144.39	
For >500 To 1,000, Deduct	-21.66	
For >1,000 To 2,000, Deduct	-40.91	
For >2,000 To 5,000, Deduct	-62.58	
For >5,000, Deduct	-101.08	
33 01 30 72-0119 LF 19.5mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	917.91	
For Vinylster Resin, Add	552.00	
For Epoxy Resin, Add	65.06	
For Up To >10, Add	782.31	
For >10 To 25, Add	520.49	
For >25 To 50, Add	351.72	
For >50 To 100, Add	175.86	
For >500 To 1,000, Deduct	-25.47	
For >1,000 To 2,000, Deduct	-47.71	
For >2,000 To 5,000, Deduct	-73.18	
For >5,000, Deduct	-117.66	
33 01 30 72-0120 21mm Thick Lining Cured In-Place Pipe <small>(33 01 30 72-0015)</small>	226.68	
33 01 30 72-0121 LF 21mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	226.68	
For Vinylster Resin, Add	143.32	
For Epoxy Resin, Add	16.89	
For Up To >10, Add	168.19	
For >10 To 25, Add	106.04	
For >25 To 50, Add	73.86	
For >50 To 100, Add	36.93	
For >500 To 1,000, Deduct	-5.74	
For >1,000 To 2,000, Deduct	-10.93	
For >2,000 To 5,000, Deduct	-16.67	
For >5,000, Deduct	-27.06	

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0122 LF 21mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	264.30	
For Vinlyester Resin, Add	168.35	
For Epoxy Resin, Add	19.84	
For Up To >10, Add	191.65	
For >10 To 25, Add	119.63	
For >25 To 50, Add	83.80	
For >50 To 100, Add	41.90	
For >500 To 1,000, Deduct	-6.60	
For >1,000 To 2,000, Deduct	-12.60	
For >2,000 To 5,000, Deduct	-19.19	
For >5,000, Deduct	-31.19	
33 01 30 72-0123 LF 21mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	302.25	
For Vinlyester Resin, Add	193.39	
For Epoxy Resin, Add	22.79	
For Up To >10, Add	216.08	
For >10 To 25, Add	134.02	
For >25 To 50, Add	94.22	
For >50 To 100, Add	47.11	
For >500 To 1,000, Deduct	-7.47	
For >1,000 To 2,000, Deduct	-14.30	
For >2,000 To 5,000, Deduct	-21.77	
For >5,000, Deduct	-35.42	
33 01 30 72-0124 LF 21mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	340.59	
For Vinlyester Resin, Add	218.43	
For Epoxy Resin, Add	25.74	
For Up To >10, Add	241.67	
For >10 To 25, Add	149.39	
For >25 To 50, Add	105.23	
For >50 To 100, Add	52.62	
For >500 To 1,000, Deduct	-8.38	
For >1,000 To 2,000, Deduct	-16.05	
For >2,000 To 5,000, Deduct	-24.43	
For >5,000, Deduct	-39.77	
33 01 30 72-0125 LF 21mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	379.46	
For Vinlyester Resin, Add	243.46	
For Epoxy Resin, Add	28.69	
For Up To >10, Add	268.88	
For >10 To 25, Add	166.10	
For >25 To 50, Add	117.05	
For >50 To 100, Add	58.53	
For >500 To 1,000, Deduct	-9.33	
For >1,000 To 2,000, Deduct	-17.87	
For >2,000 To 5,000, Deduct	-27.20	
For >5,000, Deduct	-44.28	
33 01 30 72-0126 LF 21mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	455.03	
For Vinlyester Resin, Add	293.53	
For Epoxy Resin, Add	34.59	
For Up To >10, Add	316.77	
For >10 To 25, Add	194.08	
For >25 To 50, Add	137.42	
For >50 To 100, Add	68.71	
For >500 To 1,000, Deduct	-11.06	
For >1,000 To 2,000, Deduct	-21.24	
For >2,000 To 5,000, Deduct	-32.30	
For >5,000, Deduct	-52.64	
33 01 30 72-0127 LF 21mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	531.64	
For Vinlyester Resin, Add	343.61	
For Epoxy Resin, Add	40.50	
For Up To >10, Add	367.75	
For >10 To 25, Add	224.64	
For >25 To 50, Add	159.33	
For >50 To 100, Add	79.66	
For >500 To 1,000, Deduct	-12.88	
For >1,000 To 2,000, Deduct	-24.73	
For >2,000 To 5,000, Deduct	-37.61	
For >5,000, Deduct	-61.32	
33 01 30 72-0128 LF 21mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	609.89	
For Vinlyester Resin, Add	393.68	
For Epoxy Resin, Add	46.40	
For Up To >10, Add	423.67	
For >10 To 25, Add	259.33	
For >25 To 50, Add	183.72	
For >50 To 100, Add	91.86	
For >500 To 1,000, Deduct	-14.81	
For >1,000 To 2,000, Deduct	-28.43	
For >2,000 To 5,000, Deduct	-43.24	
For >5,000, Deduct	-70.49	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0129 LF 21mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	690.94	
For Vinylster Resin, Add	443.75	
For Epoxy Resin, Add	52.30	
For Up To >10, Add	488.00	
For >10 To 25, Add	301.01	
For >25 To 50, Add	212.30	
For >50 To 100, Add	106.15	
For >500 To 1,000, Deduct	-16.95	
For >1,000 To 2,000, Deduct	-32.48	
For >2,000 To 5,000, Deduct	-49.44	
For >5,000, Deduct	-80.50	
33 01 30 72-0130 LF 21mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	779.54	
For Vinylster Resin, Add	493.82	
For Epoxy Resin, Add	58.20	
For Up To >10, Add	574.97	
For >10 To 25, Add	361.57	
For >25 To 50, Add	252.21	
For >50 To 100, Add	126.11	
For >500 To 1,000, Deduct	-19.67	
For >1,000 To 2,000, Deduct	-37.48	
For >2,000 To 5,000, Deduct	-57.14	
For >5,000, Deduct	-92.77	
33 01 30 72-0131 LF 21mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	877.99	
For Vinylster Resin, Add	543.90	
For Epoxy Resin, Add	64.10	
For Up To >10, Add	691.47	
For >10 To 25, Add	446.73	
For >25 To 50, Add	306.89	
For >50 To 100, Add	153.44	
For >500 To 1,000, Deduct	-23.11	
For >1,000 To 2,000, Deduct	-43.70	
For >2,000 To 5,000, Deduct	-66.82	
For >5,000, Deduct	-108.00	
33 01 30 72-0132 LF 21mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	984.39	
For Vinylster Resin, Add	593.97	
For Epoxy Resin, Add	70.00	
For Up To >10, Add	831.85	
For >10 To 25, Add	551.78	
For >25 To 50, Add	373.50	
For >50 To 100, Add	186.75	
For >500 To 1,000, Deduct	-27.16	
For >1,000 To 2,000, Deduct	-50.92	
For >2,000 To 5,000, Deduct	-78.08	
For >5,000, Deduct	-125.61	
33 01 30 72-0133 22.5mm Thick Lining Cured In-Place Pipe <small>(33 01 30 72-0015)</small>		
33 01 30 72-0134 LF 22.5mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	240.55	
For Vinylster Resin, Add	153.03	
For Epoxy Resin, Add	18.04	
For Up To >10, Add	175.13	
For >10 To 25, Add	109.50	
For >25 To 50, Add	76.63	
For >50 To 100, Add	38.32	
For >500 To 1,000, Deduct	-6.02	
For >1,000 To 2,000, Deduct	-11.49	
For >2,000 To 5,000, Deduct	-17.50	
For >5,000, Deduct	-28.44	
33 01 30 72-0135 LF 22.5mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	280.73	
For Vinylster Resin, Add	179.85	
For Epoxy Resin, Add	21.20	
For Up To >10, Add	199.87	
For >10 To 25, Add	123.73	
For >25 To 50, Add	87.09	
For >50 To 100, Add	43.54	
For >500 To 1,000, Deduct	-6.92	
For >1,000 To 2,000, Deduct	-13.25	
For >2,000 To 5,000, Deduct	-20.18	
For >5,000, Deduct	-32.83	
33 01 30 72-0136 LF 22.5mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	321.23	
For Vinylster Resin, Add	206.68	
For Epoxy Resin, Add	24.36	
For Up To >10, Add	225.57	
For >10 To 25, Add	138.76	
For >25 To 50, Add	98.02	
For >50 To 100, Add	49.01	
For >500 To 1,000, Deduct	-7.85	
For >1,000 To 2,000, Deduct	-15.06	
For >2,000 To 5,000, Deduct	-22.91	
For >5,000, Deduct	-37.32	

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0137 LF 22.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	362.12	
For Vinlyester Resin, Add	233.50	
For Epoxy Resin, Add	27.52	
For Up To >10, Add	252.44	
For >10 To 25, Add	154.77	
For >25 To 50, Add	109.54	
For >50 To 100, Add	54.77	
For >500 To 1,000, Deduct	-8.81	
For >1,000 To 2,000, Deduct	-16.91	
For >2,000 To 5,000, Deduct	-25.72	
For >5,000, Deduct	-41.92	
33 01 30 72-0138 LF 22.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	403.55	
For Vinlyester Resin, Add	260.32	
For Epoxy Resin, Add	30.68	
For Up To >10, Add	280.93	
For >10 To 25, Add	172.12	
For >25 To 50, Add	121.87	
For >50 To 100, Add	60.93	
For >500 To 1,000, Deduct	-9.81	
For >1,000 To 2,000, Deduct	-18.83	
For >2,000 To 5,000, Deduct	-28.65	
For >5,000, Deduct	-46.69	
33 01 30 72-0139 LF 22.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	484.23	
For Vinlyester Resin, Add	313.97	
For Epoxy Resin, Add	37.00	
For Up To >10, Add	331.37	
For >10 To 25, Add	201.38	
For >25 To 50, Add	143.26	
For >50 To 100, Add	71.63	
For >500 To 1,000, Deduct	-11.65	
For >1,000 To 2,000, Deduct	-22.40	
For >2,000 To 5,000, Deduct	-34.05	
For >5,000, Deduct	-55.56	
33 01 30 72-0140 LF 22.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	565.94	
For Vinlyester Resin, Add	367.62	
For Epoxy Resin, Add	43.33	
For Up To >10, Add	384.90	
For >10 To 25, Add	233.22	
For >25 To 50, Add	166.19	
For >50 To 100, Add	83.09	
For >500 To 1,000, Deduct	-13.56	
For >1,000 To 2,000, Deduct	-26.10	
For >2,000 To 5,000, Deduct	-39.66	
For >5,000, Deduct	-64.75	
33 01 30 72-0141 LF 22.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	649.30	
For Vinlyester Resin, Add	421.27	
For Epoxy Resin, Add	49.65	
For Up To >10, Add	443.38	
For >10 To 25, Add	269.18	
For >25 To 50, Add	191.60	
For >50 To 100, Add	95.80	
For >500 To 1,000, Deduct	-15.60	
For >1,000 To 2,000, Deduct	-30.01	
For >2,000 To 5,000, Deduct	-45.61	
For >5,000, Deduct	-74.43	
33 01 30 72-0142 LF 22.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	735.47	
For Vinlyester Resin, Add	474.92	
For Epoxy Resin, Add	55.97	
For Up To >10, Add	510.26	
For >10 To 25, Add	312.14	
For >25 To 50, Add	221.21	
For >50 To 100, Add	110.60	
For >500 To 1,000, Deduct	-17.84	
For >1,000 To 2,000, Deduct	-34.26	
For >2,000 To 5,000, Deduct	-52.11	
For >5,000, Deduct	-84.95	
33 01 30 72-0143 LF 22.5mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	829.18	
For Vinlyester Resin, Add	528.57	
For Epoxy Resin, Add	62.30	
For Up To >10, Add	599.79	
For >10 To 25, Add	373.98	
For >25 To 50, Add	262.14	
For >50 To 100, Add	131.07	
For >500 To 1,000, Deduct	-20.66	
For >1,000 To 2,000, Deduct	-39.46	
For >2,000 To 5,000, Deduct	-60.12	
For >5,000, Deduct	-97.73	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0144 LF 22.5mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	932.73	
For Vinylster Resin, Add	582.22	
For Epoxy Resin, Add	68.62	
For Up To >10, Add	718.84	
For >10 To 25, Add	460.41	
For >25 To 50, Add	317.83	
For >50 To 100, Add	158.92	
For >500 To 1,000, Deduct	-24.21	
For >1,000 To 2,000, Deduct	-45.89	
For >2,000 To 5,000, Deduct	-70.10	
For >5,000, Deduct	-113.47	
33 01 30 72-0145 LF 22.5mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,044.24	
For Vinylster Resin, Add	635.87	
For Epoxy Resin, Add	74.94	
For Up To >10, Add	861.77	
For >10 To 25, Add	566.75	
For >25 To 50, Add	385.47	
For >50 To 100, Add	192.73	
For >500 To 1,000, Deduct	-28.36	
For >1,000 To 2,000, Deduct	-53.32	
For >2,000 To 5,000, Deduct	-81.67	
For >5,000, Deduct	-131.60	
33 01 30 72-0146 24mm Thick Lining Cured In-Place Pipe <small>(33 01 30 72-0015)</small>		
33 01 30 72-0147 LF 24mm Lining 18" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	255.45	
For Vinylster Resin, Add	162.67	
For Epoxy Resin, Add	19.17	
For Up To >10, Add	185.40	
For >10 To 25, Add	115.77	
For >25 To 50, Add	81.08	
For >50 To 100, Add	40.54	
For >500 To 1,000, Deduct	-6.38	
For >1,000 To 2,000, Deduct	-12.18	
For >2,000 To 5,000, Deduct	-18.56	
For >5,000, Deduct	-30.16	
33 01 30 72-0148 LF 24mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	298.19	
For Vinylster Resin, Add	191.28	
For Epoxy Resin, Add	22.54	
For Up To >10, Add	211.45	
For >10 To 25, Add	130.66	
For >25 To 50, Add	92.06	
For >50 To 100, Add	46.03	
For >500 To 1,000, Deduct	-7.34	
For >1,000 To 2,000, Deduct	-14.05	
For >2,000 To 5,000, Deduct	-21.38	
For >5,000, Deduct	-34.81	
33 01 30 72-0149 LF 24mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	341.34	
For Vinylster Resin, Add	219.89	
For Epoxy Resin, Add	25.92	
For Up To >10, Add	238.70	
For >10 To 25, Add	146.56	
For >25 To 50, Add	103.64	
For >50 To 100, Add	51.82	
For >500 To 1,000, Deduct	-8.32	
For >1,000 To 2,000, Deduct	-15.97	
For >2,000 To 5,000, Deduct	-24.29	
For >5,000, Deduct	-39.58	
33 01 30 72-0150 LF 24mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	384.91	
For Vinylster Resin, Add	248.50	
For Epoxy Resin, Add	29.29	
For Up To >10, Add	267.23	
For >10 To 25, Add	163.53	
For >25 To 50, Add	115.87	
For >50 To 100, Add	57.93	
For >500 To 1,000, Deduct	-9.34	
For >1,000 To 2,000, Deduct	-17.94	
For >2,000 To 5,000, Deduct	-27.28	
For >5,000, Deduct	-44.47	
33 01 30 72-0151 LF 24mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	429.20	
For Vinylster Resin, Add	277.12	
For Epoxy Resin, Add	32.66	
For Up To >10, Add	297.90	
For >10 To 25, Add	182.27	
For >25 To 50, Add	129.16	
For >50 To 100, Add	64.58	
For >500 To 1,000, Deduct	-10.42	
For >1,000 To 2,000, Deduct	-20.00	
For >2,000 To 5,000, Deduct	-30.42	
For >5,000, Deduct	-49.58	

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 01 30 72-0152	LF 24mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	515.08
	For Vinlyester Resin, Add	334.34
	For Epoxy Resin, Add	39.40
	For Up To >10, Add	351.17
	For >10 To 25, Add	213.03
	For >25 To 50, Add	151.70
	For >50 To 100, Add	75.85
	For >500 To 1,000, Deduct	-12.36
	For >1,000 To 2,000, Deduct	-23.79
	For >2,000 To 5,000, Deduct	-36.15
	For >5,000, Deduct	-59.00
33 01 30 72-0153	LF 24mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	624.82
	For Vinlyester Resin, Add	407.46
	For Epoxy Resin, Add	48.02
	For Up To >10, Add	419.26
	For >10 To 25, Add	252.37
	For >25 To 50, Add	180.53
	For >50 To 100, Add	90.26
	For >500 To 1,000, Deduct	-14.85
	For >1,000 To 2,000, Deduct	-28.63
	For >2,000 To 5,000, Deduct	-43.47
	For >5,000, Deduct	-71.03
33 01 30 72-0154	LF 24mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	691.00
	For Vinlyester Resin, Add	448.79
	For Epoxy Resin, Add	52.89
	For Up To >10, Add	470.18
	For >10 To 25, Add	284.96
	For >25 To 50, Add	203.03
	For >50 To 100, Add	101.52
	For >500 To 1,000, Deduct	-16.56
	For >1,000 To 2,000, Deduct	-31.88
	For >2,000 To 5,000, Deduct	-48.44
	For >5,000, Deduct	-79.07
33 01 30 72-0155	LF 24mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	782.79
	For Vinlyester Resin, Add	506.02
	For Epoxy Resin, Add	59.64
	For Up To >10, Add	541.17
	For >10 To 25, Add	330.50
	For >25 To 50, Add	234.44
	For >50 To 100, Add	117.22
	For >500 To 1,000, Deduct	-18.95
	For >1,000 To 2,000, Deduct	-36.40
	For >2,000 To 5,000, Deduct	-55.35
	For >5,000, Deduct	-90.26
33 01 30 72-0156	LF 24mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	882.44
	For Vinlyester Resin, Add	563.24
	For Epoxy Resin, Add	66.38
	For Up To >10, Add	635.75
	For >10 To 25, Add	395.68
	For >25 To 50, Add	277.64
	For >50 To 100, Add	138.82
	For >500 To 1,000, Deduct	-21.93
	For >1,000 To 2,000, Deduct	-41.91
	For >2,000 To 5,000, Deduct	-63.84
	For >5,000, Deduct	-103.81
33 01 30 72-0157	LF 24mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	992.44
	For Vinlyester Resin, Add	620.47
	For Epoxy Resin, Add	73.13
	For Up To >10, Add	761.37
	For >10 To 25, Add	486.75
	For >25 To 50, Add	336.37
	For >50 To 100, Add	168.18
	For >500 To 1,000, Deduct	-25.68
	For >1,000 To 2,000, Deduct	-48.71
	For >2,000 To 5,000, Deduct	-74.39
	For >5,000, Deduct	-120.46
33 01 30 72-0158	LF 24mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,110.71
	For Vinlyester Resin, Add	677.69
	For Epoxy Resin, Add	79.87
	For Up To >10, Add	911.81
	For >10 To 25, Add	598.48
	For >25 To 50, Add	407.50
	For >50 To 100, Add	203.75
	For >500 To 1,000, Deduct	-30.06
	For >1,000 To 2,000, Deduct	-56.55
	For >2,000 To 5,000, Deduct	-86.60
	For >5,000, Deduct	-139.59

33 01 30 72-0159 25.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0160 LF 25.5mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	314.42	
For Vinylster Resin, Add	202.64	
For Epoxy Resin, Add	23.88	
For Up To >10, Add	219.56	
For >10 To 25, Add	134.72	
For >25 To 50, Add	95.31	
For >50 To 100, Add	47.65	
For >500 To 1,000, Deduct	-7.66	
For >1,000 To 2,000, Deduct	-14.70	
For >2,000 To 5,000, Deduct	-22.36	
For >5,000, Deduct	-36.43	
33 01 30 72-0161 LF 25.5mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	360.12	
For Vinylster Resin, Add	233.04	
For Epoxy Resin, Add	27.47	
For Up To >10, Add	248.09	
For >10 To 25, Add	151.25	
For >25 To 50, Add	107.40	
For >50 To 100, Add	53.70	
For >500 To 1,000, Deduct	-8.70	
For >1,000 To 2,000, Deduct	-16.72	
For >2,000 To 5,000, Deduct	-25.42	
For >5,000, Deduct	-41.45	
33 01 30 72-0162 LF 25.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	406.25	
For Vinylster Resin, Add	263.44	
For Epoxy Resin, Add	31.05	
For Up To >10, Add	277.90	
For >10 To 25, Add	168.86	
For >25 To 50, Add	120.13	
For >50 To 100, Add	60.07	
For >500 To 1,000, Deduct	-9.77	
For >1,000 To 2,000, Deduct	-18.79	
For >2,000 To 5,000, Deduct	-28.56	
For >5,000, Deduct	-46.61	
33 01 30 72-0163 LF 25.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	453.09	
For Vinylster Resin, Add	293.84	
For Epoxy Resin, Add	34.63	
For Up To >10, Add	309.85	
For >10 To 25, Add	188.24	
For >25 To 50, Add	133.93	
For >50 To 100, Add	66.97	
For >500 To 1,000, Deduct	-10.89	
For >1,000 To 2,000, Deduct	-20.96	
For >2,000 To 5,000, Deduct	-31.85	
For >5,000, Deduct	-51.97	
33 01 30 72-0164 LF 25.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	544.08	
For Vinylster Resin, Add	354.64	
For Epoxy Resin, Add	41.80	
For Up To >10, Add	365.67	
For >10 To 25, Add	220.28	
For >25 To 50, Add	157.50	
For >50 To 100, Add	78.75	
For >500 To 1,000, Deduct	-12.94	
For >1,000 To 2,000, Deduct	-24.95	
For >2,000 To 5,000, Deduct	-37.89	
For >5,000, Deduct	-61.90	
33 01 30 72-0165 LF 25.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	636.23	
For Vinylster Resin, Add	415.44	
For Epoxy Resin, Add	48.96	
For Up To >10, Add	424.97	
For >10 To 25, Add	255.22	
For >25 To 50, Add	182.81	
For >50 To 100, Add	91.40	
For >500 To 1,000, Deduct	-15.08	
For >1,000 To 2,000, Deduct	-29.08	
For >2,000 To 5,000, Deduct	-44.16	
For >5,000, Deduct	-72.17	
33 01 30 72-0166 LF 25.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	730.22	
For Vinylster Resin, Add	476.25	
For Epoxy Resin, Add	56.13	
For Up To >10, Add	489.79	
For >10 To 25, Add	294.76	
For >25 To 50, Add	210.88	
For >50 To 100, Add	105.44	
For >500 To 1,000, Deduct	-17.35	
For >1,000 To 2,000, Deduct	-33.45	
For >2,000 To 5,000, Deduct	-50.80	
For >5,000, Deduct	-83.00	

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0167 LF 25.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	827.12	
For Vinlyester Resin, Add	537.05	
For Epoxy Resin, Add	63.29	
For Up To >10, Add	563.34	
For >10 To 25, Add	341.58	
For >25 To 50, Add	243.31	
For >50 To 100, Add	121.65	
For >500 To 1,000, Deduct	-19.84	
For >1,000 To 2,000, Deduct	-38.18	
For >2,000 To 5,000, Deduct	-58.01	
For >5,000, Deduct	-94.69	
33 01 30 72-0168 LF 25.5mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	931.88	
For Vinlyester Resin, Add	597.85	
For Epoxy Resin, Add	70.46	
For Up To >10, Add	660.47	
For >10 To 25, Add	408.04	
For >25 To 50, Add	287.53	
For >50 To 100, Add	143.76	
For >500 To 1,000, Deduct	-22.92	
For >1,000 To 2,000, Deduct	-43.89	
For >2,000 To 5,000, Deduct	-66.81	
For >5,000, Deduct	-108.75	
33 01 30 72-0169 LF 25.5mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,046.99	
For Vinlyester Resin, Add	658.65	
For Epoxy Resin, Add	77.63	
For Up To >10, Add	788.65	
For >10 To 25, Add	500.38	
For >25 To 50, Add	347.28	
For >50 To 100, Add	173.64	
For >500 To 1,000, Deduct	-26.77	
For >1,000 To 2,000, Deduct	-50.89	
For >2,000 To 5,000, Deduct	-77.67	
For >5,000, Deduct	-125.91	
33 01 30 72-0170 LF 25.5mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,170.37	
For Vinlyester Resin, Add	719.45	
For Epoxy Resin, Add	84.79	
For Up To >10, Add	941.64	
For >10 To 25, Add	613.40	
For >25 To 50, Add	419.43	
For >50 To 100, Add	209.71	
For >500 To 1,000, Deduct	-31.25	
For >1,000 To 2,000, Deduct	-58.93	
For >2,000 To 5,000, Deduct	-90.18	
For >5,000, Deduct	-145.55	
33 01 30 72-0171 27mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)	331.78	
33 01 30 72-0172 LF 27mm Lining 21" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	331.78	
For Vinlyester Resin, Add	213.92	
For Epoxy Resin, Add	25.21	
For Up To >10, Add	231.34	
For >10 To 25, Add	141.85	
For >25 To 50, Add	100.39	
For >50 To 100, Add	50.20	
For >500 To 1,000, Deduct	-8.08	
For >1,000 To 2,000, Deduct	-15.50	
For >2,000 To 5,000, Deduct	-23.57	
For >5,000, Deduct	-38.41	
33 01 30 72-0173 LF 27mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	380.13	
For Vinlyester Resin, Add	246.11	
For Epoxy Resin, Add	29.01	
For Up To >10, Add	261.44	
For >10 To 25, Add	159.27	
For >25 To 50, Add	113.14	
For >50 To 100, Add	56.57	
For >500 To 1,000, Deduct	-9.17	
For >1,000 To 2,000, Deduct	-17.63	
For >2,000 To 5,000, Deduct	-26.80	
For >5,000, Deduct	-43.72	
33 01 30 72-0174 LF 27mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	429.03	
For Vinlyester Resin, Add	278.30	
For Epoxy Resin, Add	32.80	
For Up To >10, Add	293.17	
For >10 To 25, Add	178.04	
For >25 To 50, Add	126.70	
For >50 To 100, Add	63.35	
For >500 To 1,000, Deduct	-10.31	
For >1,000 To 2,000, Deduct	-19.84	
For >2,000 To 5,000, Deduct	-30.15	
For >5,000, Deduct	-49.20	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0175 LF 27mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	478.52	
For Vinlyester Resin, Add	310.49	
For Epoxy Resin, Add	36.59	
For Up To >10, Add	326.69	
For >10 To 25, Add	198.31	
For >25 To 50, Add	141.17	
For >50 To 100, Add	70.58	
For >500 To 1,000, Deduct	-11.49	
For >1,000 To 2,000, Deduct	-22.11	
For >2,000 To 5,000, Deduct	-33.61	
For >5,000, Deduct	-54.85	
33 01 30 72-0176 LF 27mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	574.84	
For Vinlyester Resin, Add	374.86	
For Epoxy Resin, Add	44.18	
For Up To >10, Add	385.72	
For >10 To 25, Add	232.18	
For >25 To 50, Add	166.08	
For >50 To 100, Add	83.04	
For >500 To 1,000, Deduct	-13.66	
For >1,000 To 2,000, Deduct	-26.34	
For >2,000 To 5,000, Deduct	-40.00	
For >5,000, Deduct	-65.35	
33 01 30 72-0177 LF 27mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	672.39	
For Vinlyester Resin, Add	439.24	
For Epoxy Resin, Add	51.77	
For Up To >10, Add	448.45	
For >10 To 25, Add	269.12	
For >25 To 50, Add	192.85	
For >50 To 100, Add	96.42	
For >500 To 1,000, Deduct	-15.92	
For >1,000 To 2,000, Deduct	-30.71	
For >2,000 To 5,000, Deduct	-46.63	
For >5,000, Deduct	-76.22	
33 01 30 72-0178 LF 27mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	771.81	
For Vinlyester Resin, Add	503.62	
For Epoxy Resin, Add	59.36	
For Up To >10, Add	516.78	
For >10 To 25, Add	310.74	
For >25 To 50, Add	222.42	
For >50 To 100, Add	111.21	
For >500 To 1,000, Deduct	-18.32	
For >1,000 To 2,000, Deduct	-35.32	
For >2,000 To 5,000, Deduct	-53.64	
For >5,000, Deduct	-87.65	
33 01 30 72-0179 LF 27mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	874.13	
For Vinlyester Resin, Add	568.00	
For Epoxy Resin, Add	66.94	
For Up To >10, Add	593.82	
For >10 To 25, Add	359.61	
For >25 To 50, Add	256.34	
For >50 To 100, Add	128.17	
For >500 To 1,000, Deduct	-20.93	
For >1,000 To 2,000, Deduct	-40.29	
For >2,000 To 5,000, Deduct	-61.23	
For >5,000, Deduct	-99.95	
33 01 30 72-0180 LF 27mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	985.04	
For Vinlyester Resin, Add	632.38	
For Epoxy Resin, Add	74.53	
For Up To >10, Add	696.62	
For >10 To 25, Add	429.95	
For >25 To 50, Add	303.14	
For >50 To 100, Add	151.57	
For >500 To 1,000, Deduct	-24.19	
For >1,000 To 2,000, Deduct	-46.34	
For >2,000 To 5,000, Deduct	-70.53	
For >5,000, Deduct	-114.83	
33 01 30 72-0181 LF 27mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP).....	1,106.70	
For Vinlyester Resin, Add	696.76	
For Epoxy Resin, Add	82.12	
For Up To >10, Add	831.68	
For >10 To 25, Add	527.17	
For >25 To 50, Add	366.07	
For >50 To 100, Add	183.03	
For >500 To 1,000, Deduct	-28.26	
For >1,000 To 2,000, Deduct	-53.73	
For >2,000 To 5,000, Deduct	-81.99	
For >5,000, Deduct	-132.94	

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0182 LF 27mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,237.07	
For Vinlyester Resin, Add	761.14	
For Epoxy Resin, Add	89.71	
For Up To >10, Add	992.86	
For >10 To 25, Add	646.16	
For >25 To 50, Add	442.06	
For >50 To 100, Add	221.03	
For >500 To 1,000, Deduct	-32.98	
For >1,000 To 2,000, Deduct	-62.21	
For >2,000 To 5,000, Deduct	-95.19	
For >5,000, Deduct	-153.65	
33 01 30 72-0183 28.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0184 LF 28.5mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	398.71	
For Vinlyester Resin, Add	259.11	
For Epoxy Resin, Add	30.54	
For Up To >10, Add	270.73	
For >10 To 25, Add	163.92	
For >25 To 50, Add	116.86	
For >50 To 100, Add	58.43	
For >500 To 1,000, Deduct	-9.54	
For >1,000 To 2,000, Deduct	-18.38	
For >2,000 To 5,000, Deduct	-27.92	
For >5,000, Deduct	-45.58	
33 01 30 72-0185 LF 28.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	450.16	
For Vinlyester Resin, Add	293.09	
For Epoxy Resin, Add	34.54	
For Up To >10, Add	303.73	
For >10 To 25, Add	183.33	
For >25 To 50, Add	130.93	
For >50 To 100, Add	65.47	
For >500 To 1,000, Deduct	-10.73	
For >1,000 To 2,000, Deduct	-20.68	
For >2,000 To 5,000, Deduct	-31.41	
For >5,000, Deduct	-51.31	
33 01 30 72-0186 LF 28.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	502.21	
For Vinlyester Resin, Add	327.07	
For Epoxy Resin, Add	38.55	
For Up To >10, Add	338.53	
For >10 To 25, Add	204.24	
For >25 To 50, Add	145.90	
For >50 To 100, Add	72.95	
For >500 To 1,000, Deduct	-11.97	
For >1,000 To 2,000, Deduct	-23.06	
For >2,000 To 5,000, Deduct	-35.03	
For >5,000, Deduct	-57.22	
33 01 30 72-0187 LF 28.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	634.30	
For Vinlyester Resin, Add	415.11	
For Epoxy Resin, Add	48.92	
For Up To >10, Add	420.38	
For >10 To 25, Add	251.48	
For >25 To 50, Add	180.54	
For >50 To 100, Add	90.27	
For >500 To 1,000, Deduct	-14.96	
For >1,000 To 2,000, Deduct	-28.88	
For >2,000 To 5,000, Deduct	-43.84	
For >5,000, Deduct	-71.69	
33 01 30 72-0188 LF 28.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	706.30	
For Vinlyester Resin, Add	462.98	
For Epoxy Resin, Add	54.57	
For Up To >10, Add	465.40	
For >10 To 25, Add	277.60	
For >25 To 50, Add	199.63	
For >50 To 100, Add	99.82	
For >500 To 1,000, Deduct	-16.60	
For >1,000 To 2,000, Deduct	-32.07	
For >2,000 To 5,000, Deduct	-48.66	
For >5,000, Deduct	-79.61	
33 01 30 72-0189 LF 28.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	810.83	
For Vinlyester Resin, Add	530.94	
For Epoxy Resin, Add	62.57	
For Up To >10, Add	536.29	
For >10 To 25, Add	320.50	
For >25 To 50, Add	230.22	
For >50 To 100, Add	115.11	
For >500 To 1,000, Deduct	-19.10	
For >1,000 To 2,000, Deduct	-36.88	
For >2,000 To 5,000, Deduct	-55.98	
For >5,000, Deduct	-91.55	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0190 LF 28.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	918.47	
For Vinylster Resin, Add	598.89	
For Epoxy Resin, Add	70.98	
For Up To >10, Add	616.51	
For >10 To 25, Add	371.17	
For >25 To 50, Add	265.48	
For >50 To 100, Add	132.74	
For >500 To 1,000, Deduct	-21.83	
For >1,000 To 2,000, Deduct	-42.09	
For >2,000 To 5,000, Deduct	-63.92	
For >5,000, Deduct	-104.43	
33 01 30 72-0191 LF 28.5mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,034.28	
For Vinylster Resin, Add	666.85	
For Epoxy Resin, Add	78.59	
For Up To >10, Add	721.24	
For >10 To 25, Add	442.26	
For >25 To 50, Add	312.99	
For >50 To 100, Add	156.49	
For >500 To 1,000, Deduct	-25.18	
For >1,000 To 2,000, Deduct	-48.31	
For >2,000 To 5,000, Deduct	-73.49	
For >5,000, Deduct	-119.76	
33 01 30 72-0192 LF 28.5mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,161.04	
For Vinylster Resin, Add	734.80	
For Epoxy Resin, Add	86.60	
For Up To >10, Add	858.85	
For >10 To 25, Add	540.75	
For >25 To 50, Add	376.94	
For >50 To 100, Add	188.47	
For >500 To 1,000, Deduct	-29.34	
For >1,000 To 2,000, Deduct	-55.90	
For >2,000 To 5,000, Deduct	-85.25	
For >5,000, Deduct	-138.37	
33 01 30 72-0193 LF 28.5mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,296.52	
For Vinylster Resin, Add	802.75	
For Epoxy Resin, Add	94.61	
For Up To >10, Add	1,022.59	
For >10 To 25, Add	661.02	
For >25 To 50, Add	453.95	
For >50 To 100, Add	226.98	
For >500 To 1,000, Deduct	-34.17	
For >1,000 To 2,000, Deduct	-64.59	
For >2,000 To 5,000, Deduct	-98.75	
For >5,000, Deduct	-159.60	
33 01 30 72-0194 30mm Thick Lining Cured In-Place Pipe <small>(33 01 30 72-0015)</small>		
33 01 30 72-0195 LF 30mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	418.64	
For Vinylster Resin, Add	272.05	
For Epoxy Resin, Add	32.06	
For Up To >10, Add	284.32	
For >10 To 25, Add	172.16	
For >25 To 50, Add	122.73	
For >50 To 100, Add	61.36	
For >500 To 1,000, Deduct	-10.02	
For >1,000 To 2,000, Deduct	-19.30	
For >2,000 To 5,000, Deduct	-29.32	
For >5,000, Deduct	-47.86	
33 01 30 72-0196 LF 30mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	472.73	
For Vinylster Resin, Add	307.81	
For Epoxy Resin, Add	36.28	
For Up To >10, Add	318.87	
For >10 To 25, Add	192.43	
For >25 To 50, Add	137.45	
For >50 To 100, Add	68.72	
For >500 To 1,000, Deduct	-11.27	
For >1,000 To 2,000, Deduct	-21.71	
For >2,000 To 5,000, Deduct	-32.98	
For >5,000, Deduct	-53.87	
33 01 30 72-0197 LF 30mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	527.55	
For Vinylster Resin, Add	343.57	
For Epoxy Resin, Add	40.49	
For Up To >10, Add	355.60	
For >10 To 25, Add	214.53	
For >25 To 50, Add	153.26	
For >50 To 100, Add	76.63	
For >500 To 1,000, Deduct	-12.57	
For >1,000 To 2,000, Deduct	-24.22	
For >2,000 To 5,000, Deduct	-36.80	
For >5,000, Deduct	-60.10	

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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33 01 30 72-0198	LF 30mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	634.30	
	For Vinylester Resin, Add	415.11	
	For Epoxy Resin, Add	48.92	
	For Up To >10, Add	420.38	
	For >10 To 25, Add	251.48	
	For >25 To 50, Add	180.54	
	For >50 To 100, Add	90.27	
	For >500 To 1,000, Deduct	-14.96	
	For >1,000 To 2,000, Deduct	-28.88	
	For >2,000 To 5,000, Deduct	-43.84	
	For >5,000, Deduct	-71.69	
33 01 30 72-0199	LF 30mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	742.39	
	For Vinylester Resin, Add	486.64	
	For Epoxy Resin, Add	57.35	
	For Up To >10, Add	489.17	
	For >10 To 25, Add	291.78	
	For >25 To 50, Add	209.83	
	For >50 To 100, Add	104.91	
	For >500 To 1,000, Deduct	-17.44	
	For >1,000 To 2,000, Deduct	-33.71	
	For >2,000 To 5,000, Deduct	-51.15	
	For >5,000, Deduct	-83.68	
33 01 30 72-0200	LF 30mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	852.44	
	For Vinylester Resin, Add	558.17	
	For Epoxy Resin, Add	65.78	
	For Up To >10, Add	563.85	
	For >10 To 25, Add	336.97	
	For >25 To 50, Add	242.05	
	For >50 To 100, Add	121.03	
	For >500 To 1,000, Deduct	-20.08	
	For >1,000 To 2,000, Deduct	-38.78	
	For >2,000 To 5,000, Deduct	-58.85	
	For >5,000, Deduct	-96.25	
33 01 30 72-0201	LF 30mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	965.60	
	For Vinylester Resin, Add	629.71	
	For Epoxy Resin, Add	74.22	
	For Up To >10, Add	647.85	
	For >10 To 25, Add	389.95	
	For >25 To 50, Add	278.95	
	For >50 To 100, Add	139.47	
	For >500 To 1,000, Deduct	-22.94	
	For >1,000 To 2,000, Deduct	-44.24	
	For >2,000 To 5,000, Deduct	-67.18	
	For >5,000, Deduct	-109.76	
33 01 30 72-0202	LF 30mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,087.55	
	For Vinylester Resin, Add	701.24	
	For Epoxy Resin, Add	82.65	
	For Up To >10, Add	758.23	
	For >10 To 25, Add	464.89	
	For >25 To 50, Add	329.02	
	For >50 To 100, Add	164.51	
	For >500 To 1,000, Deduct	-26.47	
	For >1,000 To 2,000, Deduct	-50.79	
	For >2,000 To 5,000, Deduct	-77.26	
	For >5,000, Deduct	-125.91	
33 01 30 72-0203	LF 30mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,220.88	
	For Vinylester Resin, Add	772.77	
	For Epoxy Resin, Add	91.08	
	For Up To >10, Add	902.74	
	For >10 To 25, Add	568.29	
	For >25 To 50, Add	396.17	
	For >50 To 100, Add	198.09	
	For >500 To 1,000, Deduct	-30.85	
	For >1,000 To 2,000, Deduct	-58.77	
	For >2,000 To 5,000, Deduct	-89.62	
	For >5,000, Deduct	-145.47	
33 01 30 72-0204	LF 30mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,363.32	
	For Vinylester Resin, Add	844.30	
	For Epoxy Resin, Add	99.51	
	For Up To >10, Add	1,074.61	
	For >10 To 25, Add	694.49	
	For >25 To 50, Add	477.00	
	For >50 To 100, Add	238.50	
	For >500 To 1,000, Deduct	-35.91	
	For >1,000 To 2,000, Deduct	-67.89	
	For >2,000 To 5,000, Deduct	-103.80	
	For >5,000, Deduct	-167.77	

33 01 30 72-0205 31.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0206 LF 31.5mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	437.01	
For Vinylster Resin, Add	284.91	
For Epoxy Resin, Add	33.58	
For Up To >10, Add	293.51	
For >10 To 25, Add	176.75	
For >25 To 50, Add	126.40	
For >50 To 100, Add	63.20	
For >500 To 1,000, Deduct	-10.39	
For >1,000 To 2,000, Deduct	-20.03	
For >2,000 To 5,000, Deduct	-30.42	
For >5,000, Deduct	-49.70	
33 01 30 72-0207 LF 31.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	493.66	
For Vinylster Resin, Add	322.46	
For Epoxy Resin, Add	38.00	
For Up To >10, Add	329.33	
For >10 To 25, Add	197.67	
For >25 To 50, Add	141.63	
For >50 To 100, Add	70.82	
For >500 To 1,000, Deduct	-11.69	
For >1,000 To 2,000, Deduct	-22.55	
For >2,000 To 5,000, Deduct	-34.24	
For >5,000, Deduct	-55.97	
33 01 30 72-0208 LF 31.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	551.04	
For Vinylster Resin, Add	360.02	
For Epoxy Resin, Add	42.43	
For Up To >10, Add	367.35	
For >10 To 25, Add	220.40	
For >25 To 50, Add	157.96	
For >50 To 100, Add	78.98	
For >500 To 1,000, Deduct	-13.04	
For >1,000 To 2,000, Deduct	-25.16	
For >2,000 To 5,000, Deduct	-38.20	
For >5,000, Deduct	-62.45	
33 01 30 72-0209 LF 31.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	662.90	
For Vinylster Resin, Add	435.13	
For Epoxy Resin, Add	51.28	
For Up To >10, Add	434.68	
For >10 To 25, Add	258.63	
For >25 To 50, Add	186.26	
For >50 To 100, Add	93.13	
For >500 To 1,000, Deduct	-15.53	
For >1,000 To 2,000, Deduct	-30.03	
For >2,000 To 5,000, Deduct	-45.55	
For >5,000, Deduct	-74.55	
33 01 30 72-0210 LF 31.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	776.10	
For Vinylster Resin, Add	510.24	
For Epoxy Resin, Add	60.14	
For Up To >10, Add	506.03	
For >10 To 25, Add	300.20	
For >25 To 50, Add	216.57	
For >50 To 100, Add	108.28	
For >500 To 1,000, Deduct	-18.12	
For >1,000 To 2,000, Deduct	-35.06	
For >2,000 To 5,000, Deduct	-53.17	
For >5,000, Deduct	-87.05	
33 01 30 72-0211 LF 31.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	891.26	
For Vinylster Resin, Add	585.35	
For Epoxy Resin, Add	68.99	
For Up To >10, Add	583.26	
For >10 To 25, Add	346.68	
For >25 To 50, Add	249.82	
For >50 To 100, Add	124.91	
For >500 To 1,000, Deduct	-20.85	
For >1,000 To 2,000, Deduct	-40.33	
For >2,000 To 5,000, Deduct	-61.18	
For >5,000, Deduct	-100.14	
33 01 30 72-0212 LF 31.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,009.52	
For Vinylster Resin, Add	660.45	
For Epoxy Resin, Add	77.84	
For Up To >10, Add	669.81	
For >10 To 25, Add	400.93	
For >25 To 50, Add	287.73	
For >50 To 100, Add	143.87	
For >500 To 1,000, Deduct	-23.82	
For >1,000 To 2,000, Deduct	-45.99	
For >2,000 To 5,000, Deduct	-69.81	
For >5,000, Deduct	-114.16	

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0213 LF 31.5mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,136.58	
For Vinylster Resin, Add	735.56	
For Epoxy Resin, Add	86.69	
For Up To >10, Add	782.74	
For >10 To 25, Add	477.15	
For >25 To 50, Add	338.83	
For >50 To 100, Add	169.42	
For >500 To 1,000, Deduct	-27.45	
For >1,000 To 2,000, Deduct	-52.75	
For >2,000 To 5,000, Deduct	-80.20	
For >5,000, Deduct	-130.81	
33 01 30 72-0214 LF 31.5mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,275.02	
For Vinylster Resin, Add	810.67	
For Epoxy Resin, Add	95.54	
For Up To >10, Add	929.81	
For >10 To 25, Add	581.83	
For >25 To 50, Add	407.00	
For >50 To 100, Add	203.50	
For >500 To 1,000, Deduct	-31.93	
For >1,000 To 2,000, Deduct	-60.94	
For >2,000 To 5,000, Deduct	-92.87	
For >5,000, Deduct	-150.89	
33 01 30 72-0215 LF 31.5mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	12,897.57	
For Vinylster Resin, Add	8,918.27	
For Epoxy Resin, Add	1,051.08	
For Up To >10, Add	6,841.74	
For >10 To 25, Add	3,578.05	
For >25 To 50, Add	2,783.85	
For >50 To 100, Add	1,391.92	
For >500 To 1,000, Deduct	-266.60	
For >1,000 To 2,000, Deduct	-529.26	
For >2,000 To 5,000, Deduct	-795.86	
For >5,000, Deduct	-1,321.19	
33 01 30 72-0216 33mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0217 LF 33mm Lining 24" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	456.85	
For Vinylster Resin, Add	297.70	
For Epoxy Resin, Add	35.09	
For Up To >10, Add	307.33	
For >10 To 25, Add	185.22	
For >25 To 50, Add	132.40	
For >50 To 100, Add	66.20	
For >500 To 1,000, Deduct	-10.87	
For >1,000 To 2,000, Deduct	-20.96	
For >2,000 To 5,000, Deduct	-31.83	
For >5,000, Deduct	-52.00	
33 01 30 72-0218 LF 33mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	516.15	
For Vinylster Resin, Add	337.04	
For Epoxy Resin, Add	39.72	
For Up To >10, Add	344.73	
For >10 To 25, Add	207.02	
For >25 To 50, Add	148.29	
For >50 To 100, Add	74.14	
For >500 To 1,000, Deduct	-12.23	
For >1,000 To 2,000, Deduct	-23.59	
For >2,000 To 5,000, Deduct	-35.82	
For >5,000, Deduct	-58.55	
33 01 30 72-0219 LF 33mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	576.19	
For Vinylster Resin, Add	376.39	
For Epoxy Resin, Add	44.36	
For Up To >10, Add	384.32	
For >10 To 25, Add	230.65	
For >25 To 50, Add	165.28	
For >50 To 100, Add	82.64	
For >500 To 1,000, Deduct	-13.64	
For >1,000 To 2,000, Deduct	-26.32	
For >2,000 To 5,000, Deduct	-39.96	
For >5,000, Deduct	-65.32	
33 01 30 72-0220 LF 33mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	693.45	
For Vinylster Resin, Add	455.07	
For Epoxy Resin, Add	53.63	
For Up To >10, Add	455.10	
For >10 To 25, Add	270.90	
For >25 To 50, Add	195.05	
For >50 To 100, Add	97.52	
For >500 To 1,000, Deduct	-16.25	
For >1,000 To 2,000, Deduct	-31.42	
For >2,000 To 5,000, Deduct	-47.68	
For >5,000, Deduct	-78.02	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0221 LF 33mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	812.07	
For Vinlyester Resin, Add	533.76	
For Epoxy Resin, Add	62.91	
For Up To >10, Add	529.94	
For >10 To 25, Add	314.53	
For >25 To 50, Add	226.84	
For >50 To 100, Add	113.42	
For >500 To 1,000, Deduct	-18.97	
For >1,000 To 2,000, Deduct	-36.70	
For >2,000 To 5,000, Deduct	-55.66	
For >5,000, Deduct	-91.12	
33 01 30 72-0222 LF 33mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	932.65	
For Vinlyester Resin, Add	612.44	
For Epoxy Resin, Add	72.18	
For Up To >10, Add	610.65	
For >10 To 25, Add	363.06	
For >25 To 50, Add	261.58	
For >50 To 100, Add	130.79	
For >500 To 1,000, Deduct	-21.83	
For >1,000 To 2,000, Deduct	-42.21	
For >2,000 To 5,000, Deduct	-64.04	
For >5,000, Deduct	-104.81	
33 01 30 72-0223 LF 33mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,056.65	
For Vinlyester Resin, Add	691.12	
For Epoxy Resin, Add	81.45	
For Up To >10, Add	701.65	
For >10 To 25, Add	420.16	
For >25 To 50, Add	301.46	
For >50 To 100, Add	150.73	
For >500 To 1,000, Deduct	-24.95	
For >1,000 To 2,000, Deduct	-48.16	
For >2,000 To 5,000, Deduct	-73.11	
For >5,000, Deduct	-119.53	
33 01 30 72-0224 LF 33mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,189.75	
For Vinlyester Resin, Add	769.81	
For Epoxy Resin, Add	90.73	
For Up To >10, Add	819.93	
For >10 To 25, Add	499.98	
For >25 To 50, Add	354.98	
For >50 To 100, Add	177.49	
For >500 To 1,000, Deduct	-28.75	
For >1,000 To 2,000, Deduct	-55.24	
For >2,000 To 5,000, Deduct	-83.99	
For >5,000, Deduct	-136.98	
33 01 30 72-0225 LF 33mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,334.85	
For Vinlyester Resin, Add	848.50	
For Epoxy Resin, Add	100.00	
For Up To >10, Add	974.20	
For >10 To 25, Add	609.81	
For >25 To 50, Add	426.49	
For >50 To 100, Add	213.25	
For >500 To 1,000, Deduct	-33.45	
For >1,000 To 2,000, Deduct	-63.82	
For >2,000 To 5,000, Deduct	-97.27	
For >5,000, Deduct	-158.03	
33 01 30 72-0226 LF 33mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,489.59	
For Vinlyester Resin, Add	927.19	
For Epoxy Resin, Add	109.28	
For Up To >10, Add	1,157.40	
For >10 To 25, Add	743.74	
For >25 To 50, Add	512.47	
For >50 To 100, Add	256.24	
For >500 To 1,000, Deduct	-38.87	
For >1,000 To 2,000, Deduct	-73.61	
For >2,000 To 5,000, Deduct	-112.48	
For >5,000, Deduct	-181.97	
33 01 30 72-0227 34.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)	536.88	
33 01 30 72-0228 LF 34.5mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	536.88	
For Vinlyester Resin, Add	351.55	
For Epoxy Resin, Add	41.43	
For Up To >10, Add	355.09	
For >10 To 25, Add	212.21	
For >25 To 50, Add	152.43	
For >50 To 100, Add	76.22	
For >500 To 1,000, Deduct	-12.64	
For >1,000 To 2,000, Deduct	-24.42	
For >2,000 To 5,000, Deduct	-37.07	
For >5,000, Deduct	-60.62	

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0229 LF 34.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	599.47	
For Vinlyester Resin, Add	392.69	
For Epoxy Resin, Add	46.28	
For Up To >10, Add	395.96	
For >10 To 25, Add	236.47	
For >25 To 50, Add	169.93	
For >50 To 100, Add	84.97	
For >500 To 1,000, Deduct	-14.11	
For >1,000 To 2,000, Deduct	-27.25	
For >2,000 To 5,000, Deduct	-41.36	
For >5,000, Deduct	-67.65	
33 01 30 72-0230 LF 34.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	721.85	
For Vinlyester Resin, Add	474.95	
For Epoxy Resin, Add	55.98	
For Up To >10, Add	469.30	
For >10 To 25, Add	278.00	
For >25 To 50, Add	200.73	
For >50 To 100, Add	100.36	
For >500 To 1,000, Deduct	-16.82	
For >1,000 To 2,000, Deduct	-32.56	
For >2,000 To 5,000, Deduct	-49.38	
For >5,000, Deduct	-80.86	
33 01 30 72-0231 LF 34.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	845.57	
For Vinlyester Resin, Add	557.21	
For Epoxy Resin, Add	65.67	
For Up To >10, Add	546.69	
For >10 To 25, Add	322.90	
For >25 To 50, Add	233.54	
For >50 To 100, Add	116.77	
For >500 To 1,000, Deduct	-19.64	
For >1,000 To 2,000, Deduct	-38.04	
For >2,000 To 5,000, Deduct	-57.67	
For >5,000, Deduct	-94.47	
33 01 30 72-0232 LF 34.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	971.26	
For Vinlyester Resin, Add	639.47	
For Epoxy Resin, Add	75.37	
For Up To >10, Add	629.96	
For >10 To 25, Add	372.71	
For >25 To 50, Add	269.30	
For >50 To 100, Add	134.65	
For >500 To 1,000, Deduct	-22.60	
For >1,000 To 2,000, Deduct	-43.76	
For >2,000 To 5,000, Deduct	-66.36	
For >5,000, Deduct	-108.67	
33 01 30 72-0233 LF 34.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,100.38	
For Vinlyester Resin, Add	721.74	
For Epoxy Resin, Add	85.06	
For Up To >10, Add	723.52	
For >10 To 25, Add	431.09	
For >25 To 50, Add	310.21	
For >50 To 100, Add	155.10	
For >500 To 1,000, Deduct	-25.82	
For >1,000 To 2,000, Deduct	-49.91	
For >2,000 To 5,000, Deduct	-75.73	
For >5,000, Deduct	-123.90	
33 01 30 72-0234 LF 34.5mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,238.58	
For Vinlyester Resin, Add	803.99	
For Epoxy Resin, Add	94.76	
For Up To >10, Add	844.34	
For >10 To 25, Add	512.19	
For >25 To 50, Add	364.74	
For >50 To 100, Add	182.37	
For >500 To 1,000, Deduct	-29.72	
For >1,000 To 2,000, Deduct	-57.19	
For >2,000 To 5,000, Deduct	-86.92	
For >5,000, Deduct	-141.86	
33 01 30 72-0235 LF 34.5mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,388.79	
For Vinlyester Resin, Add	886.26	
For Epoxy Resin, Add	104.45	
For Up To >10, Add	1,001.17	
For >10 To 25, Add	623.30	
For >25 To 50, Add	437.28	
For >50 To 100, Add	218.64	
For >500 To 1,000, Deduct	-34.52	
For >1,000 To 2,000, Deduct	-65.98	
For >2,000 To 5,000, Deduct	-100.51	
For >5,000, Deduct	-163.42	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0236 LF 34.5mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,548.63	
For Vinlyester Resin, Add	968.51	
For Epoxy Resin, Add	114.15	
For Up To >10, Add	1,186.92	
For >10 To 25, Add	758.50	
For >25 To 50, Add	524.28	
For >50 To 100, Add	262.14	
For >500 To 1,000, Deduct	-40.05	
For >1,000 To 2,000, Deduct	-75.97	
For >2,000 To 5,000, Deduct	-116.02	
For >5,000, Deduct	-187.87	
33 01 30 72-0237 36mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0238 LF 36mm Lining 27" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	559.27	
For Vinlyester Resin, Add	366.00	
For Epoxy Resin, Add	43.14	
For Up To >10, Add	370.69	
For >10 To 25, Add	221.76	
For >25 To 50, Add	159.20	
For >50 To 100, Add	79.60	
For >500 To 1,000, Deduct	-13.19	
For >1,000 To 2,000, Deduct	-25.47	
For >2,000 To 5,000, Deduct	-38.66	
For >5,000, Deduct	-63.21	
33 01 30 72-0239 LF 36mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	624.81	
For Vinlyester Resin, Add	408.91	
For Epoxy Resin, Add	48.19	
For Up To >10, Add	413.43	
For >10 To 25, Add	247.17	
For >25 To 50, Add	177.51	
For >50 To 100, Add	88.75	
For >500 To 1,000, Deduct	-14.72	
For >1,000 To 2,000, Deduct	-28.42	
For >2,000 To 5,000, Deduct	-43.14	
For >5,000, Deduct	-70.55	
33 01 30 72-0240 LF 36mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	752.32	
For Vinlyester Resin, Add	494.75	
For Epoxy Resin, Add	58.31	
For Up To >10, Add	489.99	
For >10 To 25, Add	290.52	
For >25 To 50, Add	209.65	
For >50 To 100, Add	104.83	
For >500 To 1,000, Deduct	-17.55	
For >1,000 To 2,000, Deduct	-33.96	
For >2,000 To 5,000, Deduct	-51.51	
For >5,000, Deduct	-84.34	
33 01 30 72-0241 LF 36mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	881.47	
For Vinlyester Resin, Add	580.59	
For Epoxy Resin, Add	68.43	
For Up To >10, Add	570.86	
For >10 To 25, Add	337.48	
For >25 To 50, Add	243.96	
For >50 To 100, Add	121.98	
For >500 To 1,000, Deduct	-20.49	
For >1,000 To 2,000, Deduct	-39.68	
For >2,000 To 5,000, Deduct	-60.18	
For >5,000, Deduct	-98.56	
33 01 30 72-0242 LF 36mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,012.68	
For Vinlyester Resin, Add	666.43	
For Epoxy Resin, Add	78.54	
For Up To >10, Add	657.94	
For >10 To 25, Add	389.61	
For >25 To 50, Add	281.37	
For >50 To 100, Add	140.68	
For >500 To 1,000, Deduct	-23.59	
For >1,000 To 2,000, Deduct	-45.66	
For >2,000 To 5,000, Deduct	-69.25	
For >5,000, Deduct	-113.40	
33 01 30 72-0243 LF 36mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,147.51	
For Vinlyester Resin, Add	752.27	
For Epoxy Resin, Add	88.66	
For Up To >10, Add	755.86	
For >10 To 25, Add	450.77	
For >25 To 50, Add	324.19	
For >50 To 100, Add	162.10	
For >500 To 1,000, Deduct	-26.96	
For >1,000 To 2,000, Deduct	-52.09	
For >2,000 To 5,000, Deduct	-79.05	
For >5,000, Deduct	-129.32	

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30	72-0244	LF	36mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,291.86	
			For Vinlyester Resin, Add	838.10	
			For Epoxy Resin, Add	98.78	
			For Up To >10, Add	882.36	
			For >10 To 25, Add	535.75	
			For >25 To 50, Add	381.31	
			For >50 To 100, Add	190.66	
			For >500 To 1,000, Deduct	-31.04	
			For >1,000 To 2,000, Deduct	-59.71	
			For >2,000 To 5,000, Deduct	-90.75	
			For >5,000, Deduct	-148.10	
33 01 30	72-0245	LF	36mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,448.85	
			For Vinlyester Resin, Add	923.94	
			For Epoxy Resin, Add	108.89	
			For Up To >10, Add	1,046.75	
			For >10 To 25, Add	652.31	
			For >25 To 50, Add	457.38	
			For >50 To 100, Add	228.69	
			For >500 To 1,000, Deduct	-36.07	
			For >1,000 To 2,000, Deduct	-68.91	
			For >2,000 To 5,000, Deduct	-104.98	
			For >5,000, Deduct	-170.67	
33 01 30	72-0246	LF	36mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,615.86	
			For Vinlyester Resin, Add	1,009.79	
			For Epoxy Resin, Add	119.01	
			For Up To >10, Add	1,241.21	
			For >10 To 25, Add	793.91	
			For >25 To 50, Add	548.48	
			For >50 To 100, Add	274.24	
			For >500 To 1,000, Deduct	-41.85	
			For >1,000 To 2,000, Deduct	-79.37	
			For >2,000 To 5,000, Deduct	-121.22	
			For >5,000, Deduct	-196.25	
33 01 30	72-0247		37.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30	72-0248	LF	37.5mm Lining 30" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	647.70	
			For Vinlyester Resin, Add	425.08	
			For Epoxy Resin, Add	50.10	
			For Up To >10, Add	424.98	
			For >10 To 25, Add	252.94	
			For >25 To 50, Add	182.13	
			For >50 To 100, Add	91.06	
			For >500 To 1,000, Deduct	-15.18	
			For >1,000 To 2,000, Deduct	-29.35	
			For >2,000 To 5,000, Deduct	-44.53	
			For >5,000, Deduct	-72.86	
33 01 30	72-0249	LF	37.5mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	780.51	
			For Vinlyester Resin, Add	514.49	
			For Epoxy Resin, Add	60.64	
			For Up To >10, Add	504.08	
			For >10 To 25, Add	297.57	
			For >25 To 50, Add	215.29	
			For >50 To 100, Add	107.65	
			For >500 To 1,000, Deduct	-18.11	
			For >1,000 To 2,000, Deduct	-35.09	
			For >2,000 To 5,000, Deduct	-53.20	
			For >5,000, Deduct	-87.16	
33 01 30	72-0250	LF	37.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	914.77	
			For Vinlyester Resin, Add	603.90	
			For Epoxy Resin, Add	71.17	
			For Up To >10, Add	587.51	
			For >10 To 25, Add	345.81	
			For >25 To 50, Add	250.62	
			For >50 To 100, Add	125.31	
			For >500 To 1,000, Deduct	-21.16	
			For >1,000 To 2,000, Deduct	-41.02	
			For >2,000 To 5,000, Deduct	-62.17	
			For >5,000, Deduct	-101.89	
33 01 30	72-0251	LF	37.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,051.09	
			For Vinlyester Resin, Add	693.32	
			For Epoxy Resin, Add	81.71	
			For Up To >10, Add	677.15	
			For >10 To 25, Add	399.21	
			For >25 To 50, Add	289.05	
			For >50 To 100, Add	144.53	
			For >500 To 1,000, Deduct	-24.36	
			For >1,000 To 2,000, Deduct	-47.20	
			For >2,000 To 5,000, Deduct	-71.56	
			For >5,000, Deduct	-117.24	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0252 LF 37.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,191.03	
For Vinylster Resin, Add	782.73	
For Epoxy Resin, Add	92.25	
For Up To >10, Add	777.62	
For >10 To 25, Add	461.65	
For >25 To 50, Add	332.90	
For >50 To 100, Add	166.45	
For >500 To 1,000, Deduct	-27.83	
For >1,000 To 2,000, Deduct	-53.83	
For >2,000 To 5,000, Deduct	-81.66	
For >5,000, Deduct	-133.67	
33 01 30 72-0253 LF 37.5mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,340.49	
For Vinylster Resin, Add	872.14	
For Epoxy Resin, Add	102.79	
For Up To >10, Add	906.67	
For >10 To 25, Add	547.91	
For >25 To 50, Add	391.04	
For >50 To 100, Add	195.52	
For >500 To 1,000, Deduct	-32.01	
For >1,000 To 2,000, Deduct	-61.66	
For >2,000 To 5,000, Deduct	-93.67	
For >5,000, Deduct	-152.96	
33 01 30 72-0254 LF 37.5mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,502.59	
For Vinylster Resin, Add	961.56	
For Epoxy Resin, Add	113.33	
For Up To >10, Add	1,073.62	
For >10 To 25, Add	665.74	
For >25 To 50, Add	468.13	
For >50 To 100, Add	234.06	
For >500 To 1,000, Deduct	-37.14	
For >1,000 To 2,000, Deduct	-71.06	
For >2,000 To 5,000, Deduct	-108.21	
For >5,000, Deduct	-176.05	
33 01 30 72-0255 LF 37.5mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,674.70	
For Vinylster Resin, Add	1,050.97	
For Epoxy Resin, Add	123.86	
For Up To >10, Add	1,270.63	
For >10 To 25, Add	808.62	
For >25 To 50, Add	560.24	
For >50 To 100, Add	280.12	
For >500 To 1,000, Deduct	-43.03	
For >1,000 To 2,000, Deduct	-81.72	
For >2,000 To 5,000, Deduct	-124.75	
For >5,000, Deduct	-202.13	
33 01 30 72-0256 39mm Thick Lining Cured In-Place Pipe <small>(33 01 30 72-0015)</small>		
33 01 30 72-0257 LF 39mm Lining 36" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	810.88	
For Vinylster Resin, Add	534.15	
For Epoxy Resin, Add	62.95	
For Up To >10, Add	524.97	
For >10 To 25, Add	310.29	
For >25 To 50, Add	224.33	
For >50 To 100, Add	112.16	
For >500 To 1,000, Deduct	-18.85	
For >1,000 To 2,000, Deduct	-36.50	
For >2,000 To 5,000, Deduct	-55.35	
For >5,000, Deduct	-90.65	
33 01 30 72-0258 LF 39mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	950.56	
For Vinylster Resin, Add	627.14	
For Epoxy Resin, Add	73.91	
For Up To >10, Add	611.88	
For >10 To 25, Add	360.58	
For >25 To 50, Add	261.14	
For >50 To 100, Add	130.57	
For >500 To 1,000, Deduct	-22.02	
For >1,000 To 2,000, Deduct	-42.67	
For >2,000 To 5,000, Deduct	-64.68	
For >5,000, Deduct	-105.98	
33 01 30 72-0259 LF 39mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,092.49	
For Vinylster Resin, Add	720.13	
For Epoxy Resin, Add	84.87	
For Up To >10, Add	705.57	
For >10 To 25, Add	416.52	
For >25 To 50, Add	301.35	
For >50 To 100, Add	150.67	
For >500 To 1,000, Deduct	-25.35	
For >1,000 To 2,000, Deduct	-49.12	
For >2,000 To 5,000, Deduct	-74.47	
For >5,000, Deduct	-122.00	

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0260 LF 39mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,238.08	
For Vinlyester Resin, Add	813.13	
For Epoxy Resin, Add	95.83	
For Up To >10, Add	810.22	
For >10 To 25, Add	481.58	
For >25 To 50, Add	347.03	
For >50 To 100, Add	173.51	
For >500 To 1,000, Deduct	-28.97	
For >1,000 To 2,000, Deduct	-56.02	
For >2,000 To 5,000, Deduct	-84.99	
For >5,000, Deduct	-139.10	
33 01 30 72-0261 LF 39mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,393.68	
For Vinlyester Resin, Add	906.12	
For Epoxy Resin, Add	106.79	
For Up To >10, Add	944.92	
For >10 To 25, Add	571.69	
For >25 To 50, Add	407.74	
For >50 To 100, Add	203.87	
For >500 To 1,000, Deduct	-33.33	
For >1,000 To 2,000, Deduct	-64.18	
For >2,000 To 5,000, Deduct	-97.51	
For >5,000, Deduct	-159.21	
33 01 30 72-0262 LF 39mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,562.64	
For Vinlyester Resin, Add	999.11	
For Epoxy Resin, Add	117.75	
For Up To >10, Add	1,119.67	
For >10 To 25, Add	695.18	
For >25 To 50, Add	488.47	
For >50 To 100, Add	244.24	
For >500 To 1,000, Deduct	-38.70	
For >1,000 To 2,000, Deduct	-74.01	
For >2,000 To 5,000, Deduct	-112.71	
For >5,000, Deduct	-183.33	
33 01 30 72-0263 LF 39mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,742.25	
For Vinlyester Resin, Add	1,092.10	
For Epoxy Resin, Add	128.71	
For Up To >10, Add	1,326.40	
For >10 To 25, Add	845.31	
For >25 To 50, Add	585.19	
For >50 To 100, Add	292.60	
For >500 To 1,000, Deduct	-44.86	
For >1,000 To 2,000, Deduct	-85.17	
For >2,000 To 5,000, Deduct	-130.03	
For >5,000, Deduct	-210.65	
33 01 30 72-0264 40.5mm Thick Lining Cured In-Place Pipe (33 01 30 72-0015)		
33 01 30 72-0265 LF 40.5mm Lining 42" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	983.66	
For Vinlyester Resin, Add	650.31	
For Epoxy Resin, Add	76.64	
For Up To >10, Add	628.43	
For >10 To 25, Add	368.86	
For >25 To 50, Add	267.76	
For >50 To 100, Add	133.88	
For >500 To 1,000, Deduct	-22.68	
For >1,000 To 2,000, Deduct	-43.99	
For >2,000 To 5,000, Deduct	-66.67	
For >5,000, Deduct	-109.29	
33 01 30 72-0266 LF 40.5mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,130.67	
For Vinlyester Resin, Add	746.88	
For Epoxy Resin, Add	88.03	
For Up To >10, Add	724.59	
For >10 To 25, Add	425.99	
For >25 To 50, Add	308.94	
For >50 To 100, Add	154.47	
For >500 To 1,000, Deduct	-26.12	
For >1,000 To 2,000, Deduct	-50.64	
For >2,000 To 5,000, Deduct	-76.76	
For >5,000, Deduct	-125.81	
33 01 30 72-0267 LF 40.5mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,281.40	
For Vinlyester Resin, Add	843.45	
For Epoxy Resin, Add	99.41	
For Up To >10, Add	831.88	
For >10 To 25, Add	492.41	
For >25 To 50, Add	355.69	
For >50 To 100, Add	177.85	
For >500 To 1,000, Deduct	-29.83	
For >1,000 To 2,000, Deduct	-57.76	
For >2,000 To 5,000, Deduct	-87.59	
For >5,000, Deduct	-143.43	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0268 LF 40.5mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,442.11	
For Vinylster Resin, Add	940.02	
For Epoxy Resin, Add	110.79	
For Up To >10, Add	969.13	
For >10 To 25, Add	583.80	
For >25 To 50, Add	417.42	
For >50 To 100, Add	208.71	
For >500 To 1,000, Deduct	-34.30	
For >1,000 To 2,000, Deduct	-66.12	
For >2,000 To 5,000, Deduct	-100.42	
For >5,000, Deduct	-164.06	
33 01 30 72-0269 LF 40.5mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,616.18	
For Vinylster Resin, Add	1,036.59	
For Epoxy Resin, Add	122.17	
For Up To >10, Add	1,146.44	
For >10 To 25, Add	708.56	
For >25 To 50, Add	499.18	
For >50 To 100, Add	249.59	
For >500 To 1,000, Deduct	-39.77	
For >1,000 To 2,000, Deduct	-76.15	
For >2,000 To 5,000, Deduct	-115.92	
For >5,000, Deduct	-188.69	
33 01 30 72-0270 LF 40.5mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,800.80	
For Vinylster Resin, Add	1,133.15	
For Epoxy Resin, Add	133.55	
For Up To >10, Add	1,355.43	
For >10 To 25, Add	859.72	
For >25 To 50, Add	596.77	
For >50 To 100, Add	298.39	
For >500 To 1,000, Deduct	-46.03	
For >1,000 To 2,000, Deduct	-87.50	
For >2,000 To 5,000, Deduct	-133.53	
For >5,000, Deduct	-216.48	
33 01 30 72-0271 42mm Thick Lining Cured In-Place Pipe <small>(33 01 30 72-0015)</small>		
33 01 30 72-0272 LF 42mm Lining 48" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,171.92	
For Vinylster Resin, Add	773.56	
For Epoxy Resin, Add	91.17	
For Up To >10, Add	753.06	
For >10 To 25, Add	443.37	
For >25 To 50, Add	321.28	
For >50 To 100, Add	160.64	
For >500 To 1,000, Deduct	-27.11	
For >1,000 To 2,000, Deduct	-52.56	
For >2,000 To 5,000, Deduct	-79.67	
For >5,000, Deduct	-130.56	
33 01 30 72-0273 LF 42mm Lining 54" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,328.44	
For Vinylster Resin, Add	873.71	
For Epoxy Resin, Add	102.97	
For Up To >10, Add	864.95	
For >10 To 25, Add	512.76	
For >25 To 50, Add	370.07	
For >50 To 100, Add	185.03	
For >500 To 1,000, Deduct	-30.98	
For >1,000 To 2,000, Deduct	-59.96	
For >2,000 To 5,000, Deduct	-90.95	
For >5,000, Deduct	-148.90	
33 01 30 72-0274 LF 42mm Lining 60" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,495.41	
For Vinylster Resin, Add	973.85	
For Epoxy Resin, Add	114.77	
For Up To >10, Add	1,008.21	
For >10 To 25, Add	608.30	
For >25 To 50, Add	434.54	
For >50 To 100, Add	217.27	
For >500 To 1,000, Deduct	-35.64	
For >1,000 To 2,000, Deduct	-68.67	
For >2,000 To 5,000, Deduct	-104.31	
For >5,000, Deduct	-170.38	
33 01 30 72-0275 LF 42mm Lining 66" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,662.36	
For Vinylster Resin, Add	1,073.99	
For Epoxy Resin, Add	126.58	
For Up To >10, Add	1,151.41	
For >10 To 25, Add	703.79	
For >25 To 50, Add	498.99	
For >50 To 100, Add	249.49	
For >500 To 1,000, Deduct	-40.29	
For >1,000 To 2,000, Deduct	-77.38	
For >2,000 To 5,000, Deduct	-117.67	
For >5,000, Deduct	-191.85	

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 72-0276 LF 42mm Lining 72" Pipe With Resin Impregnated Cured In-Place Pipe (CIPP)	1,868.25	
For Vinlyester Resin, Add	1,174.14	
For Epoxy Resin, Add	138.38	
For Up To >10, Add	1,411.40	
For >10 To 25, Add	896.61	
For >25 To 50, Add	621.83	
For >50 To 100, Add	310.92	
For >500 To 1,000, Deduct	-47.87	
For >1,000 To 2,000, Deduct	-90.96	
For >2,000 To 5,000, Deduct	-138.82	
For >5,000, Deduct	-225.01	
33 01 30 74 Cured-in-Place Lateral Lining (33 01 30)		
33 01 30 74-0001 Laterals; Cutting, Grouting And Reinstatement (33 01 30 74)		
33 01 30 74-0002 Lateral Reinstatement/Reconnection (33 01 30 74-0001)		
33 01 30 74-0003 EA Cut Liner For Laterals, Up To 4" (Robotic)	415.05	
33 01 30 74-0004 EA Cut Liner For Laterals, 6" (Robotic)	448.69	
33 01 30 74-0005 EA Cut Liner For Laterals, 8" (Robotic)	476.75	
33 01 30 74-0006 EA Cut Liner For Laterals, 10" (Robotic)	504.79	
33 01 30 74-0007 EA Cut Liner For Laterals, 12" (Robotic)	532.83	
33 01 30 74-0008 Grout Lateral Service (33 01 30 74-0001)		
33 01 30 74-0009 Grout Lateral Service - Bladder (33 01 30 74-0008)		
33 01 30 74-0010 EA Grout Up To 4" Lateral Service - Bladder	435.38	
33 01 30 74-0011 EA Grout 6" Lateral Service - Bladder	497.59	
33 01 30 74-0012 EA Grout 8" Lateral Service - Bladder	559.78	
33 01 30 74-0013 Grout Lateral Service - Robotic Trowel Application (33 01 30 74-0008)		
33 01 30 74-0014 EA Grout 3" To 6" Lateral Service - Robotic Trowel Application	471.67	
33 01 30 74-0015 EA Grout 8" To 12" Lateral Service - Robotic Trowel Application	507.94	
33 01 30 74-0016 Lateral T-Liner (33 01 30 74-0001)		
Note: As manufactured by LMK.		
33 01 30 74-0017 EA Up To 4" Lateral T-Liner	559.75	
33 01 30 74-0018 EA 6" Lateral T-Liner	622.59	
33 01 30 74-0019 EA 8" Lateral T-Liner	719.61	
33 01 30 74-0020 Lining Lateral Pipe (33 01 30 74-0001)		
33 01 30 74-0021 Lining Lateral Pipe (33 01 30 74-0020)		
33 01 30 74-0022 LF 6mm Lining 3" Lateral Pipe With Cured In-Place Pipe (CIPP)	25.71	
For 7.5mm, Add	2.23	
For 9 mm, Add	4.42	
33 01 30 74-0023 LF 6mm Lining 4" Lateral Pipe With Cured In-Place Pipe (CIPP)	29.90	
For 7.5mm, Add	3.04	
For 9 mm, Add	6.02	
33 01 30 74-0024 LF 6mm Lining 6" Lateral Pipe With Cured In-Place Pipe (CIPP)	37.48	
For 7.5mm, Add	4.66	
For 9 mm, Add	9.21	
33 01 30 74-0025 Lining Manhole Drop (33 01 30 74-0020)		
33 01 30 74-0026 EA Manhole Drop Section Lining	597.65	
33 01 30 79 Fold-and-Form Pipe Lining (33 01 30)		
33 01 30 79-0001 Form and Fold Relining Underground Pipelines (33 01 30 79)		
Note: Excludes CCTV inspection and sewer cleaning. See CSI section 33 01 30 11-0000 for CCTV inspection, 33 01 30 41-0002 for sewer cleaning.		
33 01 30 79-0002 Fold-And-Form Relining Underground Pipelines Set-Up And Reinsertion (33 01 30 79-0001)		
33 01 30 79-0003 EA Initial Set Up And Final Equipment Removal For Fold-And-Form Relining Underground Pipelines	4,138.87	
33 01 30 79-0004 EA Move And Reset Up At Different Access/Location For Fold-And-Form Relining Underground Pipelines	1,655.55	
33 01 30 79-0005 Form And Fold Polyethylene (PE) Pipeliner (33 01 30 79-0001)		
33 01 30 79-0006 LF 4" Diameter Form and Fold Polyethylene Pipeliner, DR 32.5	29.67	
For DR 26 Pipe Liner, Add	5.20	
For Up To 75, Add	17.47	
For >75 To 150, Add	8.73	
For >500 To 1,000, Deduct	-0.67	
For >1,000 To 2,000, Deduct	-1.33	
For >2,000, Deduct	-2.66	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 79-0007 LF 6" Diameter Form and Fold Polyethylene Pipeliner, DR 32.5	37.81	
<i>For DR 26 Pipe Liner, Add</i>	7.07	
<i>For DR 35 Pipe Liner, Deduct</i>	-3.53	
<i>For Up To 75, Add</i>	19.98	
<i>For >75 To 150, Add</i>	9.99	
<i>For >500 To 1,000, Deduct</i>	-0.72	
<i>For >1,000 To 2,000, Deduct</i>	-1.43	
<i>For >2,000, Deduct</i>	-2.87	
33 01 30 79-0008 LF 8" Diameter Form and Fold Polyethylene Pipeliner, DR 32.5	39.13	
<i>For DR 26 Pipe Liner, Add</i>	7.20	
<i>For DR 35 Pipe Liner, Deduct</i>	-3.60	
<i>For Up To 75, Add</i>	21.28	
<i>For >75 To 150, Add</i>	10.64	
<i>For >500 To 1,000, Deduct</i>	-0.78	
<i>For >1,000 To 2,000, Deduct</i>	-1.55	
<i>For >2,000, Deduct</i>	-3.11	
33 01 30 79-0009 LF 10" Diameter Form and Fold Polyethylene Pipeliner, DR 32.5	54.45	
<i>For DR 26 Pipe Liner, Add</i>	10.79	
<i>For DR 35 Pipe Liner, Deduct</i>	-5.40	
<i>For DR 41 Pipe Liner, Deduct</i>	-10.79	
<i>For Up To 75, Add</i>	25.55	
<i>For >75 To 150, Add</i>	12.78	
<i>For >500 To 1,000, Deduct</i>	-0.85	
<i>For >1,000 To 2,000, Deduct</i>	-1.69	
<i>For >2,000, Deduct</i>	-3.38	
33 01 30 79-0010 LF 12" Diameter Form and Fold Polyethylene Pipeliner, DR 32.5	75.60	
<i>For DR 26 Pipe Liner, Add</i>	15.80	
<i>For DR 35 Pipe Liner, Deduct</i>	-7.90	
<i>For DR 41 Pipe Liner, Deduct</i>	-15.80	
<i>For Up To 75, Add</i>	31.27	
<i>For >75 To 150, Add</i>	15.63	
<i>For >500 To 1,000, Deduct</i>	-0.93	
<i>For >1,000 To 2,000, Deduct</i>	-1.86	
<i>For >2,000, Deduct</i>	-3.73	
33 01 30 79-0011 LF 15" Diameter Form and Fold Polyethylene Pipeliner, DR 32.5	103.07	
<i>For DR 35 Pipe Liner, Deduct</i>	-11.12	
<i>For DR 41 Pipe Liner, Deduct</i>	-22.24	
<i>For Up To 75, Add</i>	38.96	
<i>For >75 To 150, Add</i>	19.48	
<i>For >500 To 1,000, Deduct</i>	-1.06	
<i>For >1,000 To 2,000, Deduct</i>	-2.12	
<i>For >2,000, Deduct</i>	-4.23	
33 01 30 79-0012 LF 18" Diameter Form and Fold Polyethylene Pipeliner, DR 35	144.91	
<i>For DR 41 Pipe Liner, Deduct</i>	-12.90	
<i>For DR 50 Pipe Liner, Deduct</i>	-25.80	
<i>For Up To 75, Add</i>	49.68	
<i>For >75 To 150, Add</i>	24.84	
<i>For >500 To 1,000, Deduct</i>	-1.19	
<i>For >1,000 To 2,000, Deduct</i>	-2.39	
<i>For >2,000, Deduct</i>	-4.78	
33 01 30 79-0013 LF 21" Diameter Form and Fold Polyethylene Pipeliner, DR 47	163.77	
<i>For DR 50 Pipe Liner, Deduct</i>	-21.98	
<i>For DR 55 Pipe Liner, Deduct</i>	-36.63	
<i>For Up To 75, Add</i>	55.18	
<i>For >75 To 150, Add</i>	27.59	
<i>For >500 To 1,000, Deduct</i>	-1.29	
<i>For >1,000 To 2,000, Deduct</i>	-2.59	
<i>For >2,000, Deduct</i>	-5.18	
33 01 30 79-0014 LF 24" Diameter Form and Fold Polyethylene Pipeliner, DR 55	199.35	
<i>For DR 60 Pipe Liner, Deduct</i>	-27.08	
<i>For Up To 75, Add</i>	64.34	
<i>For >75 To 150, Add</i>	32.17	
<i>For >500 To 1,000, Deduct</i>	-1.41	
<i>For >1,000 To 2,000, Deduct</i>	-2.82	
<i>For >2,000, Deduct</i>	-5.65	
33 01 30 79-0015 Form And Fold Polyvinyl Chloride (PVC) Pipeliner <small>(33 01 30 79-0001)</small>		
33 01 30 79-0016 LF 4" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 32.5	31.63	
<i>For Up To 75, Add</i>	17.86	
<i>For >75 To 150, Add</i>	8.93	
<i>For >500 To 1,000, Deduct</i>	-0.67	
<i>For >1,000 To 2,000, Deduct</i>	-1.33	
<i>For >2,000, Deduct</i>	-2.66	
<i>For DR 26 Pipe Liner, Add</i>	5.69	
33 01 30 79-0017 LF 6" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 32.5	37.81	
<i>For Up To 75, Add</i>	19.98	
<i>For >75 To 150, Add</i>	9.99	
<i>For >500 To 1,000, Deduct</i>	-0.72	
<i>For >1,000 To 2,000, Deduct</i>	-1.43	
<i>For >2,000, Deduct</i>	-2.87	
<i>For DR 26 Pipe Liner, Add</i>	7.07	
<i>For DR 35 Pipe Liner, Deduct</i>	-3.53	

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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33 01 30 79-0018	LF 8" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 32.5	41.75	
	For Up To 75, Add	21.81	
	For >75 To 150, Add	10.90	
	For >500 To 1,000, Deduct	-0.78	
	For >1,000 To 2,000, Deduct	-1.55	
	For >2,000, Deduct	-3.11	
	For DR 26 Pipe Liner, Add	7.85	
	For DR 35 Pipe Liner, Deduct	-3.93	
33 01 30 79-0019	LF 10" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 32.5	58.37	
	For Up To 75, Add	26.34	
	For >75 To 150, Add	13.17	
	For >500 To 1,000, Deduct	-0.85	
	For >1,000 To 2,000, Deduct	-1.69	
	For >2,000, Deduct	-3.38	
	For DR 26 Pipe Liner, Add	11.77	
	For DR 35 Pipe Liner, Deduct	-5.89	
	For DR 41 Pipe Liner, Deduct	-11.77	
33 01 30 79-0020	LF 12" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 32.5	81.49	
	For Up To 75, Add	32.44	
	For >75 To 150, Add	16.22	
	For >500 To 1,000, Deduct	-0.93	
	For >1,000 To 2,000, Deduct	-1.86	
	For >2,000, Deduct	-3.73	
	For DR 26 Pipe Liner, Add	17.27	
	For DR 35 Pipe Liner, Deduct	-8.63	
	For DR 41 Pipe Liner, Deduct	-17.27	
33 01 30 79-0021	LF 15" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 32.5	111.44	
	For Up To 75, Add	40.63	
	For >75 To 150, Add	20.32	
	For >500 To 1,000, Deduct	-1.06	
	For >1,000 To 2,000, Deduct	-2.12	
	For >2,000, Deduct	-4.23	
	For DR 35 Pipe Liner, Deduct	-12.17	
	For DR 41 Pipe Liner, Deduct	-24.33	
33 01 30 79-0022	LF 18" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 35	157.20	
	For Up To 75, Add	52.14	
	For >75 To 150, Add	26.07	
	For >500 To 1,000, Deduct	-1.19	
	For >1,000 To 2,000, Deduct	-2.39	
	For >2,000, Deduct	-4.78	
	For DR 41 Pipe Liner, Deduct	-14.13	
	For DR 50 Pipe Liner, Deduct	-28.26	
33 01 30 79-0023	LF 21" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 47	177.37	
	For Up To 75, Add	57.90	
	For >75 To 150, Add	28.95	
	For >500 To 1,000, Deduct	-1.29	
	For >1,000 To 2,000, Deduct	-2.59	
	For >2,000, Deduct	-5.18	
	For DR 50 Pipe Liner, Deduct	-24.02	
	For DR 55 Pipe Liner, Deduct	-40.03	
33 01 30 79-0024	LF 24" Diameter Form and Fold Polyvinyl Chloride (PVC) Pipeliner, DR 55	216.62	
	For Up To 75, Add	67.79	
	For >75 To 150, Add	33.90	
	For >500 To 1,000, Deduct	-1.41	
	For >1,000 To 2,000, Deduct	-2.82	
	For >2,000, Deduct	-5.65	
	For DR 60 Pipe Liner, Deduct	-29.67	

33 01 30 81 Manhole Rehabilitation (33 01 30)**33 01 30 81-0001 Restoration And Rehabilitation Of Manholes (33 01 30 81)**

Note: Work is in confined spaces.

33 01 30 81-0002 Inspection And Ventilation System Set-up (33 01 30 81-0001)

33 01 30 81-0003	EA Inspect Manhole	153.42	
33 01 30 81-0004	EA 36" to 60" Diameter, Up To 2600', Installation And Maintenance Of Ventilation System	9,352.08	
	Note: For internal inspection and repair of water mains.		
33 01 30 81-0005	EA >60" to 108" Diameter, Up To 2600', Installation And Maintenance Of Ventilation System	13,174.18	
	Note: For internal inspection and repair of water mains		

33 01 30 81-0006 Manhole Seals (33 01 30 81-0001)**33 01 30 81-0007 Internal Manhole Chimney Seals (33 01 30 81-0006)**

Note: Cretex.

33 01 30 81-0008	EA 20" Internal Manhole Chimney Seal	418.16	
33 01 30 81-0009	EA 22" Internal Manhole Chimney Seal	440.77	
33 01 30 81-0010	EA 24" Internal Manhole Chimney Seal	452.06	
33 01 30 81-0011	EA 26" Internal Manhole Chimney Seal	519.88	
33 01 30 81-0012	EA 28" Internal Manhole Chimney Seal	587.69	
33 01 30 81-0013	EA 30" Internal Manhole Chimney Seal	655.49	
33 01 30 81-0014	EA 36" Internal Manhole Chimney Seal	791.12	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 81-0015 External Manhole Encapsulation <small>(33 01 30 81-0006)</small>		
<i>Note: Wrapidseal.</i>		
33 01 30 81-0016 EA 24" External Manhole Encapsulation	610.29	
33 01 30 81-0017 EA 30" External Manhole Encapsulation	644.19	
33 01 30 81-0018 EA 36" External Manhole Encapsulation	689.40	
33 01 30 81-0019 EA 42" External Manhole Encapsulation	745.91	
33 01 30 81-0020 EA 48" External Manhole Encapsulation	825.02	
33 01 30 81-0021 EA 54" External Manhole Encapsulation	915.43	
33 01 30 81-0022 EA 60" External Manhole Encapsulation	1,028.45	
33 01 30 81-0023 Manhole Crack Repair <small>(33 01 30 81-0001)</small>		
<i>Note: Includes removing loose materials and cleaning.</i>		
33 01 30 81-0024 LF Up To 1/4" Wide, Epoxy Grout Injection, Manhole Crack Repair	46.66	
33 01 30 81-0025 LF >1/4" To 1/2" Wide, Epoxy Grout Injection, Manhole Crack Repair	62.88	
33 01 30 81-0026 LF Up To 1/4" Wide, Urethane Grout Injection, Manhole Crack Repair	44.21	
33 01 30 81-0027 LF >1/4" To 1/2" Wide, Urethane Grout Injection, Manhole Crack Repair	59.72	
33 01 30 81-0028 Manhole Patching <small>(33 01 30 81-0001)</small>		
<i>Note: Includes removing loose materials and cleaning.</i>		
33 01 30 81-0029 SF Up To 1/4" Thick, Cementitious Grout, Manhole Patching	13.71	
33 01 30 81-0030 SF Up To 1/4" Thick, Epoxy Grout, Manhole Patching	34.26	
33 01 30 81-0031 Manhole Joint Restoration <small>(33 01 30 81-0001)</small>		
<i>Note: Includes drilling holes at joints, fill joints with grout.</i>		
33 01 30 81-0032 EA 3' Diameter Joint Restoration, Grout Fill Per Each Manhole	1,552.82	
<i>Note: Includes two (2) joints sections to be grouted and two (2) pipe connections.</i>		
<i>For Grouting Each Additional Manhole Joint Section, Add</i>		
	200.91	
33 01 30 81-0033 EA 3-1/2' Diameter Joint Restoration, Grout Fill Per Each Manhole	1,812.61	
<i>Note: Includes two (2) joints sections to be grouted and two (2) pipe connections.</i>		
<i>For Grouting Each Additional Manhole Joint Section, Add</i>		
	221.90	
33 01 30 81-0034 EA 4' Diameter Joint Restoration, Grout Fill Per Each Manhole	2,070.44	
<i>Note: Includes two (2) joints sections to be grouted and two (2) pipe connections.</i>		
<i>For Grouting Each Additional Manhole Joint Section, Add</i>		
	242.89	
33 01 30 81-0035 EA 5' Diameter Joint Restoration, Grout Fill Per Each Manhole	2,431.64	
<i>Note: Includes two (2) joints sections to be grouted and two (2) pipe connections.</i>		
<i>For Grouting Each Additional Manhole Joint Section, Add</i>		
	253.38	
33 01 30 81-0036 EA 6' Diameter Joint Restoration, Grout Fill Per Each Manhole	2,791.84	
<i>Note: Includes two (2) joints sections to be grouted and two (2) pipe connections.</i>		
<i>For Grouting Each Additional Manhole Joint Section, Add</i>		
	263.87	
33 01 30 81-0037 Step Installation In Existing Manholes <small>(33 01 30 81-0001)</small>		
<i>Note: Including drilling in existing concrete manhole, step and grout. Demolition cost includes removal of old step and patching holes.</i>		
33 01 30 81-0038 EA Drill And Grout 8" x 9" Cast Iron Manhole Steps	112.41	19.77
33 01 30 81-0039 EA Drill And Grout Galvanized Steel Manhole Step	88.81	19.77
33 01 30 81-0040 EA Bolt On Galvanized Steel Manhole Step	96.53	19.77
33 01 30 81-0041 EA Drill And Grout Aluminum Manhole Step	107.10	19.77
33 01 30 81-0042 EA Drill And Insert Polypropylene Manhole Step	54.02	15.82
33 01 30 81-0043 Invert Restoration <small>(33 01 30 81-0001)</small>		
<i>Note: Includes removal of existing defective material and installation of new material.</i>		
33 01 30 81-0044 Concrete Invert Restoration <small>(33 01 30 81-0043)</small>		
33 01 30 81-0045 EA 2' Diameter, Concrete Invert Restoration	292.65	
33 01 30 81-0046 EA 3' Diameter, Concrete Invert Restoration	331.00	
33 01 30 81-0047 EA 4' Diameter, Concrete Invert Restoration	369.35	
33 01 30 81-0048 EA 5' Diameter, Concrete Invert Restoration	407.71	
33 01 30 81-0049 EA 6' Diameter, Concrete Invert Restoration	522.77	
33 01 30 81-0050 SF Square Or Rectangular, Concrete Invert Restoration	29.37	
33 01 30 81-0051 Brick Invert Restoration <small>(33 01 30 81-0043)</small>		
33 01 30 81-0052 EA 2' Diameter, Brick Invert Restoration	495.73	
33 01 30 81-0053 EA 3' Diameter, Brick Invert Restoration	534.08	
33 01 30 81-0054 EA 4' Diameter, Brick Invert Restoration	572.44	
33 01 30 81-0055 EA 5' Diameter, Brick Invert Restoration	610.79	
33 01 30 81-0056 EA 6' Diameter, Brick Invert Restoration	649.15	
33 01 30 81-0057 SF Square Or Rectangular, Brick Invert Restoration	41.59	
33 01 30 82 Epoxy Lining For Concrete Manholes <small>(33 01 30)</small>		
33 01 30 82-0001 Epoxy Manhole Restoration, Interior <small>(33 01 30 82)</small>		

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 82-0002 VLF 60 Mil Epoxy Restoration Of 3' Diameter Manhole Interior.....	271.30	
For 80 Mil Material, Add	29.44	
For 100 Mil Material, Add	58.89	
For 125 Mil Material, Add	91.26	
For 150 Mil Material, Add	123.64	
For 200 Mil Material, Add	176.59	
For 2 To 5 Manholes, Deduct	-19.47	
For 6 To 10 Manholes, Deduct	-32.15	
For >10 Manholes, Deduct	-64.30	
33 01 30 82-0003 VLF 60 Mil Epoxy Restoration Of 3-1/2' Diameter Manhole Interior	329.67	
For 80 Mil Material, Add	35.35	
For 100 Mil Material, Add	70.70	
For 125 Mil Material, Add	109.47	
For 150 Mil Material, Add	148.25	
For 200 Mil Material, Add	211.37	
For 2 To 5 Manholes, Deduct	-23.70	
For 6 To 10 Manholes, Deduct	-39.15	
For >10 Manholes, Deduct	-78.31	
33 01 30 82-0004 VLF 60 Mil Epoxy Restoration Of 4' Diameter Manhole Interior.....	361.73	
For 80 Mil Material, Add	39.26	
For 100 Mil Material, Add	78.52	
For 125 Mil Material, Add	121.69	
For 150 Mil Material, Add	164.86	
For 200 Mil Material, Add	235.46	
For 2 To 5 Manholes, Deduct	-25.96	
For 6 To 10 Manholes, Deduct	-42.87	
For >10 Manholes, Deduct	-85.74	
33 01 30 82-0005 VLF 60 Mil Epoxy Restoration Of 5' Diameter Manhole Interior.....	452.20	
For 80 Mil Material, Add	49.08	
For 100 Mil Material, Add	98.17	
For 125 Mil Material, Add	152.15	
For 150 Mil Material, Add	206.12	
For 200 Mil Material, Add	294.41	
For 2 To 5 Manholes, Deduct	-32.45	
For 6 To 10 Manholes, Deduct	-53.59	
For >10 Manholes, Deduct	-107.18	
33 01 30 82-0006 VLF 60 Mil Epoxy Restoration Of 6' Diameter Manhole Interior.....	542.64	
For 80 Mil Material, Add	58.90	
For 100 Mil Material, Add	117.80	
For 125 Mil Material, Add	182.57	
For 150 Mil Material, Add	247.34	
For 200 Mil Material, Add	353.28	
For 2 To 5 Manholes, Deduct	-38.94	
For 6 To 10 Manholes, Deduct	-64.31	
For >10 Manholes, Deduct	-128.61	
33 01 30 83 Lining For Concrete Manholes (33 01 30)		
33 01 30 83-0001 Manhole Lining (33 01 30 83)		
Note: Includes power washing and cleaning of manhole interiors.		
33 01 30 83-0002 Cementitious Manhole Restoration, Interior (33 01 30 83-0001)		
33 01 30 83-0003 VLF 1/2" Cementitious Restoration On 3' Diameter Manhole Interior.....	118.70	
For Each Additional 1/2" Thick Material, Add	27.09	
For 2 To 5 Manholes, Deduct	-8.43	
For 6 To 10 Manholes, Deduct	-13.89	
For >10 Manholes, Deduct	-27.77	
33 01 30 83-0004 VLF 1/2" Cementitious Restoration On 3-1/2' Diameter Manhole Interior.....	137.61	
For Each Additional 1/2" Thick Material, Add	31.51	
For 2 To 5 Manholes, Deduct	-9.77	
For 6 To 10 Manholes, Deduct	-16.09	
For >10 Manholes, Deduct	-32.18	
33 01 30 83-0005 VLF 1/2" Cementitious Restoration On 4' Diameter Manhole Interior.....	156.52	
For Each Additional 1/2" Thick Material, Add	35.94	
For 2 To 5 Manholes, Deduct	-11.11	
For 6 To 10 Manholes, Deduct	-18.30	
For >10 Manholes, Deduct	-36.59	
33 01 30 83-0006 VLF 1/2" Cementitious Restoration On 5' Diameter Manhole Interior.....	184.00	
For Each Additional 1/2" Thick Material, Add	43.89	
For 2 To 5 Manholes, Deduct	-13.00	
For 6 To 10 Manholes, Deduct	-21.41	
For >10 Manholes, Deduct	-42.81	
33 01 30 83-0007 VLF 1/2" Cementitious Restoration On 6' Diameter Manhole Interior.....	200.69	
For Each Additional 1/2" Thick Material, Add	50.51	
For 2 To 5 Manholes, Deduct	-14.10	
For 6 To 10 Manholes, Deduct	-23.18	
For >10 Manholes, Deduct	-46.37	
33 01 30 83-0008 Polyurethane Manhole Restoration, Interior (33 01 30 83-0001)		



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 83-0009 VLF 60 Mil Polyurethane Restoration Of 3' Diameter Manhole Interior	248.40	
<i>For 80 Mil Material, Add</i>	21.81	
<i>For 100 Mil Material, Add</i>	43.62	
<i>For 125 Mil Material, Add</i>	66.46	
<i>For 150 Mil Material, Add</i>	89.29	
<i>For 200 Mil Material, Add</i>	123.16	
<i>For 2 To 5 Manholes, Deduct</i>	-18.32	
<i>For 6 To 10 Manholes, Deduct</i>	-30.43	
<i>For >10 Manholes, Deduct</i>	-60.87	
33 01 30 83-0010 VLF 60 Mil Polyurethane Restoration Of 3-1/2' Diameter Manhole Interior	302.91	
<i>For 80 Mil Material, Add</i>	26.43	
<i>For 100 Mil Material, Add</i>	52.86	
<i>For 125 Mil Material, Add</i>	80.48	
<i>For 150 Mil Material, Add</i>	108.11	
<i>For 200 Mil Material, Add</i>	148.93	
<i>For 2 To 5 Manholes, Deduct</i>	-22.36	
<i>For 6 To 10 Manholes, Deduct</i>	-37.15	
<i>For >10 Manholes, Deduct</i>	-74.29	
33 01 30 83-0011 VLF 60 Mil Polyurethane Restoration Of 4' Diameter Manhole Interior	331.19	
<i>For 80 Mil Material, Add</i>	29.08	
<i>For 100 Mil Material, Add</i>	58.16	
<i>For 125 Mil Material, Add</i>	88.60	
<i>For 150 Mil Material, Add</i>	119.05	
<i>For 200 Mil Material, Add</i>	164.20	
<i>For 2 To 5 Manholes, Deduct</i>	-24.43	
<i>For 6 To 10 Manholes, Deduct</i>	-40.58	
<i>For >10 Manholes, Deduct</i>	-81.16	
33 01 30 83-0012 VLF 60 Mil Polyurethane Restoration Of 5' Diameter Manhole Interior	413.99	
<i>For 80 Mil Material, Add</i>	36.35	
<i>For 100 Mil Material, Add</i>	72.70	
<i>For 125 Mil Material, Add</i>	110.75	
<i>For 150 Mil Material, Add</i>	148.81	
<i>For 200 Mil Material, Add</i>	205.25	
<i>For 2 To 5 Manholes, Deduct</i>	-30.54	
<i>For 6 To 10 Manholes, Deduct</i>	-50.72	
<i>For >10 Manholes, Deduct</i>	-101.45	
33 01 30 83-0013 VLF 60 Mil Polyurethane Restoration Of 6' Diameter Manhole Interior	496.79	
<i>For 80 Mil Material, Add</i>	43.62	
<i>For 100 Mil Material, Add</i>	87.23	
<i>For 125 Mil Material, Add</i>	132.90	
<i>For 150 Mil Material, Add</i>	178.57	
<i>For 200 Mil Material, Add</i>	246.30	
<i>For 2 To 5 Manholes, Deduct</i>	-36.64	
<i>For 6 To 10 Manholes, Deduct</i>	-60.87	
<i>For >10 Manholes, Deduct</i>	-121.74	
33 01 30 83-0014 Multiplexx™ PVCP Cured-In-Place (CIP) Lining Manhole Restoration, Interior <small>(33 01 30 83-0001)</small>		
33 01 30 83-0015 VLF 3' Diameter, Multiplexx™ PVCP Cured-In-Place (CIP) Manhole Liner For Existing Manhole	360.43	
<i>For 2 To 5 Manholes, Deduct</i>	-21.51	
<i>For 6 To 10 Manholes, Deduct</i>	-34.02	
<i>For >10 Manholes, Deduct</i>	-68.03	
33 01 30 83-0016 VLF 3-1/2' Diameter, Multiplexx™ PVCP Cured-In-Place (CIP) Manhole Liner For Existing Manhole	441.30	
<i>For 2 To 5 Manholes, Deduct</i>	-26.33	
<i>For 6 To 10 Manholes, Deduct</i>	-41.63	
<i>For >10 Manholes, Deduct</i>	-83.27	
33 01 30 83-0017 VLF 4' Diameter, Multiplexx™ PVCP Cured-In-Place (CIP) Manhole Liner For Existing Manhole	516.47	
<i>For 2 To 5 Manholes, Deduct</i>	-30.48	
<i>For 6 To 10 Manholes, Deduct</i>	-48.05	
<i>For >10 Manholes, Deduct</i>	-96.10	
33 01 30 83-0018 VLF 5' Diameter, Multiplexx™ PVCP Cured-In-Place (CIP) Manhole Liner For Existing Manhole	647.50	
<i>For 2 To 5 Manholes, Deduct</i>	-38.20	
<i>For 6 To 10 Manholes, Deduct</i>	-60.20	
<i>For >10 Manholes, Deduct</i>	-120.41	
33 01 30 83-0019 VLF 6' Diameter, Multiplexx™ PVCP Cured-In-Place (CIP) Manhole Liner For Existing Manhole	778.54	
<i>For 2 To 5 Manholes, Deduct</i>	-45.91	
<i>For 6 To 10 Manholes, Deduct</i>	-72.36	
<i>For >10 Manholes, Deduct</i>	-144.72	
33 01 30 86 Manhole Rim Adjustment <small>(33 01 30)</small>		
33 01 30 86-0001 Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Risers <small>(33 01 30 86)</small>		
33 01 30 86-0002 Up To 6" Rise, Up To 26" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Risers <small>(33 01 30 86-0001)</small>		
33 01 30 86-0003 EA Up To 2" Rise, Up To 26" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser.....	287.72	
33 01 30 86-0004 EA >2" To 3" Rise, Up To 26" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	322.29	
33 01 30 86-0005 EA >3" To 4" Rise, Up To 26" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	353.91	
33 01 30 86-0006 EA >4" To 5" Rise, Up To 26" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	389.65	
33 01 30 86-0007 EA >5" To 6" Rise, Up To 26" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	419.13	

33 Utilities**33 01 Operation And Maintenance Of Utilities****33 01 30 Operation And Maintenance Of Sewer Utilities**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 01 30 86-0008 Up To 6" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser <small>(33 01 30 86-0001)</small>		
33 01 30 86-0009 EA Up To 2" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser.....	334.30	
33 01 30 86-0010 EA >2 To 3" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	363.85	
33 01 30 86-0011 EA >3" To 4" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser.....	400.68	
33 01 30 86-0012 EA >4" To 5" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	436.42	
33 01 30 86-0013 EA >5" To 6" Rise, >26" To 32-1/2" Diameter, Adjustable Or Solid, Cast Iron Or Steel, Manhole Cover Riser	471.07	
33 01 30 86-0014 >6" To 12" Rise, >32-1/2" To 36" Diameter, Solid, Cast Iron, Manhole Cover Risers <small>(33 01 30 86-0001)</small>		
33 01 30 86-0015 EA >6" To 6-1/2" Rise, >32-1/2" To 36", Solid, Cast Iron, Manhole Cover Riser	468.17	
33 01 30 86-0016 EA 7" Rise, >32-1/2" To 36", Solid, Cast Iron, Manhole Cover Riser	508.42	
33 01 30 86-0017 EA 7-1/2" Rise, >32-1/2" To 36", Solid, Cast Iron, Manhole Cover Riser.....	549.44	
33 01 30 86-0018 EA 8" Rise, >32-1/2" To 36", Solid, Cast Iron, Manhole Cover Riser	582.69	
33 01 30 86-0019 EA 9" Rise, >32-1/2" To 36", Solid, Cast Iron, Manhole Cover Riser	632.32	
33 01 30 86-0020 EA 10" Rise, >32-1/2" To 36", Solid, Cast Iron, Manhole Cover Riser	677.83	
33 01 30 86-0021 EA 11" Rise, >32-1/2" To 36", Solid, Cast Iron, Manhole Cover Riser.....	722.63	
33 01 30 86-0022 EA 12" Rise, >32-1/2" To 36", Solid, Cast Iron, Manhole Cover Riser	768.51	
33 01 30 86-0023 >12" Rise, Solid Manhole Risers <small>(33 01 30 86)</small>		
33 01 30 86-0024 Precast Concrete Manhole Riser <small>(33 01 30 86-0023)</small>		
33 01 30 86-0025 VLF Up To 26" Diameter Precast Concrete Manhole Riser	83.29	
33 01 30 86-0026 VLF >26" To 36" Diameter Precast Concrete Manhole Riser	99.84	
33 01 30 86-0027 VLF >36" To 48" Diameter Precast Concrete Manhole Riser	113.67	
33 01 30 86-0028 VLF >48" To 60" Diameter Precast Concrete Manhole Riser	221.18	
33 01 30 86-0029 VLF >60" To 72" Diameter Precast Concrete Manhole Riser	325.85	
33 01 34 Operation and Maintenance of Onsite Wastewater Disposal Systems <small>(33 01)</small>		
33 01 34 13 Septic Tank Solids Removal <small>(33 01 34)</small>		
33 01 34 13-0001 Pump Out Septic Tanks <small>(33 01 34 13)</small>		
33 01 34 13-0002 GAL Pump Out Septic Tank And Dispose.....		0.52
33 05 Common Work Results For Utilities <small>(33)</small>		
33 05 07 Trenchless Installation of Utility Piping <small>(33 05)</small>		
33 05 07 13 Utility Directional Drilling <small>(33 05 07)</small>		
33 05 07 13-0001 Horizontal Augering <small>(33 05 07 13)</small>		
Note: Excludes starting or receiving pits, dewatering, cost of casing pipe or spoils removal.		
33 05 07 13-0002 LF Up To 2" Diameter Horizontal Hand Augering.....	22.93	
33 05 07 13-0003 LF 3" Diameter Horizontal Hand Augering	27.68	
33 05 07 13-0004 LF 4" Diameter Horizontal Hand Augering	37.97	
33 05 07 13-0005 LF 6" Diameter Horizontal Hand Augering	49.04	
33 05 07 13-0006 LF 8" Diameter Horizontal Augering	83.01	
33 05 07 13-0007 LF 10" Diameter Horizontal Augering	121.09	
33 05 07 13-0008 LF 12" Diameter Horizontal Augering.....	145.50	
33 05 07 13-0009 LF 16" Diameter Horizontal Augering.....	173.83	
33 05 07 13-0010 LF 20" Diameter Horizontal Augering	300.78	
33 05 07 13-0011 LF 24" Diameter Horizontal Augering.....	367.50	
33 05 07 13-0012 LF 30" Diameter Horizontal Augering.....	453.28	
33 05 07 13-0013 LF 36" Diameter Horizontal Augering.....	517.89	
33 05 07 13-0014 LF 42" Diameter Horizontal Augering.....	636.40	
33 05 07 13-0015 LF 48" Diameter Horizontal Augering.....	685.73	
33 05 07 13-0016 LF 54" Diameter Horizontal Augering.....	745.76	
33 05 07 13-0017 LF 60" Diameter Horizontal Augering.....	781.85	
33 05 07 13-0018 EA 8" To 20" Horizontal Augering Minimum Set-up Charge	3,515.56	
Note: For projects where the total horizontal augering charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.		
33 05 07 13-0019 EA >20" To 36" Horizontal Augering Minimum Set-up Charge.....	4,659.95	
Note: For projects where the total horizontal augering charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.		
33 05 07 13-0020 EA >36" Horizontal Augering Minimum Set-up Charge.....	6,496.65	
Note: For projects where the total horizontal augering charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.		
33 05 07 13-0021 Horizontal Directional Boring <small>(33 05 07 13)</small>		
Note: Excludes receiving pits or dewatering or cost of casing pipe.		
33 05 07 13-0022 LF Up To 1-1/2" Diameter Directional Boring For Horizontal Pipe, Underground.....	11.55	
For Horizontal Boring Through Rock, Add		8.09



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 07 13-0023 LF 2" Diameter Directional Boring For Horizontal Pipe, Underground..... <i>For Horizontal Boring Through Rock, Add</i>	17.33 12.13	
33 05 07 13-0024 LF 2-1/2" Diameter Directional Boring For Horizontal Pipe, Underground <i>For Horizontal Boring Through Rock, Add</i>	24.07 16.85	
33 05 07 13-0025 LF 3" Diameter Directional Boring For Horizontal Pipe, Underground..... <i>For Horizontal Boring Through Rock, Add</i>	29.85 20.90	
33 05 07 13-0026 LF 4" Diameter Directional Boring For Horizontal Pipe, Underground..... <i>For Horizontal Boring Through Rock, Add</i>	35.62 24.93	
33 05 07 13-0027 LF 5" Diameter Directional Boring For Horizontal Pipe, Underground..... <i>For Horizontal Boring Through Rock, Add</i>	41.40 28.98	
33 05 07 13-0028 LF 6" Diameter Directional Boring For Horizontal Pipe, Underground..... <i>For Horizontal Boring Through Rock, Add</i>	48.14 33.70	
33 05 07 13-0029 LF 8" Diameter Directional Boring For Horizontal Pipe, Underground..... <i>For Horizontal Boring Through Rock, Add</i>	58.60 41.02	
33 05 07 13-0030 LF 10" Diameter Directional Boring For Horizontal Pipe, Underground..... <i>For Horizontal Boring Through Rock, Add</i>	63.48 44.44	
33 05 07 13-0031 LF 12" Diameter Directional Boring For Horizontal Pipe, Underground..... <i>For Horizontal Boring Through Rock, Add</i>	68.35 47.85	
33 05 07 13-0032 LF 18" Diameter Directional Boring For Horizontal Pipe, Underground..... <i>For Horizontal Boring Through Rock, Add</i>	141.60 99.12	
33 05 07 13-0033 LF 24" Diameter Directional Boring For Horizontal Pipe, Underground..... <i>For Horizontal Boring Through Rock, Add</i>	217.11 151.98	
33 05 07 13-0034 LF 30" Diameter Directional Boring For Horizontal Pipe, Underground..... <i>For Horizontal Boring Through Rock, Add</i>	330.96 231.67	
33 05 07 13-0035 LF 36" Diameter Directional Boring For Horizontal Pipe, Underground..... <i>For Horizontal Boring Through Rock, Add</i>	529.54 370.68	
33 05 07 13-0036 EA Up To 6" Horizontal Directional Boring Minimum Set-up Charge..... Note: For projects where the total horizontal directional boring charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.	3,080.93	
33 05 07 13-0037 EA >6" To 18" Horizontal Directional Boring Minimum Set-up Charge..... Note: For projects where the total horizontal directional boring charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.	3,515.56	
33 05 07 13-0038 EA >18" To 36" Horizontal Directional Boring Minimum Set-up Charge..... Note: For projects where the total horizontal directional boring charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.	4,659.95	

33 05 07 23 Utility Boring and Jacking (33 05 07)

33 05 07 23-0001 Horizontal Jacking (33 05 07 23)

Note: Includes cost of steel casing pipe, excludes dewatering and excavation for jacking pit or receiving pit.

33 05 07 23-0002 LF Up To 2" Diameter Horizontal Jacking <i>For Horizontal Jacking Through Rock, Add</i>	46.55 24.42	
33 05 07 23-0003 LF 3" Diameter Horizontal Jacking <i>For Horizontal Jacking Through Rock, Add</i>	55.89 29.48	
33 05 07 23-0004 LF 4" Diameter Horizontal Jacking <i>For Horizontal Jacking Through Rock, Add</i>	75.78 40.43	
33 05 07 23-0005 LF 6" Diameter Horizontal Jacking <i>For Horizontal Jacking Through Rock, Add</i>	97.92 52.21	
33 05 07 23-0006 LF 8" Diameter Horizontal Jacking <i>For Horizontal Jacking Through Rock, Add</i>	133.00 71.58	
33 05 07 23-0007 LF 10" Diameter Horizontal Jacking <i>For Horizontal Jacking Through Rock, Add</i>	194.78 104.43	
33 05 07 23-0008 LF 12" Diameter Horizontal Jacking <i>For Horizontal Jacking Through Rock, Add</i>	234.40 125.48	
33 05 07 23-0009 LF 16" Diameter Horizontal Jacking <i>For Horizontal Jacking Through Rock, Add</i>	279.89 149.91	
33 05 07 23-0010 LF 20" Diameter Horizontal Jacking <i>For Horizontal Jacking Through Rock, Add</i>	447.03 260.22	
33 05 07 23-0011 LF 24" Diameter Horizontal Jacking <i>For Horizontal Jacking Through Rock, Add</i>	682.29 292.04	
33 05 07 23-0012 LF 30" Diameter Horizontal Jacking <i>For Horizontal Jacking Through Rock, Add</i>	801.46 360.61	
33 05 07 23-0013 LF 36" Diameter Horizontal Jacking <i>For Horizontal Jacking Through Rock, Add</i>	907.15 412.33	
33 05 07 23-0014 LF 42" Diameter Horizontal Jacking <i>For Horizontal Jacking Through Rock, Add</i>	975.41 445.26	
33 05 07 23-0015 LF 48" Diameter Horizontal Jacking <i>For Horizontal Jacking Through Rock, Add</i>	1,056.50 479.76	
33 05 07 23-0016 LF 54" Diameter Horizontal Jacking <i>For Horizontal Jacking Through Rock, Add</i>	1,132.84 522.14	
33 05 07 23-0017 EA Up To 6" Horizontal Jacking Minimum Set-up Charge..... Note: For projects where the total horizontal jacking charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.	3,080.93	
33 05 07 23-0018 EA >6" To 20" Horizontal Jacking Minimum Set-up Charge..... Note: For projects where the total horizontal jacking charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.	3,515.56	
33 05 07 23-0019 EA >20" To 36" Horizontal Jacking Minimum Set-up Charge..... Note: For projects where the total horizontal jacking charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.	4,659.95	
33 05 07 23-0020 EA >36" Horizontal Jacking Minimum Set-up Charge..... Note: For projects where the total horizontal jacking charge is less than the minimum set-up charge, use this task exclusively. This task should not be used in conjunction with any other tasks in this section.	6,496.65	

33 Utilities**33 05 Common Work Results For Utilities****33 05 07 Trenchless Installation of Utility Piping**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST**33 05 07 24 Casing Piping for Utility Jacking (33 05 07)**

33 05 07 24-0001

Casing Pipe (33 05 07 24)

Note: Casing pipe is pulled back from hook on boring auger through slurry. Costs are installed costs. Excludes boring.

33 05 07 24-0002

Steel Pipe (33 05 07 24-0001)

33 05 07 24-0003	LF	1-1/2" Steel Pipe Pull In Place By Boring Machine	11.75
		Note: Includes pipe welding.	
33 05 07 24-0004	LF	2" Steel Pipe Pull In Place By Boring Machine.....	12.46
		Note: Includes pipe welding.	
33 05 07 24-0005	LF	2-1/2" Steel Pipe Pull In Place By Boring Machine	13.43
		Note: Includes pipe welding.	
33 05 07 24-0006	LF	3" Steel Pipe Pull In Place By Boring Machine.....	14.44
		Note: Includes pipe welding.	
33 05 07 24-0007	LF	4" Steel Pipe Pull In Place By Boring Machine.....	18.13
		Note: Includes pipe welding.	
33 05 07 24-0008	LF	5" Steel Pipe Pull In Place By Boring Machine.....	20.44
		Note: Includes pipe welding.	
33 05 07 24-0009	LF	6" Steel Pipe Pull In Place By Boring Machine.....	22.75
		Note: Includes pipe welding.	

33 05 07 24-0010

Polyethylene Pipe (33 05 07 24-0001)

33 05 07 24-0011	LF	3/4" Polyethylene Pipe Pull In Place By Boring Machine	4.58
		Note: Includes pipe welding.	
33 05 07 24-0012	LF	1" Polyethylene Pipe Pull In Place By Boring Machine	5.01
		Note: Includes pipe welding.	
33 05 07 24-0013	LF	1-1/4" Polyethylene Pipe Pull In Place By Boring Machine	5.45
		Note: Includes pipe welding.	
33 05 07 24-0014	LF	1-1/2" Polyethylene Pipe Pull In Place By Boring Machine	5.82
		Note: Includes pipe welding.	
33 05 07 24-0015	LF	2" Polyethylene Pipe Pull In Place By Boring Machine	6.22
		Note: Includes pipe welding.	
33 05 07 24-0016	LF	2-1/2" Polyethylene Pipe Pull In Place By Boring Machine	6.66
		Note: Includes pipe welding.	
33 05 07 24-0017	LF	3" Polyethylene Pipe Pull In Place By Boring Machine	7.10
		Note: Includes pipe welding.	
33 05 07 24-0018	LF	4" Polyethylene Pipe Pull In Place By Boring Machine	8.62
		Note: Includes pipe welding.	
33 05 07 24-0019	LF	5" Polyethylene Pipe Pull In Place By Boring Machine	9.54
		Note: Includes pipe welding.	
33 05 07 24-0020	LF	6" Polyethylene Pipe Pull In Place By Boring Machine	10.48
		Note: Includes pipe welding.	
33 05 07 24-0021	LF	8" Polyethylene Pipe Pull In Place By Boring Machine	13.66
		Note: Includes pipe welding.	
33 05 07 24-0022	LF	10" Polyethylene Pipe Pull In Place By Boring Machine	18.62
		Note: Includes pipe welding.	

33 05 09 Piping Specials for Utilities (33 05)

33 05 09 23

Adapters for Utility Piping (33 05 09)

See CSI section 33 14 13 53-0222 for ductile iron body adapters, 33 14 13 53-0229 for steel body adapters.

33 05 09 33

Thrust Restraint for Utility Piping (33 05 09)

See CSI section 33 14 13 13-0545 for mechanical restraints, 33 14 13 13-0580 for flanged restraints, 33 14 13 13-1152 for slip-on restraints, 33 14 13 13-1168 for slip-on restraint harnesses.

33 05 16 Cast-Iron Utility Pipe (33 05)

See CSI section 22 13 16 00-0019 for cast iron utility piping.

33 05 17 Copper Utility Pipe and Tubing (33 05)

See CSI section 33 14 13 39-0000 for copper utility piping.

33 05 19 Ductile-Iron Utility Pipe (33 05)

See CSI section 33 14 13 13-0000 for ductile iron utility piping.

33 05 24 Steel Utility Pipe (33 05)

33 05 24 23

Steel Pipe for Water Service (33 05 24)

See CSI section 33 14 13 26-0000 for galvanized steel utility piping, 33 14 13 36-0000 for steel utility piping.

33 05 27 Corrugated Metal Utility Pipe (33 05)

33 05 27 13

Corrugated Metal Culvert Pipe (33 05 27)

See CSI section 33 42 11 00-0477 for corrugated metal culvert pipe.

33 05 27 23

Corrugated Metal Slotted Pipe (33 05 27)

See CSI section 33 41 16 13-0044 for corrugated metal slotted pipe.

33 05 27 33

Corrugated Metal Culvert Arch Pipe (33 05 27)

See CSI section 33 42 11 00-0821 for corrugated metal culvert arch pipe.

33 05 31 Thermoplastic Utility Pipe (33 05)



	MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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33 05 31 11	Polyvinyl Chloride Gravity Sewer Pipe <small>(33 05 31)</small> See CSI section 33 31 11 00-0000 for polyvinyl chloride gravity sewer pipe.		
33 05 31 13	Polyvinyl Chloride Pressure Pipe <small>(33 05 31)</small> See CSI section 33 14 13 23-0001 for polyvinyl chloride pressure pipe.		
33 05 31 16	Polyvinyl Chloride Pressure Pipe for Water Transmission and Distribution (AWWA C900 and AWWA C905) <small>(33 05 31)</small> See CSI section 33 14 13 23-0171 for AWWA C900 and 905 polyvinyl chloride pressure pipe.		
33 05 33	Polyethylene Utility Pipe <small>(33 05)</small>		
33 05 33 13	Corrugated-Wall, Smooth Interior HDPE Gravity Pipe <small>(33 05 33)</small> See CSI section 33 42 11 00-0209 for corrugated-wall smooth interior HDPE gravity pipe.		
33 05 33 23	Polyethylene Pressure Pipe and Tubing (AWWA C901 and AWWA C906) <small>(33 05 33)</small> See CSI section 33 14 13 23-0426 for AWWA C906 high density polyethylene pipe.		
33 05 33 33	Corrugated, Perforated HDPE Drainage Pipe <small>(33 05 33)</small> See CSI section 33 42 11 00-0241 for corrugated perforated HDPE drainage pipe.		
33 05 33 36	Corrugated, Non-Perforated HDPE Drainage Pipe <small>(33 05 33)</small> See CSI section 33 42 11 00-0231 for corrugated non-perforated HDPE drainage pipe.		
33 05 33 53	HDPE Gas Utility Pipe <small>(33 05 33)</small> See CSI section 33 52 16 26-0001 for high-density polyethylene gas utility pipe.		
33 05 33 63	HDPE Communication Duct <small>(33 05 33)</small>		
33 05 33 63-0001	ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine <small>(33 05 33 63)</small> Note: Excludes boring.		
33 05 33 63-0002	LF 1" Schedule 40, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine For Up To 250, Add For >250 To 500, Add		2.70 0.07 0.05
33 05 33 63-0003	LF 1-1/4" Schedule 40, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine For Up To 250, Add For >250 To 500, Add		3.02 0.09 0.06
33 05 33 63-0004	LF 1-1/2" Schedule 40, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine For Up To 250, Add For >250 To 500, Add		3.26 0.10 0.07
33 05 33 63-0005	LF 2" Schedule 40, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine For Up To 250, Add For >250 To 500, Add		3.57 0.12 0.08
33 05 33 63-0006	LF 3" Schedule 40, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine For Up To 250, Add For >250 To 500, Add		4.64 0.24 0.16
33 05 33 63-0007	LF 4" Schedule 40, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine For Up To 250, Add For >250 To 500, Add		5.75 0.37 0.25
33 05 33 63-0008	LF 1" Schedule 80, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine For Up To 250, Add For >250 To 500, Add		2.75 0.08 0.05
33 05 33 63-0009	LF 1-1/4" Schedule 80, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine For Up To 250, Add For >250 To 500, Add		3.11 0.10 0.07
33 05 33 63-0010	LF 1-1/2" Schedule 80, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine For Up To 250, Add For >250 To 500, Add		3.34 0.11 0.07
33 05 33 63-0011	LF 2" Schedule 80, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine For Up To 250, Add For >250 To 500, Add		3.75 0.14 0.10
33 05 33 63-0012	LF 3" Schedule 80, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine For Up To 250, Add For >250 To 500, Add		5.05 0.31 0.20
33 05 33 63-0013	LF 4" Schedule 80, ASTM F2160, UL 651-A, NEMA TC-7, Smoothwall HDPE Conduit, Pulled In Place By Boring Machine For Up To 250, Add For >250 To 500, Add		6.27 0.45 0.30

33 05 39	Concrete Pipe <small>(33 05)</small>		
33 05 39 13	Prestressed Concrete Pressure Pipe, Steel-Cylinder Type (AWWA C301) <small>(33 05 39)</small> See CSI section 33 42 11 00-0062 for prestressed concrete pressure pipe.		

33 Utilities**33 05 Common Work Results For Utilities****33 05 39 Concrete Pipe**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST**33 05 39 41 Reinforced Concrete Pipe for Sewers and Culverts** (33 05 39)

See CSI section 33 42 11 00-0001 for reinforced concrete pipe.

33 05 41 Vitrified Clay Utility Pipe (33 05)

See CSI section 33 42 11 00-0375 for vitrified clay piping.

33 05 61 Concrete Manholes (33 05)**33 05 61 00-0001 Manholes** (33 05 61)**33 05 61 00-0002 Precast Concrete Manholes** (33 05 61 00-0001)

Note: Includes base, riser(s), reducer and openings. See CSI section 33 05 84 00-0002 for top slabs.

33 05 61 00-0003 3' Diameter, Precast Concrete Manholes (33 05 61 00-0002)

33 05 61 00-0004	EA	4' Deep, 3' Diameter, Precast Concrete Manhole	1,133.64	248.74
		For Bitumastic Coating, Add	45.65	
		For Epoxy Coating, Add	87.24	
33 05 61 00-0005	EA	6' Deep, 3' Diameter, Precast Concrete Manhole	1,555.38	357.28
		For Bitumastic Coating, Add	68.48	
		For Epoxy Coating, Add	130.86	
33 05 61 00-0006	EA	8' Deep, 3' Diameter, Precast Concrete Manhole	2,130.88	542.71
		For Bitumastic Coating, Add	91.30	
		For Epoxy Coating, Add	174.48	
33 05 61 00-0007	VLF	Riser For 3' Diameter, Precast Concrete Manhole	228.95	63.32
		Note: For depths greater than 8'.		
		For Bitumastic Coating, Add	11.41	
		For Epoxy Coating, Add	21.81	
33 05 61 00-0008	VLF	Drop Collar For 3' Diameter, Precast Concrete Manhole	243.96	63.32
33 05 61 00-0009	EA	Drop Base For 3' Diameter, Precast Concrete Manhole	368.88	63.32
33 05 61 00-0010	EA	Extended Base Slab For 3' Diameter, Precast Concrete Manhole	301.80	63.32
33 05 61 00-0011	EA	Precast Channel For 3' Diameter, Precast Concrete Manhole	416.05	63.32

33 05 61 00-0012 4' Diameter, Precast Concrete Manholes (33 05 61 00-0002)

33 05 61 00-0013	EA	4' Deep, 4' Diameter, Precast Concrete Manhole	1,421.81	284.93
		For Bitumastic Coating, Add	45.65	
		For Epoxy Coating, Add	87.24	
33 05 61 00-0014	EA	6' Deep, 4' Diameter, Precast Concrete Manhole	1,904.98	388.95
		For Bitumastic Coating, Add	68.48	
		For Epoxy Coating, Add	130.86	
33 05 61 00-0015	EA	8' Deep, 4' Diameter, Precast Concrete Manhole	2,569.81	587.94
		For Bitumastic Coating, Add	91.30	
		For Epoxy Coating, Add	174.48	
33 05 61 00-0016	VLF	Riser For 4' Diameter, Precast Concrete Manhole	283.41	74.63
		Note: For depths greater than 8'.		
		For Bitumastic Coating, Add	11.41	
		For Epoxy Coating, Add	21.81	
33 05 61 00-0017	VLF	Drop Collar For 4' Diameter, Precast Concrete Manhole	303.43	74.63
33 05 61 00-0018	EA	Drop Base For 4' Diameter, Precast Concrete Manhole	469.97	74.63
33 05 61 00-0019	EA	Extended Base Slab For 4' Diameter, Precast Concrete Manhole	380.54	74.63
33 05 61 00-0020	EA	Precast Channel For 4' Diameter, Precast Concrete Manhole	532.88	74.63

33 05 61 00-0021 5' Diameter, Precast Concrete Manholes (33 05 61 00-0002)

33 05 61 00-0022	EA	4' Deep, 5' Diameter, Precast Concrete Manhole	2,497.48	316.58
		For Bitumastic Coating, Add	58.82	
		For Epoxy Coating, Add	140.64	
33 05 61 00-0023	EA	6' Deep, 5' Diameter, Precast Concrete Manhole	3,334.56	434.17
		For Bitumastic Coating, Add	88.23	
		For Epoxy Coating, Add	210.96	
33 05 61 00-0024	EA	8' Deep, 5' Diameter, Precast Concrete Manhole	4,372.99	651.26
		For Bitumastic Coating, Add	117.64	
		For Epoxy Coating, Add	281.27	
33 05 61 00-0025	VLF	Riser For 5' Diameter, Precast Concrete Manhole	465.20	81.41
		Note: For depths greater than 8'.		
		For Bitumastic Coating, Add	14.71	
		For Epoxy Coating, Add	35.16	

33 05 61 00-0026 6' Diameter, Precast Concrete Manholes (33 05 61 00-0002)

33 05 61 00-0027	EA	4' Deep, 6' Diameter, Precast Concrete Manhole	3,293.60	352.76
		For Bitumastic Coating, Add	67.34	
		For Epoxy Coating, Add	164.65	
33 05 61 00-0028	EA	6' Deep, 6' Diameter, Precast Concrete Manhole	4,307.65	479.40
		For Bitumastic Coating, Add	101.01	
		For Epoxy Coating, Add	246.97	
33 05 61 00-0029	EA	8' Deep, 6' Diameter, Precast Concrete Manhole	5,547.11	723.62
		For Bitumastic Coating, Add	134.68	
		For Epoxy Coating, Add	329.30	
33 05 61 00-0030	VLF	Riser For 6' Diameter, Precast Concrete Manhole	558.50	90.45
		Note: For depths greater than 8'.		
		For Bitumastic Coating, Add	16.84	
		For Epoxy Coating, Add	41.16	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 61 00-0031 7' Diameter, Precast Concrete Manholes <small>(33 05 61 00-0002)</small>		
33 05 61 00-0032 EA 4' Deep, 7' Diameter, Precast Concrete Manhole	5,062.20	388.95
For Bitumastic Coating, Add	143.20	
For Epoxy Coating, Add	287.71	
33 05 61 00-0033 EA 6' Deep, 7' Diameter, Precast Concrete Manhole	6,567.67	530.50
For Bitumastic Coating, Add	214.80	
For Epoxy Coating, Add	431.57	
33 05 61 00-0034 EA 8' Deep, 7' Diameter, Precast Concrete Manhole	8,320.99	795.98
For Bitumastic Coating, Add	286.41	
For Epoxy Coating, Add	575.42	
33 05 61 00-0035 VLF Riser For 7' Diameter, Precast Concrete Manhole	810.18	99.50
Note: For depths greater than 8'.		
For Bitumastic Coating, Add	35.80	
For Epoxy Coating, Add	71.93	
33 05 61 00-0036 8' Diameter, Precast Concrete Manholes <small>(33 05 61 00-0002)</small>		
33 05 61 00-0037 EA 4' Deep, 8' Diameter, Precast Concrete Manhole	7,236.08	447.74
For Bitumastic Coating, Add	169.30	
For Epoxy Coating, Add	350.70	
33 05 61 00-0038 EA 6' Deep, 8' Diameter, Precast Concrete Manhole	9,406.04	610.56
For Bitumastic Coating, Add	253.95	
For Epoxy Coating, Add	526.04	
33 05 61 00-0039 EA 8' Deep, 8' Diameter, Precast Concrete Manhole	11,860.92	915.83
For Bitumastic Coating, Add	338.59	
For Epoxy Coating, Add	701.39	
33 05 61 00-0040 VLF Riser For 8' Diameter, Precast Concrete Manhole	1,148.29	113.06
Note: For depths greater than 8'.		
For Bitumastic Coating, Add	42.32	
For Epoxy Coating, Add	87.67	
33 05 63 Concrete Vaults and Chambers <small>(33 05)</small>		
33 05 63 00-0001 Underground Utility Vaults And Structures <small>(33 05 63)</small>		
See CSI section 33 05 61 00-0001 for manholes, 33 05 81 00-0006 for frames and covers.		
33 05 63 00-0002 Precast Concrete Underground Utility Vault <small>(33 05 63 00-0001)</small>		
Note: Sizes given are for inside dimensions.		
33 05 63 00-0003 6' High Precast Concrete Underground Utility Vault <small>(33 05 63 00-0002)</small>		
33 05 63 00-0004 EA 4' x 4' x 6' Precast Concrete Underground Utility Vault	2,700.49	
Note: 6" thick walls and 8" thick top.		
33 05 63 00-0005 EA 4' x 6' x 6' Precast Concrete Underground Utility Vault	3,520.12	
Note: 6" thick walls and 8" thick top.		
33 05 63 00-0006 EA 5' x 10' x 6' Precast Concrete Underground Utility Vault	5,807.42	
Note: 6" thick walls and 8" thick top.		
33 05 63 00-0007 EA 5' x 12' x 6' Precast Concrete Underground Utility Vault	6,705.57	
Note: 6" thick walls and 8" thick top.		
33 05 63 00-0008 EA 6' x 6' x 6' Precast Concrete Underground Utility Vault	4,498.56	
Note: 6" thick walls and 8" thick top.		
33 05 63 00-0009 EA 6' x 8' x 6' Precast Concrete Underground Utility Vault	5,476.08	
Note: 6" thick walls and 8" thick top.		
33 05 63 00-0010 EA 6' x 10' x 6' Precast Concrete Underground Utility Vault	6,454.54	
Note: 6" thick walls and 8" thick top.		
33 05 63 00-0011 EA 6' x 12' x 6' Precast Concrete Underground Utility Vault	9,325.58	
Note: 8" thick walls and top.		
33 05 63 00-0012 EA 6' x 14' x 6' Precast Concrete Underground Utility Vault	9,325.58	
Note: 8" thick walls and top.		
33 05 63 00-0013 EA 6' x 16' x 6' Precast Concrete Underground Utility Vault	11,742.37	
Note: 8" thick walls and top.		
33 05 63 00-0014 EA 8' x 8' x 6' Precast Concrete Underground Utility Vault	6,613.36	
Note: 6" thick walls and 8" thick top.		
33 05 63 00-0015 EA 8' x 10' x 6' Precast Concrete Underground Utility Vault	7,749.72	
Note: 6" thick walls and 8" thick top.		
33 05 63 00-0016 EA 8' x 12' x 6' Precast Concrete Underground Utility Vault	11,077.59	
Note: 8" thick walls and top.		
33 05 63 00-0017 EA 8' x 14' x 6' Precast Concrete Underground Utility Vault	12,467.81	
Note: 8" thick walls and top.		
33 05 63 00-0018 7' High Precast Concrete Underground Utility Vault <small>(33 05 63 00-0002)</small>		
33 05 63 00-0019 EA 4' x 4' x 7' Precast Concrete Underground Utility Vault	2,972.98	
Note: 6" thick walls and 8" thick top.		
33 05 63 00-0020 EA 4' x 6' x 7' Precast Concrete Underground Utility Vault	3,860.29	
Note: 6" thick walls and 8" thick top.		
33 05 63 00-0021 EA 4' x 8' x 7' Precast Concrete Underground Utility Vault	4,747.59	
Note: 6" thick walls and 8" thick top.		
33 05 63 00-0022 EA 5' x 10' x 7' Precast Concrete Underground Utility Vault	6,317.26	
Note: 6" thick walls and 8" thick top.		
33 05 63 00-0023 EA 5' x 12' x 7' Precast Concrete Underground Utility Vault	7,283.97	
Note: 6" thick walls and 8" thick top.		

33 Utilities**33 05 Common Work Results For Utilities****33 05 63 Concrete Vaults and Chambers**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0024 EA 6' x 6' x 7' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	4,906.41	
33 05 63 00-0025 EA 6' x 8' x 7' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	5,952.56	
33 05 63 00-0026 EA 6' x 10' x 7' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	6,998.66	
33 05 63 00-0027 EA 6' x 12' x 7' Precast Concrete Underground Utility Vault Note: 8" thick walls and top.	10,141.29	
33 05 63 00-0028 EA 6' x 16' x 7' Precast Concrete Underground Utility Vault Note: 8" thick walls and top.	12,739.45	
33 05 63 00-0029 EA 8' x 8' x 7' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	7,157.45	
33 05 63 00-0030 EA 8' x 10' x 7' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	8,361.52	
33 05 63 00-0031 EA 8' x 12' x 7' Precast Concrete Underground Utility Vault Note: 8" thick walls and top.	11,984.52	
33 05 63 00-0032 EA 8' x 14' x 7' Precast Concrete Underground Utility Vault Note: 8" thick walls and top.	13,463.98	
33 05 63 00-0033 EA 10' x 10' x 7' Precast Concrete Underground Utility Vault Note: 8" thick walls and top.	12,165.18	
33 05 63 00-0034 8' High Precast Concrete Underground Utility Vault (33 05 63 00-0002)		
33 05 63 00-0035 EA 4' x 4' x 8' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	3,244.59	
33 05 63 00-0036 EA 4' x 6' x 8' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	4,200.48	
33 05 63 00-0037 EA 5' x 10' x 8' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	6,827.08	
33 05 63 00-0038 EA 5' x 12' x 8' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	7,861.46	
33 05 63 00-0039 EA 6' x 6' x 8' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	5,314.27	
33 05 63 00-0040 EA 6' x 8' x 8' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	6,428.07	
33 05 63 00-0041 EA 6' x 10' x 8' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	7,541.90	
33 05 63 00-0042 EA 6' x 12' x 8' Precast Concrete Underground Utility Vault Note: 8" thick walls and top.	10,956.98	
33 05 63 00-0043 EA 6' x 16' x 8' Precast Concrete Underground Utility Vault Note: 8" thick walls and top.	13,736.57	
33 05 63 00-0044 EA 8' x 8' x 8' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	7,700.68	
33 05 63 00-0045 EA 8' x 10' x 8' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	8,973.29	
33 05 63 00-0046 EA 8' x 12' x 8' Precast Concrete Underground Utility Vault Note: 8" thick walls and top.	12,890.45	
33 05 63 00-0047 EA 8' x 14' x 8' Precast Concrete Underground Utility Vault Note: 8" thick walls and top.	14,461.10	
33 05 63 00-0048 EA 10' x 10' x 8' Precast Concrete Underground Utility Vault Note: 8" thick walls and top.	13,071.82	
33 05 63 00-0049 10' High Precast Concrete Underground Utility Vault (33 05 63 00-0002)		
33 05 63 00-0050 EA 6' x 6' x 10' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	5,722.15	
33 05 63 00-0051 EA 6' x 8' x 10' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	6,903.60	
33 05 63 00-0052 EA 10' x 10' x 10' Precast Concrete Underground Utility Vault Note: 8" thick walls and top.	13,977.72	
33 05 63 00-0053 12' High Precast Concrete Underground Utility Vault (33 05 63 00-0002)		
33 05 63 00-0054 EA 6' x 6' x 12' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	6,130.01	
33 05 63 00-0055 EA 6' x 8' x 12' Precast Concrete Underground Utility Vault Note: 6" thick walls and 8" thick top.	7,380.06	
33 05 63 00-0056 Meter Pit (33 05 63 00-0001)		
33 05 63 00-0057 Precast Concrete Meter Pit (33 05 63 00-0056)		
33 05 63 00-0058 EA 4' x 4' x 4' Deep Precast Concrete Meter Pit	1,947.21	
33 05 63 00-0059 EA 4' x 4' x 6' Deep Precast Concrete Meter Pit	2,582.48	
33 05 63 00-0060 EA 4' x 4' x 8' Deep Precast Concrete Meter Pit	3,158.83	
33 05 63 00-0061 EA 4' x 4' x 10' Deep Precast Concrete Meter Pit	3,865.45	
33 05 63 00-0062 EA 4' x 4' x 15' Deep Precast Concrete Meter Pit	5,176.61	
33 05 63 00-0063 EA 6' x 6' x 4' Deep Precast Concrete Meter Pit	2,898.77	
33 05 63 00-0064 EA 6' x 6' x 6' Deep Precast Concrete Meter Pit	3,865.45	
33 05 63 00-0065 EA 6' x 6' x 8' Deep Precast Concrete Meter Pit	4,899.94	
33 05 63 00-0066 EA 6' x 6' x 10' Deep Precast Concrete Meter Pit	6,116.05	
33 05 63 00-0067 EA 6' x 6' x 15' Deep Precast Concrete Meter Pit	8,348.95	



	MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0068		Handhole Or Pull Box Enclosures (33 05 63 00-0001)		
33 05 63 00-0069		Polymer Concrete Handhole Enclosures (33 05 63 00-0068)		
33 05 63 00-0070		Polymer Concrete Handhole Enclosures (33 05 63 00-0069)		
33 05 63 00-0071		Flared Sides, Polymer Concrete Handhole Enclosures (33 05 63 00-0070)		
33 05 63 00-0072		Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosures (33 05 63 00-0071)		
33 05 63 00-0073	EA	12" x 12", 24" Depth, 15,000 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	225.79	20.98
33 05 63 00-0074	EA	10" x 15", 18" Depth, 15,000 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	206.29	46.59
33 05 63 00-0075	EA	13" x 24", 18" Depth, 15,000 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	314.47	69.88
33 05 63 00-0076	EA	17" x 30", 18" Depth, 15,000 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	361.01	69.88
33 05 63 00-0077	EA	13" x 24", 18" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	345.64	69.88
33 05 63 00-0078	EA	13" x 24", 26" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	412.76	69.88
33 05 63 00-0079	EA	17" x 30", 18" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	402.63	69.88
33 05 63 00-0080	EA	17" x 30", 26" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	538.55	69.88
33 05 63 00-0081	EA	27" Round, 36" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	762.48	93.17
33 05 63 00-0082	EA	27" Round, 48" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,054.99	93.17
33 05 63 00-0083	EA	24" x 36", 18" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	709.57	128.11
33 05 63 00-0084	EA	24" x 36", 26" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	801.18	128.11
33 05 63 00-0085	EA	24" x 36", 48" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,277.70	128.11
33 05 63 00-0086	EA	39" Round, 18" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	758.91	139.75
33 05 63 00-0087	EA	39" Round, 24" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,058.97	139.75
33 05 63 00-0088	EA	39" Round, 36" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,304.34	139.75
33 05 63 00-0089	EA	39" Round, 48" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,884.69	139.75
33 05 63 00-0090	EA	30" x 48", 24" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,081.22	202.76
33 05 63 00-0091	EA	30" x 48", 48" Depth, 22,500 LB Design Load, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,532.82	202.76
33 05 63 00-0092		Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosures (33 05 63 00-0071)		
33 05 63 00-0093	EA	12" x 12", 24" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	286.59	20.98
33 05 63 00-0094	EA	13" x 24", 18" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	386.89	69.88
33 05 63 00-0095	EA	17" x 30", 18" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	461.80	69.88
33 05 63 00-0096	EA	13" x 24", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	428.27	69.88
33 05 63 00-0097	EA	13" x 24", 26" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	485.64	69.88
33 05 63 00-0098	EA	17" x 30", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	500.68	69.88
33 05 63 00-0099	EA	17" x 30", 26" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	637.45	69.88
33 05 63 00-0100	EA	24" x 36", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	863.56	128.11
33 05 63 00-0101	EA	24" x 36", 26" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	955.16	128.11
33 05 63 00-0102	EA	24" x 36", 48" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,431.71	128.11
33 05 63 00-0103	EA	30" x 48", 24" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,261.17	202.76
33 05 63 00-0104	EA	30" x 48", 48" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	1,716.20	202.76
33 05 63 00-0105		Straight Sides, Polymer Concrete Handhole Enclosures (33 05 63 00-0070)		
33 05 63 00-0106		Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosures (33 05 63 00-0105)		
33 05 63 00-0107	EA	5" x 16", 12" Depth, 5,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	364.84	20.98

33 Utilities**33 05 Common Work Results For Utilities****33 05 63 Concrete Vaults and Chambers**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0108	EA	10" x 12", 15" Depth, 5,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	309.81	20.98
33 05 63 00-0109	EA	13" x 24", 12" Depth, 5,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	273.86	69.88
33 05 63 00-0110	EA	17" x 30", 12" Depth, 5,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	306.33	69.88
33 05 63 00-0111	EA	6" x 8", 6" Depth, 15,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	92.43	20.98
33 05 63 00-0112	EA	12" x 12", 12" Depth, 15,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	138.45	20.98
33 05 63 00-0113	EA	8" x 18", 7" Depth, 15,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	218.32	20.98
33 05 63 00-0114	EA	8" x 18", 8" Depth, 15,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	227.99	20.98
33 05 63 00-0115	EA	11" x 18", 12" Depth, 15,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	202.92	46.59
33 05 63 00-0116	EA	11" x 18", 18" Depth, 15,000 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	217.75	46.59
33 05 63 00-0117	EA	8" x 8", 12" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	136.47	20.98
33 05 63 00-0118	EA	8" x 8", 18" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	154.58	20.98
33 05 63 00-0119	EA	11" x 18", 12" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	216.21	46.59
33 05 63 00-0120	EA	11" x 18", 18" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	241.13	46.59
33 05 63 00-0121	EA	11" x 20", 12" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	225.00	46.59
33 05 63 00-0122	EA	13" x 24", 12" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	275.37	69.88
33 05 63 00-0123	EA	13" x 24", 18" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	299.82	69.88
33 05 63 00-0124	EA	17" x 30", 12" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	318.00	69.88
33 05 63 00-0125	EA	17" x 30", 18" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	345.39	69.88
33 05 63 00-0126	EA	17" x 30", 22" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	400.00	69.88
33 05 63 00-0127	EA	17" x 30", 24" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	433.12	69.88
33 05 63 00-0128	EA	17" x 30", 28" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	469.37	69.88
33 05 63 00-0129	EA	17" x 30", 30" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	492.17	69.88
33 05 63 00-0130	EA	24" x 24", 24" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	590.66	93.17
33 05 63 00-0131	EA	24" x 36", 18" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	610.34	128.11
33 05 63 00-0132	EA	24" x 36", 24" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	769.10	128.11
33 05 63 00-0133	EA	24" x 36", 30" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	915.69	128.11
33 05 63 00-0134	EA	24" x 36", 36" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,008.26	128.11
33 05 63 00-0135	EA	24" x 36", 42" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,100.34	128.11
33 05 63 00-0136	EA	36" x 36", 36" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,257.41	202.76
33 05 63 00-0137	EA	30" x 48", 18" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	932.87	202.76
33 05 63 00-0138	EA	30" x 48", 24" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,050.45	202.76
33 05 63 00-0139	EA	30" x 48", 36" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,275.28	202.76
33 05 63 00-0140	EA	30" x 60", 21" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,272.97	202.76
33 05 63 00-0141	EA	30" x 60", 30" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,356.90	202.76
33 05 63 00-0142	EA	30" x 60", 36" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,518.30	202.76
33 05 63 00-0143	EA	36" x 60", 19" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,406.23	217.24
33 05 63 00-0144	EA	36" x 60", 24" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,520.19	217.24
33 05 63 00-0145	EA	36" x 60", 31" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,665.68	217.24
33 05 63 00-0146	EA	36" x 60", 36" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,723.89	217.24
33 05 63 00-0147	EA	48" x 48", 36" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,744.12	217.24
33 05 63 00-0148	EA	48" x 48", 48" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,965.80	217.24
33 05 63 00-0149	EA	36" x 72", 21" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,535.29	217.24
33 05 63 00-0150	EA	36" x 72", 36" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,002.39	217.24
33 05 63 00-0151	EA	48" x 72", 36" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,249.80	231.73



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0152 EA 48" x 72", 48" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,758.01	231.73
33 05 63 00-0153 EA 48" x 96", 48" Depth, 22,500 LB Design Load, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	3,515.41	231.73
33 05 63 00-0154 Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosures <small>(33 05 63 00-0105)</small>		
33 05 63 00-0155 EA 13" x 24", 12" Depth, 5,000 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	358.16	69.88
33 05 63 00-0156 EA 17" x 30", 12" Depth, 5,000 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	406.33	69.88
33 05 63 00-0157 EA 6" x 8", 6" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	150.16	20.98
33 05 63 00-0158 EA 12" x 12", 12" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	213.06	20.98
33 05 63 00-0159 EA 8" x 18", 7" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	282.58	20.98
33 05 63 00-0160 EA 8" x 18", 8" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	292.26	20.98
33 05 63 00-0161 EA 10" x 15", 18" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Flared Sides, Polymer Concrete Handhole Enclosure.....	266.22	46.59
33 05 63 00-0162 EA 11" x 18", 12" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	276.54	46.59
33 05 63 00-0163 EA 11" x 18", 18" Depth, 15,000 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	290.34	46.59
33 05 63 00-0164 EA 8" x 8", 12" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	199.42	20.98
33 05 63 00-0165 EA 8" x 8", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	234.05	20.98
33 05 63 00-0166 EA 11" x 18", 12" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	290.00	46.59
33 05 63 00-0167 EA 11" x 18", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	314.93	46.59
33 05 63 00-0168 EA 11" x 20", 12" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	299.58	46.59
33 05 63 00-0169 EA 13" x 24", 12" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	357.70	69.88
33 05 63 00-0170 EA 13" x 24", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	382.45	69.88
33 05 63 00-0171 EA 17" x 30", 12" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	416.25	69.88
33 05 63 00-0172 EA 17" x 30", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	443.46	69.88
33 05 63 00-0173 EA 17" x 30", 22" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	497.91	69.88
33 05 63 00-0174 EA 17" x 30", 24" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	531.18	69.88
33 05 63 00-0175 EA 17" x 30", 28" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	567.27	69.88
33 05 63 00-0176 EA 17" x 30", 30" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	590.22	69.88
33 05 63 00-0177 EA 24" x 24", 24" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	726.11	93.17
33 05 63 00-0178 EA 24" x 36", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	764.34	128.11
33 05 63 00-0179 EA 24" x 36", 24" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	922.91	128.11
33 05 63 00-0180 EA 24" x 36", 30" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,069.34	128.11
33 05 63 00-0181 EA 24" x 36", 36" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,161.77	128.11
33 05 63 00-0182 EA 24" x 36", 42" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,254.16	128.11
33 05 63 00-0183 EA 30" x 48", 18" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,111.12	202.76
33 05 63 00-0184 EA 30" x 48", 24" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,228.87	202.76
33 05 63 00-0185 EA 30" x 48", 36" Depth, 22,500 LB Design Load, Gasketed, Open Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,453.53	202.76
33 05 63 00-0186 Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosures <small>(33 05 63 00-0105)</small>		
33 05 63 00-0187 EA 13" x 24", 12" Depth, 5,000 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	331.25	69.88
33 05 63 00-0188 EA 17" x 30", 12" Depth, 5,000 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	380.75	69.88
33 05 63 00-0189 EA 6" x 8", 6" Depth, 15,000 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	113.36	20.98
33 05 63 00-0190 EA 12" x 12", 12" Depth, 15,000 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	180.75	20.98
33 05 63 00-0191 EA 8" x 18", 7" Depth, 15,000 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	255.69	20.98
33 05 63 00-0192 EA 8" x 18", 8" Depth, 15,000 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	265.55	20.98
33 05 63 00-0193 EA 11" x 18", 12" Depth, 15,000 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	248.52	46.59

33 Utilities**33 05 Common Work Results For Utilities****33 05 63 Concrete Vaults and Chambers**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0194 EA 11" x 18", 18" Depth, 15,000 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	277.21	46.59
33 05 63 00-0195 EA 8" x 8", 18" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	159.29	20.98
33 05 63 00-0196 EA 11" x 18", 12" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	262.62	46.59
33 05 63 00-0197 EA 11" x 18", 18" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	298.36	46.59
33 05 63 00-0198 EA 11" x 20", 12" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	271.91	46.59
33 05 63 00-0199 EA 13" x 24", 12" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	353.91	69.88
33 05 63 00-0200 EA 13" x 24", 18" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	402.77	69.88
33 05 63 00-0201 EA 17" x 30", 12" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	419.02	69.88
33 05 63 00-0202 EA 17" x 30", 18" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	457.72	69.88
33 05 63 00-0203 EA 17" x 30", 22" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	493.31	69.88
33 05 63 00-0204 EA 17" x 30", 24" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	526.92	69.88
33 05 63 00-0205 EA 17" x 30", 28" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	587.10	69.88
33 05 63 00-0206 EA 17" x 30", 30" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	595.48	69.88
33 05 63 00-0207 EA 24" x 24", 24" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	736.61	93.17
33 05 63 00-0208 EA 24" x 36", 18" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	777.95	128.11
33 05 63 00-0209 EA 24" x 36", 24" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	953.07	128.11
33 05 63 00-0210 EA 24" x 36", 30" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,126.26	128.11
33 05 63 00-0211 EA 24" x 36", 36" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,241.29	128.11
33 05 63 00-0212 EA 24" x 36", 42" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,356.33	128.11
33 05 63 00-0213 EA 36" x 36", 36" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,471.73	202.76
33 05 63 00-0214 EA 30" x 48", 18" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,147.21	202.76
33 05 63 00-0215 EA 30" x 48", 24" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,273.96	202.76
33 05 63 00-0216 EA 30" x 48", 36" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,498.64	202.76
33 05 63 00-0217 EA 30" x 60", 21" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,597.74	202.76
33 05 63 00-0218 EA 30" x 60", 30" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,628.77	202.76
33 05 63 00-0219 EA 30" x 60", 36" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,929.83	202.76
33 05 63 00-0220 EA 36" x 60", 19" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,800.20	217.24
33 05 63 00-0221 EA 36" x 60", 24" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,859.09	217.24
33 05 63 00-0222 EA 36" x 60", 31" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,026.11	217.24
33 05 63 00-0223 EA 36" x 60", 36" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,152.53	217.24
33 05 63 00-0224 EA 36" x 72", 21" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	1,983.55	217.24
33 05 63 00-0225 EA 36" x 72", 36" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,435.66	217.24
33 05 63 00-0226 EA 48" x 48", 36" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,124.31	217.24
33 05 63 00-0227 EA 48" x 48", 48" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,327.17	217.24
33 05 63 00-0228 EA 48" x 72", 36" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	2,807.78	231.73
33 05 63 00-0229 EA 48" x 72", 48" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	3,316.20	231.73
33 05 63 00-0230 EA 48" x 96", 48" Depth, 22,500 LB Design Load, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	4,444.47	231.73
33 05 63 00-0231 Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosures <small>(33 05 63 00-0105)</small>		
33 05 63 00-0232 EA 13" x 24", 12" Depth, 5,000 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	415.54	69.88
33 05 63 00-0233 EA 17" x 30", 12" Depth, 5,000 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	480.95	69.88
33 05 63 00-0234 EA 6" x 8", 6" Depth, 15,000 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	170.63	20.98



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0235 EA 12" x 12", 12" Depth, 15,000 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	255.21	20.98
33 05 63 00-0236 EA 8" x 18", 7" Depth, 15,000 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	319.82	20.98
33 05 63 00-0237 EA 8" x 18", 8" Depth, 15,000 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	329.81	20.98
33 05 63 00-0238 EA 11" x 18", 12" Depth, 15,000 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	322.31	46.59
33 05 63 00-0239 EA 11" x 18", 18" Depth, 15,000 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	350.83	46.59
33 05 63 00-0240 EA 8" x 8", 18" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure.....	241.13	20.98
33 05 63 00-0241 EA 11" x 18", 12" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	336.08	46.59
33 05 63 00-0242 EA 11" x 18", 18" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	371.82	46.59
33 05 63 00-0243 EA 11" x 20", 12" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	325.42	46.59
33 05 63 00-0244 EA 13" x 24", 12" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	436.57	69.88
33 05 63 00-0245 EA 13" x 24", 18" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	485.44	69.88
33 05 63 00-0246 EA 17" x 30", 12" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	517.08	69.88
33 05 63 00-0247 EA 17" x 30", 18" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	555.79	69.88
33 05 63 00-0248 EA 17" x 30", 22" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	591.37	69.88
33 05 63 00-0249 EA 17" x 30", 24" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	624.99	69.88
33 05 63 00-0250 EA 17" x 30", 28" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	685.18	69.88
33 05 63 00-0251 EA 17" x 30", 30" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	693.54	69.88
33 05 63 00-0252 EA 24" x 24", 24" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	871.89	93.17
33 05 63 00-0253 EA 24" x 36", 18" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	931.94	128.11
33 05 63 00-0254 EA 24" x 36", 24" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,106.90	128.11
33 05 63 00-0255 EA 24" x 36", 30" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,279.90	128.11
33 05 63 00-0256 EA 24" x 36", 36" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,395.02	128.11
33 05 63 00-0257 EA 24" x 36", 42" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,510.14	128.11
33 05 63 00-0258 EA 30" x 48", 18" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,325.62	202.76
33 05 63 00-0259 EA 30" x 48", 24" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,452.54	202.76
33 05 63 00-0260 EA 30" x 48", 36" Depth, 22,500 LB Design Load, Gasketed, Solid Bottom, Straight Sides, Polymer Concrete Handhole Enclosure	1,677.06	202.76
33 05 63 00-0261 Footed, Straight Sides, Polymer Concrete Handhole Enclosures (33 05 63 00-0105)		
33 05 63 00-0262 EA 17" x 30", 12" Depth, 5,000 LB Design Load, Footed, Straight Sides, Polymer Concrete Handhole Enclosure	351.80	69.88
33 05 63 00-0263 EA 11" x 18", 12" Depth, 15,000 LB Design Load, Footed, Straight Sides, Polymer Concrete Handhole Enclosure.....	237.36	46.59
33 05 63 00-0264 EA 11" x 18", 18" Depth, 15,000 LB Design Load, Footed, Straight Sides, Polymer Concrete Handhole Enclosure.....	264.91	46.59
33 05 63 00-0265 EA 13" x 24", 12" Depth, 15,000 LB Design Load, Footed, Straight Sides, Polymer Concrete Handhole Enclosure.....	316.03	69.88
33 05 63 00-0266 EA 11" x 18", 12" Depth, 22,500 LB Design Load, Footed, Straight Sides, Polymer Concrete Handhole Enclosure.....	246.38	46.59
33 05 63 00-0267 EA 11" x 18", 18" Depth, 22,500 LB Design Load, Footed, Straight Sides, Polymer Concrete Handhole Enclosure.....	272.78	46.59
33 05 63 00-0268 Polymer Concrete Handhole Enclosure Extensions (33 05 63 00-0069)		
33 05 63 00-0269 EA 13" x 24", 8" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension	264.72	69.88
33 05 63 00-0270 EA 17" x 30", 8" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension	293.44	69.88
33 05 63 00-0271 EA 24" x 24", 6" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension	342.07	93.17
33 05 63 00-0272 EA 24" x 24", 12" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension	370.27	93.17
33 05 63 00-0273 EA 24" x 36", 8" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension	445.90	128.11
33 05 63 00-0274 EA 36" x 36", 12" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension	765.60	202.76
33 05 63 00-0275 EA 30" x 48", 8" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension	734.77	202.76
33 05 63 00-0276 EA 30" x 48", 11" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension	741.50	202.76
33 05 63 00-0277 EA 36" x 60", 12" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension	980.29	217.24
33 05 63 00-0278 EA 48" x 72", 12" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension	1,515.86	231.73

33 Utilities**33 05 Common Work Results For Utilities****33 05 63 Concrete Vaults and Chambers**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0279 EA 48" x 96", 12" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Extension	1,963.70	231.73
33 05 63 00-0280 EA 13" x 24", 8" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Solid Base Extension	415.42	69.88
33 05 63 00-0281 EA 17" x 30", 8" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Solid Base Extension	432.96	69.88
33 05 63 00-0282 EA 24" x 24", 6" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Solid Base Extension	470.63	93.17
33 05 63 00-0283 EA 24" x 24", 12" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Solid Base Extension	499.13	93.17
33 05 63 00-0284 EA 24" x 36", 8" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Solid Base Extension	586.90	128.11
33 05 63 00-0285 EA 30" x 48", 8" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Solid Base Extension	934.02	202.76
33 05 63 00-0286 EA 13" x 24", 3" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Grade Adjustable Extension	329.65	69.88
33 05 63 00-0287 EA 17" x 30", 3" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Grade Adjustable Extension	364.25	69.88
33 05 63 00-0288 EA 24" x 36", 4" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Grade Adjustable Extension	495.55	128.11
33 05 63 00-0289 EA 36" x 60", 3" Extension, 22,500 LB Design Load, Straight Sides, Polymer Concrete Handhole Enclosure Grade Adjustable Extension	947.28	217.24

33 05 63 00-0290 Polymer Concrete Handhole Enclosure Covers (33 05 63 00-0069)**33 05 63 00-0291 Polymer Concrete Handhole Enclosure Covers (33 05 63 00-0290)**

33 05 63 00-0292 EA 5" x 16", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	87.98	9.33
33 05 63 00-0293 EA 10" x 12", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	89.09	9.33
33 05 63 00-0294 EA 12" x 12", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	82.77	9.33
33 05 63 00-0295 EA 8" x 18", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	89.31	9.33
33 05 63 00-0296 EA 11" x 18", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	90.14	9.32
33 05 63 00-0297 EA 13" x 24", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	103.02	9.32
33 05 63 00-0298 EA 17" x 30", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	118.95	9.32
33 05 63 00-0299 EA 30" x 59", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	768.48	26.07
33 05 63 00-0300 EA 30" x 60", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	673.49	26.07
33 05 63 00-0301 EA 36" x 60", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	1,004.35	26.07
33 05 63 00-0302 EA 48" x 48", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	1,015.63	26.07
33 05 63 00-0303 EA 36" x 72", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	1,149.50	26.07
33 05 63 00-0304 EA 48" x 72", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	1,251.75	26.07
33 05 63 00-0305 EA 48" x 96", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	2,006.72	26.07
33 05 63 00-0306 EA 10" x 15", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	75.74	9.32
33 05 63 00-0307 EA 11" x 18", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	107.35	9.32
33 05 63 00-0308 EA 11" x 20", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	108.82	9.32
33 05 63 00-0309 EA 13" x 24", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	136.22	9.32
33 05 63 00-0310 EA 13" x 24", 8,000 LB Design Load, Standard Duty, Service Box, Polymer Concrete Handhole Enclosure Cover	103.43	9.32
33 05 63 00-0311 EA 17" x 30", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	160.65	9.32
33 05 63 00-0312 EA 17" x 30", 8,000 LB Design Load, Standard Duty, Service Box, Polymer Concrete Handhole Enclosure Cover	126.71	9.32
33 05 63 00-0313 EA 27" Round, 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	257.21	9.32
33 05 63 00-0314 EA 24" x 24", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	227.05	13.97
33 05 63 00-0315 EA 24" x 36", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	283.53	13.97
33 05 63 00-0316 EA 39" Round, 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	364.94	16.31
33 05 63 00-0317 EA 36" x 36", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	510.49	20.27
33 05 63 00-0318 EA 30" x 48", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover	531.06	38.62
33 05 63 00-0319 EA 11" x 18", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	137.86	9.32
33 05 63 00-0320 EA 13" x 24", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	195.42	9.32
33 05 63 00-0321 EA 17" x 30", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	221.99	9.32
33 05 63 00-0322 EA 27" Round, 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	367.34	9.32
33 05 63 00-0323 EA 24" x 24", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	304.70	13.97
33 05 63 00-0324 EA 39" Round, 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	512.84	16.31
33 05 63 00-0325 EA 36" x 36", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	670.70	20.27
33 05 63 00-0326 EA 30" x 59", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	904.66	26.07
33 05 63 00-0327 EA 30" x 60", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	805.14	26.07
33 05 63 00-0328 EA 36" x 60", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	1,121.62	26.07
33 05 63 00-0329 EA 48" x 48", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	1,458.20	26.07
33 05 63 00-0330 EA 36" x 72", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	1,396.80	26.07
33 05 63 00-0331 EA 48" x 72", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	2,116.33	26.07
33 05 63 00-0332 EA 48" x 96", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover	3,264.78	26.07
33 05 63 00-0333 EA 11" x 18", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	180.51	9.32
33 05 63 00-0334 EA 11" x 20", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	197.14	9.32
33 05 63 00-0335 EA 13" x 24", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	258.72	9.32
33 05 63 00-0336 EA 17" x 30", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	294.46	9.32
33 05 63 00-0337 EA 27" Round, 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	507.02	9.32
33 05 63 00-0338 EA 24" x 24", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	370.51	13.97
33 05 63 00-0339 EA 24" x 36", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	505.08	13.97
33 05 63 00-0340 EA 39" Round, 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	781.56	16.31
33 05 63 00-0341 EA 36" x 36", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	893.72	20.27
33 05 63 00-0342 EA 30" x 48", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	930.37	38.62
33 05 63 00-0343 EA 30" x 60", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	1,076.01	26.07
33 05 63 00-0344 EA 36" x 60", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	1,499.15	26.07
33 05 63 00-0345 EA 48" x 48", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	2,094.31	26.07
33 05 63 00-0346 EA 36" x 72", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	1,869.70	26.07



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0347 EA 48" x 72", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	3,093.45	26.07
33 05 63 00-0348 EA 48" x 96", 22,500 LB Design Load, Extra Heavy Duty, Polymer Concrete Handhole Enclosure Cover	4,770.61	26.07
33 05 63 00-0349 Polymer Concrete Handhole Enclosure Covers With Gaskets <small>(33 05 63 00-0290)</small>		
33 05 63 00-0350 EA 12" x 12", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	100.64	9.33
33 05 63 00-0351 EA 8" x 18", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	106.21	9.33
33 05 63 00-0352 EA 11" x 18", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	108.02	9.32
33 05 63 00-0353 EA 13" x 24", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	108.70	9.32
33 05 63 00-0354 EA 17" x 30", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	125.03	9.32
33 05 63 00-0355 EA 10" x 15", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	80.87	9.32
33 05 63 00-0356 EA 11" x 18", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	112.61	9.32
33 05 63 00-0357 EA 11" x 20", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	113.63	9.32
33 05 63 00-0358 EA 13" x 24", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	141.64	9.32
33 05 63 00-0359 EA 13" x 24", 8,000 LB Design Load, Standard Duty, Service Box, Polymer Concrete Handhole Enclosure Cover With Gasket	109.33	9.32
33 05 63 00-0360 EA 17" x 30", 8,000 LB Design Load, Standard Duty, Service Box, Polymer Concrete Handhole Enclosure Cover With Gasket	132.95	9.32
33 05 63 00-0361 EA 17" x 30", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	166.39	9.32
33 05 63 00-0362 EA 24" x 24", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	230.90	13.97
33 05 63 00-0363 EA 24" x 36", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	289.45	13.97
33 05 63 00-0364 EA 30" x 48", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	537.14	38.62
33 05 63 00-0365 EA 6" x 8", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	67.82	9.33
33 05 63 00-0366 EA 8" x 8", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	104.47	9.33
33 05 63 00-0367 EA 8" x 18", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	115.89	9.33
33 05 63 00-0368 EA 12" x 12", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	110.82	9.33
33 05 63 00-0369 EA 10" x 15", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	91.78	9.32
33 05 63 00-0370 EA 11" x 18", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	143.11	9.32
33 05 63 00-0371 EA 11" x 20", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	154.97	9.32
33 05 63 00-0372 EA 13" x 24", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	201.00	9.32
33 05 63 00-0373 EA 17" x 30", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	228.05	9.32
33 05 63 00-0374 EA 24" x 24", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	310.12	13.97
33 05 63 00-0375 EA 24" x 36", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	386.18	13.97
33 05 63 00-0376 EA 30" x 48", 15,000 LB Design Load, Heavy Duty, Polymer Concrete Handhole Enclosure Cover With Gasket.....	705.21	38.62
33 05 63 00-0377 Polymer Concrete Handhole Enclosure Covers Without Bolts <small>(33 05 63 00-0290)</small>		
33 05 63 00-0378 EA 6" x 9", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	55.22	9.33
33 05 63 00-0379 EA 7" x 13", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	65.08	9.33
33 05 63 00-0380 EA 12" x 12", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	78.35	9.33
33 05 63 00-0381 EA 8" x 18", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	84.25	9.33
33 05 63 00-0382 EA 11" x 18", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	84.08	9.32
33 05 63 00-0383 EA 13" x 24", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	99.20	9.32
33 05 63 00-0384 EA 17" x 30", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	114.05	9.32
33 05 63 00-0385 EA 24" x 36", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	273.85	13.97
33 05 63 00-0386 EA 30" x 48", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	508.94	38.62
33 05 63 00-0387 EA 30" x 59", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	760.18	26.07
33 05 63 00-0388 EA 30" x 60", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	664.12	26.07
33 05 63 00-0389 EA 48" x 48", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	988.92	26.07
33 05 63 00-0390 EA 36" x 60", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	954.58	26.07
33 05 63 00-0391 EA 36" x 72", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	1,140.54	26.07
33 05 63 00-0392 EA 48" x 72", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	1,218.67	26.07
33 05 63 00-0393 EA 48" x 96", 5,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	1,943.14	26.07
33 05 63 00-0394 EA 10" x 15", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	72.93	9.32
33 05 63 00-0395 EA 10" x 16", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	71.29	9.32
33 05 63 00-0396 EA 11" x 20", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	103.80	9.32
33 05 63 00-0397 EA 11" x 21", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	113.76	9.32
33 05 63 00-0398 EA 13" x 24", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	128.35	9.32
33 05 63 00-0399 EA 13" x 24", 8,000 LB Design Load, Standard Duty, Service Box, Polymer Concrete Handhole Enclosure Cover Without Bolts.....	98.34	9.32
33 05 63 00-0400 EA 18" x 19", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	109.33	9.32
33 05 63 00-0401 EA 17" x 30", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	153.76	9.32
33 05 63 00-0402 EA 24" x 24", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	222.58	13.97
33 05 63 00-0403 EA 20" x 42", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	276.92	13.97
33 05 63 00-0404 EA 24" x 36", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	273.69	13.97
33 05 63 00-0405 EA 36" x 36", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	490.32	20.27
33 05 63 00-0406 EA 30" x 48", 8,000 LB Design Load, Standard Duty, Polymer Concrete Handhole Enclosure Cover Without Bolts	508.94	23.17
33 05 63 00-0407 Overlapping, Polymer Concrete Handhole Enclosure Covers <small>(33 05 63 00-0290)</small>		
33 05 63 00-0408 EA 30" x 60", 5,000 LB Design Load, Standard Duty, Overlapping, Polymer Concrete Handhole Enclosure Cover.....	791.13	26.07
33 05 63 00-0409 EA 36" x 60", 5,000 LB Design Load, Standard Duty, Overlapping, Polymer Concrete Handhole Enclosure Cover.....	1,141.69	26.07
33 05 63 00-0410 EA 30" x 48", 8,000 LB Design Load, Standard Duty, Overlapping, Polymer Concrete Handhole Enclosure Cover.....	664.21	38.62
33 05 63 00-0411 EA 30" x 48", 15,000 LB Design Load, Heavy Duty, Overlapping, Polymer Concrete Handhole Enclosure Cover	878.21	38.62
33 05 63 00-0412 EA 30" x 60", 15,000 LB Design Load, Heavy Duty, Overlapping, Polymer Concrete Handhole Enclosure Cover	938.33	26.07
33 05 63 00-0413 EA 36" x 60", 15,000 LB Design Load, Heavy Duty, Overlapping, Polymer Concrete Handhole Enclosure Cover	1,275.72	26.07
33 05 63 00-0414 Split, Polymer Concrete Handhole Enclosure Covers <small>(33 05 63 00-0290)</small>		
33 05 63 00-0415 EA 24" x 36", 8,000 LB Design Load, Standard Duty, Split, Polymer Concrete Handhole Enclosure Cover	310.22	13.97
33 05 63 00-0416 EA 36" x 36", 8,000 LB Design Load, Standard Duty, Split, Polymer Concrete Handhole Enclosure Cover	573.63	20.27

33 Utilities**33 05 Common Work Results For Utilities****33 05 63 Concrete Vaults and Chambers**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 63 00-0417 EA 30" x 48", 8,000 LB Design Load, Standard Duty, Split, Polymer Concrete Handhole Enclosure Cover	600.44	38.62
33 05 63 00-0418 EA 6" x 8", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	52.47	9.33
33 05 63 00-0419 EA 8" x 8", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	84.77	9.33
33 05 63 00-0420 EA 12" x 12", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	92.94	9.33
33 05 63 00-0421 EA 8" x 18", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	98.35	9.33
33 05 63 00-0422 EA 10" x 15", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	86.70	9.32
33 05 63 00-0423 EA 11" x 20", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	150.16	9.32
33 05 63 00-0424 EA 24" x 36", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	413.97	13.97
33 05 63 00-0425 EA 36" x 36", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	760.75	20.27
33 05 63 00-0426 EA 30" x 48", 15,000 LB Design Load, Heavy Duty, Split, Polymer Concrete Handhole Enclosure Cover	797.88	38.62
33 05 63 00-0427 Precast Concrete Handholes With Steel Cover <small>(33 05 63 00-0068)</small>		
Note: 8000 To 12000 pound traffic rated top. Includes cover stamped with utility (Electrical, Sewer, Water, Etc.).		
33 05 63 00-0428 EA 12" x 12" x 12" Precast Concrete Handholes With Steel Cover	615.61	193.67
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add	18.00	
33 05 63 00-0429 EA 12" x 24" x 21" Precast Concrete Handholes With Steel Cover	1,016.47	290.50
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add	92.43	
33 05 63 00-0430 EA 18" x 30" x 18" Precast Concrete Handholes With Steel Cover	1,250.47	387.34
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add	158.25	
33 05 63 00-0431 EA 24" x 24" x 24" Precast Concrete Handholes With Steel Cover	1,291.09	387.34
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add	197.86	
33 05 63 00-0432 EA 24" x 24" x 30" Precast Concrete Handholes With Steel Cover	1,532.80	484.16
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add	236.44	
33 05 63 00-0433 EA 30" x 36" x 30" Precast Concrete Handholes With Steel Cover	1,600.64	484.16
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add	264.83	
33 05 63 00-0434 EA 36" x 36" x 48" Precast Concrete Handholes With Steel Cover	1,860.77	581.00
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add	307.79	
33 05 63 00-0435 EA 48" x 48" x 48" Precast Concrete Handholes With Steel Cover	2,142.04	677.83
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add	444.15	
33 05 63 00-0436 EA 48" x 72" x 36" Precast Concrete Handholes With Steel Cover	2,061.05	581.00
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add	497.11	
33 05 63 00-0437 EA 54" x 38" x 24" Precast Concrete Handholes With Steel Cover	2,078.27	581.00
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add	326.91	
33 05 63 00-0438 EA 6" Diameter Precast Concrete Handholes With Steel Cover	505.38	193.67
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add	15.00	
33 05 63 00-0439 EA 9" Diameter Precast Concrete Handholes With Steel Cover	590.09	217.87
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add	15.00	
33 05 63 00-0440 EA 12" Diameter Precast Concrete Handholes With Steel Cover	711.05	242.09
Note: 8000 To 12000 pound traffic rated top.		
For 15,000 to 22,500 Pound Traffic Rated Top, Add	15.00	
33 05 81 Metallic Castings for Utility Structures <small>(33 05)</small>		
33 05 81 00-0001 Manhole Accessories <small>(33 05 81)</small>		
33 05 81 00-0002 Steps For Cast-In-Place Manholes <small>(33 05 81 00-0001)</small>		
See CSI section 33 01 30 81-0037 for installation of steps in existing manholes.		
33 05 81 00-0003 EA Cast Iron Manhole Step For New Manholes	68.21	
33 05 81 00-0004 EA Galvanized Steel Manhole Step For New Manholes	44.61	
33 05 81 00-0005 EA Aluminum Manhole Step For New Manholes	62.90	
33 05 81 00-0006 Manhole Covers And Frames <small>(33 05 81)</small>		
Note: Includes moisture-tight masonry joints and waterproof grouting.		
33 05 81 00-0007 Regular Manhole Covers And Frames <small>(33 05 81 00-0006)</small>		
33 05 81 00-0008 EA 18" Square, Gray Iron, Manhole Cover With Frame	1,039.22	77.79
For Ductile Iron Castings, Add	562.84	
33 05 81 00-0009 EA 18" Diameter, Gray Iron, Manhole Cover With Frame	625.46	77.79
For Ductile Iron Castings, Add	273.20	
33 05 81 00-0010 EA 24" Diameter, Gray Iron, Manhole Cover With Frame	722.61	90.45
For Ductile Iron Castings, Add	315.88	
33 05 81 00-0011 EA 24" Square, Gray Iron, Manhole Cover With Frame	1,085.56	100.40
For Ductile Iron Castings, Add	548.84	
33 05 81 00-0012 EA 26" Diameter, Gray Iron, Manhole Cover With Frame	948.92	108.54
For Ductile Iron Castings, Add	435.40	
33 05 81 00-0013 EA 30" Diameter, Gray Iron, Manhole Cover With Frame	989.22	113.06
For Ductile Iron Castings, Add	455.03	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 81 00-0014 Watertight Type Manhole Covers And Frames <small>(33 05 81 00-0006)</small>		
33 05 81 00-0015 EA 20" Diameter, Gray Iron, Watertight Manhole Cover With Frame <i>For Ductile Iron Castings, Add</i>	1,143.51 621.52	64.22
33 05 81 00-0016 EA 22" Diameter, Gray Iron, Watertight Manhole Cover With Frame <i>For Ductile Iron Castings, Add</i>	1,167.47 623.55	64.22
33 05 81 00-0017 EA 24" Diameter, Gray Iron, Watertight Manhole Cover With Frame <i>For Ductile Iron Castings, Add</i>	1,198.17 627.66	75.07
33 05 81 00-0018 EA 26" Diameter, Gray Iron, Watertight Manhole Cover With Frame <i>For Ductile Iron Castings, Add</i>	1,414.26 761.14	84.12
33 05 81 00-0019 EA 30" Diameter, Gray Iron, Watertight Manhole Cover With Frame <i>For Ductile Iron Castings, Add</i>	1,622.81 898.54	85.93
33 05 81 00-0020 EA 32" Diameter, Gray Iron, Watertight Manhole Cover With Frame <i>For Ductile Iron Castings, Add</i>	1,702.81 951.43	87.74
33 05 81 00-0021 EA 36" Diameter, Gray Iron, Watertight Manhole Cover With Frame <i>For Ductile Iron Castings, Add</i>	1,774.73 998.54	90.45
33 05 81 00-0022 Aluminum Manhole Covers And Frames <small>(33 05 81 00-0006)</small>		
33 05 81 00-0023 EA 12" Square Aluminum Manhole Cover With Frame.....	749.24	25.67
33 05 81 00-0024 EA 18" Square Aluminum Manhole Cover With Frame.....	1,358.27	28.42
33 05 81 00-0025 EA 24" Square Aluminum Manhole Cover With Frame.....	1,942.52	32.99
33 05 81 00-0026 Remove And Reinstall Manhole Cover And Frame <small>(33 05 81 00-0006)</small>		
Note: Includes surrounding asphalt removal and repair. Excludes saw cutting.		
33 05 81 00-0027 EA Removal And Reinstallation Of Manhole Cover And Frame.....	362.66	
33 05 83 Non-Metallic Accessories for Utility Structures <small>(33 05)</small>		
33 05 83 00-0001 Manhole Accessories <small>(33 05 83)</small>		
33 05 83 00-0002 Steps For Cast-In-Place Manholes <small>(33 05 83 00-0001)</small>		
See CSI section 33 01 30 81-0037 for installation of steps in existing manholes.		
33 05 83 00-0003 EA Polypropylene Manhole Step For New Manholes.....	49.82	
33 05 83 00-0004 Rainguard Inflow Protectors <small>(33 05 83)</small>		
33 05 83 00-0005 EA 18" Diameter Acrylonitrile Butadiene Styrene (ABS) Rainguard Inflow Protectors.....	134.08	19.77
33 05 83 00-0006 EA 22" Diameter Acrylonitrile Butadiene Styrene (ABS) Rainguard Inflow Protectors.....	161.04	19.77
33 05 83 00-0007 EA 24" Diameter Acrylonitrile Butadiene Styrene (ABS) Rainguard Inflow Protectors.....	192.38	23.73
33 05 83 00-0008 EA 26" Diameter Acrylonitrile Butadiene Styrene (ABS) Rainguard Inflow Protectors.....	209.42	23.73
33 05 83 00-0009 EA 30" Diameter Acrylonitrile Butadiene Styrene (ABS) Rainguard Inflow Protectors.....	263.18	27.68
33 05 83 00-0010 EA 32" Diameter Acrylonitrile Butadiene Styrene (ABS) Rainguard Inflow Protectors.....	284.10	27.68
33 05 84 Accessories for Utility Structures <small>(33 05)</small>		
See CSI section 22 13 19 26-0044 for oil interceptors, 22 13 23 00-0000 for sediment interceptors, 31 23 16 00-0000 for excavation, 31 23 16 36-0016 for backfill.		
33 05 84 00-0001 Manhole Accessories <small>(33 05 84)</small>		
33 05 84 00-0002 Precast Concrete Manhole Tops <small>(33 05 84 00-0001)</small>		
33 05 84 00-0003 Precast Concrete Manhole Slab Tops <small>(33 05 84 00-0002)</small>		
33 05 84 00-0004 EA 3' Diameter x 8" Thick Precast Manhole Top Slab.....	422.80	67.84
33 05 84 00-0005 EA 4' Diameter x 8" Thick Precast Manhole Top Slab.....	563.08	73.27
33 05 84 00-0006 EA 5' Diameter x 8" Thick Precast Manhole Top Slab.....	734.11	78.69
33 05 84 00-0007 EA 6' Diameter x 8" Thick Precast Manhole Top Slab.....	866.00	84.12
33 05 84 00-0008 Precast Concrete Manhole Cone Tops <small>(33 05 84 00-0002)</small>		
33 05 84 00-0009 EA 3' Diameter x 8" Thick Precast Manhole Top Cone.....	642.06	84.80
33 05 84 00-0010 EA 3'-6" Diameter x 8" Thick Precast Manhole Top Cone.....	706.11	88.19
33 05 84 00-0011 EA 4' Diameter x 8" Thick Precast Manhole Top Cone.....	770.18	91.58
33 05 84 00-0012 EA 5' Diameter x 8" Thick Precast Manhole Top Cone.....	893.73	97.24
33 05 84 00-0013 EA 6' Diameter x 8" Thick Precast Manhole Top Cone.....	1,021.83	104.02
33 05 84 00-0014 EA 7' Diameter x 8" Thick Precast Manhole Top Cone.....	1,547.94	110.80
33 05 84 00-0015 EA 8' Diameter x 10" Thick Precast Manhole Top Cone.....	1,921.61	122.11
33 05 84 00-0016 Pipe To Manhole Connector <small>(33 05 84 00-0001)</small>		
33 05 84 00-0017 Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connectors <small>(33 05 84 00-0016)</small>		
33 05 84 00-0018 EA 4" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	71.51	
33 05 84 00-0019 EA 6" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	105.49	
33 05 84 00-0020 EA 8" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	118.91	
33 05 84 00-0021 EA 10" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	180.16	
33 05 84 00-0022 EA 12" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	251.88	
33 05 84 00-0023 EA 15" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	333.28	

33 Utilities**33 05 Common Work Results For Utilities****33 05 84 Accessories for Utility Structures**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 84 00-0024 EA 18" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	600.94	
33 05 84 00-0025 EA 21" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	834.72	
33 05 84 00-0026 EA 24" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	1,317.38	
33 05 84 00-0027 EA 27" Ethylene Propylene Diene Monomer (EPDM) Pipe To Manhole Boot Connector.....	1,550.96	
33 05 84 00-0028 Elastomeric Polyvinyl Chloride (PVC) Flexible Manhole Adapter And Grout <small>(33 05 84 00-0016)</small> Note: Fernco CMA.		
33 05 84 00-0029 EA 4" Elastomeric Polyvinyl Chloride (PVC) Flexible Manhole Adapter And Grout	84.98	
33 05 84 00-0030 EA 6" Elastomeric Polyvinyl Chloride (PVC) Flexible Manhole Adapter And Grout	117.03	
33 05 84 00-0031 EA 8" Elastomeric Polyvinyl Chloride (PVC) Flexible Manhole Adapter And Grout	147.56	
33 05 84 00-0032 EA 10" Elastomeric Polyvinyl Chloride (PVC) Flexible Manhole Adapter And Grout	177.98	
33 05 84 00-0033 EA 12" Elastomeric Polyvinyl Chloride (PVC) Flexible Manhole Adapter And Grout	206.68	
33 05 84 00-0034 Brick And Grout Pipe To Manhole Connector <small>(33 05 84 00-0016)</small>		
33 05 84 00-0035 EA Seal Gap Between Pipe And Structure With Brick And Grout	201.30	
33 05 84 00-0036 Inverts For Manholes <small>(33 05 84 00-0001)</small>		
33 05 84 00-0037 EA Single Channel Concrete Invert For Manholes	337.68	
33 05 84 00-0038 EA Double Channel Concrete Invert For Manholes	489.63	
33 05 84 00-0039 EA Triple Channel Concrete Invert For Manholes.....	658.52	
33 05 84 00-0040 EA Quad Channel Concrete Invert For Manholes.....	827.37	
33 05 84 00-0041 EA Single Channel Brick Invert For Manholes	517.29	
33 05 84 00-0042 EA Double Channel Brick Invert For Manholes.....	774.34	
33 05 84 00-0043 EA Triple Channel Brick Invert For Manholes	1,035.81	
33 05 84 00-0044 EA Quad Channel Brick Invert For Manholes	1,294.38	
33 05 84 00-0045 Protective Coating For New Manholes <small>(33 05 84 00-0001)</small>		
33 05 84 00-0046 Polyurethane Protective Coating For New Manholes <small>(33 05 84 00-0045)</small>		
33 05 84 00-0047 VLF 60 Mil Polyurethane Coating Of 3' Diameter Manhole Interior	153.26	
For 80 Mil Material, Add	20.59	
For 100 Mil Material, Add	41.18	
For 125 Mil Material, Add	64.71	
For 150 Mil Material, Add	88.23	
For 200 Mil Material, Add	129.38	
For 2 To 5 Manholes, Deduct	-10.61	
For 6 To 10 Manholes, Deduct	-17.40	
For >10 Manholes, Deduct	-34.79	
33 05 84 00-0048 VLF 60 Mil Polyurethane Coating Of 3-1/2' Diameter Manhole Interior	185.40	
For 80 Mil Material, Add	24.53	
For 100 Mil Material, Add	49.06	
For 125 Mil Material, Add	77.01	
For 150 Mil Material, Add	104.96	
For 200 Mil Material, Add	153.66	
For 2 To 5 Manholes, Deduct	-12.88	
For 6 To 10 Manholes, Deduct	-21.12	
For >10 Manholes, Deduct	-42.24	
33 05 84 00-0049 VLF 60 Mil Polyurethane Coating Of 4' Diameter Manhole Interior	204.35	
For 80 Mil Material, Add	27.45	
For 100 Mil Material, Add	54.91	
For 125 Mil Material, Add	86.28	
For 150 Mil Material, Add	117.65	
For 200 Mil Material, Add	172.51	
For 2 To 5 Manholes, Deduct	-14.15	
For 6 To 10 Manholes, Deduct	-23.20	
For >10 Manholes, Deduct	-46.39	
33 05 84 00-0050 VLF 60 Mil Polyurethane Coating Of 5' Diameter Manhole Interior	255.46	
For 80 Mil Material, Add	34.33	
For 100 Mil Material, Add	68.66	
For 125 Mil Material, Add	107.88	
For 150 Mil Material, Add	147.10	
For 200 Mil Material, Add	215.71	
For 2 To 5 Manholes, Deduct	-17.69	
For 6 To 10 Manholes, Deduct	-29.00	
For >10 Manholes, Deduct	-57.99	
33 05 84 00-0051 VLF 60 Mil Polyurethane Coating Of 6' Diameter Manhole Interior	296.06	
For 80 Mil Material, Add	40.41	
For 100 Mil Material, Add	80.81	
For 125 Mil Material, Add	127.09	
For 150 Mil Material, Add	173.37	
For 200 Mil Material, Add	254.65	
For 2 To 5 Manholes, Deduct	-20.44	
For 6 To 10 Manholes, Deduct	-33.48	
For >10 Manholes, Deduct	-66.97	
33 05 84 00-0052 Polyvinyl Chloride (PVC) Liner <small>(33 05 84 00-0045)</small> Note: For new manholes and shop applied.		
33 05 84 00-0053 VLF 3' Diameter Polyvinyl Chloride (PVC) Liner For New Manhole.....	165.55	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 05 84 00-0054 VLF 3-1/2' Diameter Polyvinyl Chloride (PVC) Liner For New Manhole	202.93	
33 05 84 00-0055 VLF 4' Diameter Polyvinyl Chloride (PVC) Liner For New Manhole.....	247.66	
33 05 84 00-0056 VLF 5' Diameter Polyvinyl Chloride (PVC) Liner For New Manhole.....	311.02	
33 05 84 00-0057 VLF 6' Diameter Polyvinyl Chloride (PVC) Liner For New Manhole.....	374.38	
33 05 84 00-0058 SF Polyvinyl Chloride (PVC) Liner At Structures	35.37	
33 05 84 00-0059 Concrete Grade Extensions/Grade Rings (33 05 84 00-0001)		
33 05 84 00-0060 18" Diameter, Concrete Grade Extensions/Grade Rings (33 05 84 00-0059)		
33 05 84 00-0061 EA 4" Rise, 18" Diameter, Concrete Grade Extensions/Grade Rings	71.08	
33 05 84 00-0062 EA 6" Rise, 18" Diameter, Concrete Grade Extensions/Grade Ring.....	77.15	
33 05 84 00-0063 EA 8" Rise, 18" Diameter, Concrete Grade Extensions/Grade Ring.....	83.23	
33 05 84 00-0064 EA 10" Rise, 18" Diameter, Concrete Grade Extensions/Grade Ring.....	89.30	
33 05 84 00-0065 24" Diameter, Concrete Grade Extensions/Grade Rings (33 05 84 00-0059)		
33 05 84 00-0066 EA 4" Rise, 24" Diameter, Concrete Grade Extensions/Grade Ring.....	79.73	
33 05 84 00-0067 EA 6" Rise, 24" Diameter, Concrete Grade Extensions/Grade Ring.....	86.64	
33 05 84 00-0068 EA 8" Rise, 24" Diameter, Concrete Grade Extensions/Grade Ring.....	93.54	
33 05 84 00-0069 EA 10" Rise, 24" Diameter, Concrete Grade Extensions/Grade Ring.....	100.44	
33 05 84 00-0070 30" Diameter, Concrete Grade Extensions/Grade Rings (33 05 84 00-0059)		
33 05 84 00-0071 EA 4" Rise, 30" Diameter, Concrete Grade Extensions/Grade Ring.....	88.23	
33 05 84 00-0072 EA 6" Rise, 30" Diameter, Concrete Grade Extensions/Grade Ring.....	95.93	
33 05 84 00-0073 EA 8" Rise, 30" Diameter, Concrete Grade Extensions/Grade Ring.....	103.62	
33 05 84 00-0074 EA 10" Rise, 30" Diameter, Concrete Grade Extensions/Grade Ring.....	111.32	
33 05 84 00-0075 Bentonite Collar (33 05 84 00-0001)		
33 05 84 00-0076 Bentonite Collar At Manhole Connections (33 05 84 00-0075)		
33 05 84 00-0077 EA Up To 12" Pipe, Bentonite Collar At Manhole Connection	111.04	
33 05 84 00-0078 EA >12" To 21", Bentonite Collar At Manhole Connection.....	176.11	
33 05 84 00-0079 EA >21" To 30" Pipe, Bentonite Collar At Manhole Connection	281.11	
33 05 84 00-0080 EA >30" To 36" Pipe, Bentonite Collar At Manhole Connection	659.47	
33 05 84 00-0081 EA >36" To 48" Pipe, Bentonite Collar At Manhole Connection	1,014.90	
33 05 84 00-0082 EA >48" To 60" Pipe, Bentonite Collar At Manhole Connection	1,838.84	
33 05 84 00-0083 Waste Water Collection System Taps (33 05 84)		
Note: For tapping existing structures only. Includes gROUT.		
33 05 84 00-0084 Brick Manhole Taps (33 05 84 00-0083)		
33 05 84 00-0085 EA 4" Tap In 6" Brick Manhole.....	452.52	
33 05 84 00-0086 EA 6" Tap In 6" Brick Manhole.....	505.62	
33 05 84 00-0087 EA 8" Tap In 6" Brick Manhole.....	557.78	
33 05 84 00-0088 EA 10" Tap In 6" Brick Manhole.....	609.82	
33 05 84 00-0089 EA 12" Tap In 6" Brick Manhole.....	672.72	
33 05 84 00-0090 EA 15" Tap In 6" Brick Manhole.....	724.66	
33 05 84 00-0091 Precast Concrete Manhole Tap (33 05 84 00-0083)		
33 05 84 00-0092 EA 4" Tap In Existing Precast Concrete Manhole.....	654.80	
33 05 84 00-0093 EA 6" Tap In Existing Precast Concrete Manhole.....	734.45	
33 05 84 00-0094 EA 8" Tap In Existing Precast Concrete Manhole.....	819.85	
33 05 84 00-0095 EA 10" Tap In Existing Precast Concrete Manhole.....	897.92	
33 05 84 00-0096 EA 12" Tap In Existing Precast Concrete Manhole.....	975.83	
33 05 84 00-0097 EA 15" Tap In Existing Precast Concrete Manhole.....	1,055.64	
33 05 84 00-0098 EA 18" Tap In Existing Precast Concrete Manhole.....	1,209.54	
33 05 84 00-0099 EA 24" Tap In Existing Precast Concrete Manhole.....	1,551.18	
33 05 97 Identification and Signage for Utilities (33 05)		
33 05 97 23 Utility Identification Warning Tape (33 05 97)		
33 05 97 23-0001 Non-Detectable Utility Warning Tape (33 05 97 23)		
Note: Labor installation is included with pipe and excavation..		
33 05 97 23-0002 CLF 3" Non-Detectable Utility Warning Tape.....	6.03	
33 05 97 23-0003 CLF 6" Non-Detectable Utility Warning Tape.....	8.05	
33 05 97 23-0004 Detectable Utility Warning Tape (33 05 97 23)		
Note: Labor installation is included with pipe and excavation..		
33 05 97 23-0005 CLF 2" Detectable Utility Warning Tape	5.98	
33 05 97 23-0006 CLF 3" Detectable Utility Warning Tape	7.85	
33 05 97 23-0007 CLF 6" Detectable Utility Warning Tape	11.87	

33 Utilities**33 10 Water Utilities**

33 05 97 Identification and Signage for Utilities

MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST**33 10 Water Utilities** ⁽³³⁾**33 11 Groundwater Sources** ^(33 10)**33 11 13 Potable Water Supply Wells** ^(33 11)33 11 13 00-0001 Drill And Test Water Well ^(33 11 13)33 11 13 00-0002 Drill Hole ^(33 11 13 00-0001)

Note: Excludes loading and hauling of spoils.

33 11 13 00-0003 Mobilization And Demobilization ^(33 11 13 00-0002)

33 11 13 00-0004	EA	Up To 12" Diameter, Well Drilling Mobilization And Demobilization	792.38
33 11 13 00-0005	EA	>12" To 24" Diameter, Well Drilling Mobilization And Demobilization	985.36
33 11 13 00-0006	EA	>24" To 36" Diameter, Well Drilling Mobilization And Demobilization	1,478.03

33 11 13 00-0007 Drill Hole In Normal Soil, Sand, Gravel, O.B. ^(33 11 13 00-0002)

Note: Excludes well casing, gravel or materials.

33 11 13 00-0008	LF	Up To 6" Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	19.09
		For >100 To 250, Add	0.48
		For >250 To 400, Add	0.95
		For >400 To 600, Add	1.43
		For >600 To 750, Add	1.91
		For >750, Add	2.39
33 11 13 00-0009	LF	8" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	22.66
		For >100 To 250, Add	0.57
		For >250 To 400, Add	1.13
		For >400 To 600, Add	1.70
		For >600 To 750, Add	2.27
		For >750, Add	2.83
33 11 13 00-0010	LF	10" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	30.29
		For >100 To 250, Add	0.76
		For >250 To 400, Add	1.51
		For >400 To 600, Add	2.27
		For >600 To 750, Add	3.03
		For >750, Add	3.79
33 11 13 00-0011	LF	12" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	47.42
		For >100 To 250, Add	1.19
		For >250 To 400, Add	2.37
		For >400 To 600, Add	3.56
		For >600 To 750, Add	4.74
		For >750, Add	5.93
33 11 13 00-0012	LF	14" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	68.23
		For >100 To 250, Add	1.71
		For >250 To 400, Add	3.41
		For >400 To 600, Add	5.12
		For >600 To 750, Add	6.82
		For >750, Add	8.53
33 11 13 00-0013	LF	16" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	89.18
		For >100 To 250, Add	2.23
		For >250 To 400, Add	4.46
		For >400 To 600, Add	6.69
		For >600 To 750, Add	8.92
		For >750, Add	11.15
33 11 13 00-0014	LF	18" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	105.92
		For >100 To 250, Add	2.65
		For >250 To 400, Add	5.30
		For >400 To 600, Add	7.94
		For >600 To 750, Add	10.59
		For >750, Add	13.24
33 11 13 00-0015	LF	20" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	123.16
		For >100 To 250, Add	3.08
		For >250 To 400, Add	6.16
		For >400 To 600, Add	9.24
		For >600 To 750, Add	12.32
		For >750, Add	15.40
33 11 13 00-0016	LF	22" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	144.72
		For >100 To 250, Add	3.62
		For >250 To 400, Add	7.24
		For >400 To 600, Add	10.85
		For >600 To 750, Add	14.47
		For >750, Add	18.09
33 11 13 00-0017	LF	24" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	170.59
		For >100 To 250, Add	4.26
		For >250 To 400, Add	8.53
		For >400 To 600, Add	12.79
		For >600 To 750, Add	17.06
		For >750, Add	21.32
33 11 13 00-0018	LF	26" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	184.38
		For >100 To 250, Add	4.61
		For >250 To 400, Add	9.22
		For >400 To 600, Add	13.83
		For >600 To 750, Add	18.44
		For >750, Add	23.05



Utilities	33	CS
Water Utilities	33 10	
Groundwater Sources	33 11	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 11 13 00-0019 LF 28" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	202.86	
For >100 To 250, Add	5.07	
For >250 To 400, Add	10.14	
For >400 To 600, Add	15.21	
For >600 To 750, Add	20.29	
For >750, Add	25.36	
33 11 13 00-0020 LF 30" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	222.20	
For >100 To 250, Add	5.56	
For >250 To 400, Add	11.11	
For >400 To 600, Add	16.67	
For >600 To 750, Add	22.22	
For >750, Add	27.78	
33 11 13 00-0021 LF 36" Water Well Hole Drilled In Normal Soil, Sand, Gravel, O.B.	276.40	
For >100 To 250, Add	6.91	
For >250 To 400, Add	13.82	
For >400 To 600, Add	20.73	
For >600 To 750, Add	27.64	
For >750, Add	34.55	
33 11 13 00-0022 Drill Hole In Sedimentary Rock (33 11 13 00-0002)		
33 11 13 00-0023 LF 6" Water Well Hole Drilled In Sedimentary Rock.....	38.92	
For >100 To 250, Add	0.97	
For >250 To 400, Add	1.95	
For >400 To 600, Add	2.92	
For >600 To 750, Add	3.89	
For >750, Add	4.87	
33 11 13 00-0024 LF 8" Water Well Hole Drilled In Sedimentary Rock.....	45.32	
For >100 To 250, Add	1.13	
For >250 To 400, Add	2.27	
For >400 To 600, Add	3.40	
For >600 To 750, Add	4.53	
For >750, Add	5.67	
33 11 13 00-0025 LF 10" Water Well Hole Drilled In Sedimentary Rock.....	72.57	
For >100 To 250, Add	1.81	
For >250 To 400, Add	3.63	
For >400 To 600, Add	5.44	
For >600 To 750, Add	7.26	
For >750, Add	9.07	
33 11 13 00-0026 LF 12" Water Well Hole Drilled In Sedimentary Rock.....	94.89	
For >100 To 250, Add	2.37	
For >250 To 400, Add	4.74	
For >400 To 600, Add	7.12	
For >600 To 750, Add	9.49	
For >750, Add	11.86	
33 11 13 00-0027 LF 14" Water Well Hole Drilled In Sedimentary Rock.....	136.57	
For >100 To 250, Add	3.41	
For >250 To 400, Add	6.83	
For >400 To 600, Add	10.24	
For >600 To 750, Add	13.66	
For >750, Add	17.07	
33 11 13 00-0028 LF 16" Water Well Hole Drilled In Sedimentary Rock.....	178.25	
For >100 To 250, Add	4.46	
For >250 To 400, Add	8.91	
For >400 To 600, Add	13.37	
For >600 To 750, Add	17.83	
For >750, Add	22.28	
33 11 13 00-0029 LF 18" Water Well Hole Drilled In Sedimentary Rock.....	211.95	
For >100 To 250, Add	5.30	
For >250 To 400, Add	10.60	
For >400 To 600, Add	15.90	
For >600 To 750, Add	21.20	
For >750, Add	26.49	
33 11 13 00-0030 LF 20" Water Well Hole Drilled In Sedimentary Rock.....	245.94	
For >100 To 250, Add	6.15	
For >250 To 400, Add	12.30	
For >400 To 600, Add	18.45	
For >600 To 750, Add	24.59	
For >750, Add	30.74	
33 11 13 00-0031 LF 22" Water Well Hole Drilled In Sedimentary Rock.....	289.70	
For >100 To 250, Add	7.24	
For >250 To 400, Add	14.49	
For >400 To 600, Add	21.73	
For >600 To 750, Add	28.97	
For >750, Add	36.21	
33 11 13 00-0032 LF 24" Water Well Hole Drilled In Sedimentary Rock.....	334.62	
For >100 To 250, Add	8.37	
For >250 To 400, Add	16.73	
For >400 To 600, Add	25.10	
For >600 To 750, Add	33.46	
For >750, Add	41.83	

33	Utilities
33 10	Water Utilities
33 11	Groundwater Sources



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 11 13 00-0033 LF 26" Water Well Hole Drilled In Sedimentary Rock.....	368.77	
For >100 To 250, Add	9.22	
For >250 To 400, Add	18.44	
For >400 To 600, Add	27.66	
For >600 To 750, Add	36.88	
For >750, Add	46.10	
33 11 13 00-0034 LF 28" Water Well Hole Drilled In Sedimentary Rock.....	405.72	
For >100 To 250, Add	10.14	
For >250 To 400, Add	20.29	
For >400 To 600, Add	30.43	
For >600 To 750, Add	40.57	
For >750, Add	50.72	
33 11 13 00-0035 LF 30" Water Well Hole Drilled In Sedimentary Rock.....	444.40	
For >100 To 250, Add	11.11	
For >250 To 400, Add	22.22	
For >400 To 600, Add	33.33	
For >600 To 750, Add	44.44	
For >750, Add	55.55	
33 11 13 00-0036 LF 36" Water Well Hole Drilled In Sedimentary Rock.....	552.78	
For >100 To 250, Add	13.82	
For >250 To 400, Add	27.64	
For >400 To 600, Add	41.46	
For >600 To 750, Add	55.28	
For >750, Add	69.10	
33 11 13 00-0037 Drill Hole In Crystalline Rock (33 11 13 00-0002)		
33 11 13 00-0038 LF 6" Water Well Hole Drilled In Crystalline Rock.....	80.06	
For >100 To 250, Add	2.00	
For >250 To 400, Add	4.00	
For >400 To 600, Add	6.00	
For >600 To 750, Add	8.01	
For >750, Add	10.01	
33 11 13 00-0039 LF 8" Water Well Hole Drilled In Crystalline Rock.....	92.37	
For >100 To 250, Add	2.31	
For >250 To 400, Add	4.62	
For >400 To 600, Add	6.93	
For >600 To 750, Add	9.24	
For >750, Add	11.55	
33 11 13 00-0040 LF 10" Water Well Hole Drilled In Crystalline Rock.....	105.92	
For >100 To 250, Add	2.65	
For >250 To 400, Add	5.30	
For >400 To 600, Add	7.94	
For >600 To 750, Add	10.59	
For >750, Add	13.24	
33 11 13 00-0041 LF 12" Water Well Hole Drilled In Crystalline Rock.....	134.25	
For >100 To 250, Add	3.36	
For >250 To 400, Add	6.71	
For >400 To 600, Add	10.07	
For >600 To 750, Add	13.43	
For >750, Add	16.78	
33 11 13 00-0042 LF 14" Water Well Hole Drilled In Crystalline Rock.....	173.67	
For >100 To 250, Add	4.34	
For >250 To 400, Add	8.68	
For >400 To 600, Add	13.03	
For >600 To 750, Add	17.37	
For >750, Add	21.71	
33 11 13 00-0043 LF 16" Water Well Hole Drilled In Crystalline Rock.....	252.49	
For >100 To 250, Add	6.31	
For >250 To 400, Add	12.62	
For >400 To 600, Add	18.94	
For >600 To 750, Add	25.25	
For >750, Add	31.56	
33 11 13 00-0044 LF 18" Water Well Hole Drilled In Crystalline Rock.....	300.54	
For >100 To 250, Add	7.51	
For >250 To 400, Add	15.03	
For >400 To 600, Add	22.54	
For >600 To 750, Add	30.05	
For >750, Add	37.57	
33 11 13 00-0045 LF 20" Water Well Hole Drilled In Crystalline Rock.....	348.57	
For >100 To 250, Add	8.71	
For >250 To 400, Add	17.43	
For >400 To 600, Add	26.14	
For >600 To 750, Add	34.86	
For >750, Add	43.57	
33 11 13 00-0046 LF 22" Water Well Hole Drilled In Crystalline Rock.....	410.15	
For >100 To 250, Add	10.25	
For >250 To 400, Add	20.51	
For >400 To 600, Add	30.76	
For >600 To 750, Add	41.02	
For >750, Add	51.27	



	Utilities	33	
	Water Utilities	33 10	33
	Groundwater Sources	33 11	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 11 13 00-0047 LF 24" Water Well Hole Drilled In Crystalline Rock.....	474.21	
For >100 To 250, Add	11.86	
For >250 To 400, Add	23.71	
For >400 To 600, Add	35.57	
For >600 To 750, Add	47.42	
For >750, Add	59.28	
33 11 13 00-0048 Furnish And Install Casing (33 11 13 00-0001)		
Note: Excludes drilling of hole.		
33 11 13 00-0049 Steel Well Casing (33 11 13 00-0048)		
33 11 13 00-0050 LF 6" Diameter, Steel Well Casing, Flush.....	29.22	
For >100 To 250, Deduct	-0.92	
For >250 To 400, Deduct	-1.66	
For >400 To 600, Deduct	-2.48	
For >600 To 750, Deduct	-3.31	
For >750, Deduct	-4.39	
33 11 13 00-0051 LF 8" Diameter, Steel Well Casing, Flush.....	36.35	
For >100 To 250, Deduct	-1.15	
For >250 To 400, Deduct	-2.06	
For >400 To 600, Deduct	-3.09	
For >600 To 750, Deduct	-4.12	
For >750, Deduct	-5.47	
33 11 13 00-0052 LF 10" Diameter, Steel Well Casing, Flush.....	52.99	
For >100 To 250, Deduct	-1.62	
For >250 To 400, Deduct	-2.94	
For >400 To 600, Deduct	-4.41	
For >600 To 750, Deduct	-5.88	
For >750, Deduct	-7.73	
33 11 13 00-0053 LF 12" Diameter, Steel Well Casing, Flush.....	87.23	
For >100 To 250, Deduct	-2.53	
For >250 To 400, Deduct	-4.71	
For >400 To 600, Deduct	-7.07	
For >600 To 750, Deduct	-9.42	
For >750, Deduct	-12.23	
33 11 13 00-0054 LF 14" Diameter, Steel Well Casing, Flush.....	98.97	
For >100 To 250, Deduct	-2.96	
For >250 To 400, Deduct	-5.43	
For >400 To 600, Deduct	-8.15	
For >600 To 750, Deduct	-10.87	
For >750, Deduct	-14.22	
33 11 13 00-0055 LF 16" Diameter, Steel Well Casing, Flush.....	116.58	
For >100 To 250, Deduct	-3.52	
For >250 To 400, Deduct	-6.43	
For >400 To 600, Deduct	-9.65	
For >600 To 750, Deduct	-12.86	
For >750, Deduct	-16.86	
33 11 13 00-0056 LF 18" Diameter, Steel Well Casing, Flush.....	133.87	
For >100 To 250, Deduct	-4.10	
For >250 To 400, Deduct	-7.45	
For >400 To 600, Deduct	-11.18	
For >600 To 750, Deduct	-14.90	
For >750, Deduct	-19.61	
33 11 13 00-0057 LF 20" Diameter, Steel Well Casing, Flush.....	153.45	
For >100 To 250, Deduct	-4.77	
For >250 To 400, Deduct	-8.60	
For >400 To 600, Deduct	-12.91	
For >600 To 750, Deduct	-17.21	
For >750, Deduct	-22.72	
33 11 13 00-0058 LF 24" Diameter, Steel Well Casing, Flush.....	178.85	
For >100 To 250, Deduct	-5.52	
For >250 To 400, Deduct	-9.99	
For >400 To 600, Deduct	-14.99	
For >600 To 750, Deduct	-19.98	
For >750, Deduct	-26.34	
33 11 13 00-0059 LB Steel Well Casing, Furnish And Install.....	1.04	
For >100 To 250, Deduct	-0.04	
For >250 To 400, Deduct	-0.07	
For >400 To 600, Deduct	-0.10	
For >600 To 750, Deduct	-0.13	
For >750, Deduct	-0.18	
33 11 13 00-0060 Stainless Steel Well Casing, Flush Threaded (33 11 13 00-0048)		
33 11 13 00-0061 LF 6" Diameter, Stainless Steel Well Casing, Flush.....	65.19	
For >100 To 250, Deduct	-1.82	
For >250 To 400, Deduct	-3.45	
For >400 To 600, Deduct	-5.18	
For >600 To 750, Deduct	-6.91	
For >750, Deduct	-8.89	

33 Utilities**33 10 Water Utilities****33 11 Groundwater Sources**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 11 13 00-0062 LF 8" Diameter, Stainless Steel Well Casing, Flush.....	97.65	
For >100 To 250, Deduct	-2.68	
For >250 To 400, Deduct	-5.13	
For >400 To 600, Deduct	-7.69	
For >600 To 750, Deduct	-10.25	
For >750, Deduct	-13.13	
33 11 13 00-0063 LF 10" Diameter, Stainless Steel Well Casing, Flush.....	136.27	
For >100 To 250, Deduct	-3.72	
For >250 To 400, Deduct	-7.12	
For >400 To 600, Deduct	-10.69	
For >600 To 750, Deduct	-14.25	
For >750, Deduct	-18.21	
33 11 13 00-0064 LF 12" Diameter, Stainless Steel Well Casing, Flush.....	158.51	
For >100 To 250, Deduct	-4.33	
For >250 To 400, Deduct	-8.29	
For >400 To 600, Deduct	-12.44	
For >600 To 750, Deduct	-16.59	
For >750, Deduct	-21.22	
33 11 13 00-0065 Stainless Steel Well Casing, Welded Ring (33 11 13 00-0048)		
33 11 13 00-0066 LF 10" Diameter, Stainless Steel Well Casing, Welded	145.58	
For >100 To 250, Deduct	-4.18	
For >250 To 400, Deduct	-7.82	
For >400 To 600, Deduct	-11.73	
For >600 To 750, Deduct	-15.65	
For >750, Deduct	-20.26	
33 11 13 00-0067 LF 12" Diameter, Stainless Steel Well Casing, Welded	168.60	
For >100 To 250, Deduct	-4.84	
For >250 To 400, Deduct	-9.05	
For >400 To 600, Deduct	-13.58	
For >600 To 750, Deduct	-18.10	
For >750, Deduct	-23.43	
33 11 13 00-0068 LF 14" Diameter, Stainless Steel Well Casing, Welded	202.35	
For >100 To 250, Deduct	-5.76	
For >250 To 400, Deduct	-10.82	
For >400 To 600, Deduct	-16.22	
For >600 To 750, Deduct	-21.63	
For >750, Deduct	-27.95	
33 11 13 00-0069 LF 16" Diameter, Stainless Steel Well Casing, Welded	231.68	
For >100 To 250, Deduct	-6.59	
For >250 To 400, Deduct	-12.38	
For >400 To 600, Deduct	-18.57	
For >600 To 750, Deduct	-24.76	
For >750, Deduct	-31.98	
33 11 13 00-0070 LF 18" Diameter, Stainless Steel Well Casing, Welded	256.01	
For >100 To 250, Deduct	-7.31	
For >250 To 400, Deduct	-13.71	
For >400 To 600, Deduct	-20.57	
For >600 To 750, Deduct	-27.43	
For >750, Deduct	-35.47	
33 11 13 00-0071 LF 20" Diameter, Stainless Steel Well Casing, Welded	334.88	
For >100 To 250, Deduct	-9.46	
For >250 To 400, Deduct	-17.83	
For >400 To 600, Deduct	-26.75	
For >600 To 750, Deduct	-35.66	
For >750, Deduct	-45.99	
33 11 13 00-0072 LF 24" Diameter, Stainless Steel Well Casing, Welded	440.82	
For >100 To 250, Deduct	-12.38	
For >250 To 400, Deduct	-23.40	
For >400 To 600, Deduct	-35.10	
For >600 To 750, Deduct	-46.80	
For >750, Deduct	-60.27	
33 11 13 00-0073 Polyvinyl Chloride (PVC) Well Casing, Schedule 80 (33 11 13 00-0048)		
33 11 13 00-0074 LF 6" Polyvinyl Chloride (PVC) Well Casing.....	37.23	
For >100 To 250, Deduct	-1.09	
For >250 To 400, Deduct	-2.02	
For >400 To 600, Deduct	-3.03	
For >600 To 750, Deduct	-4.03	
For >750, Deduct	-5.24	
33 11 13 00-0075 LF 8" Polyvinyl Chloride (PVC) Well Casing.....	59.11	
For >100 To 250, Deduct	-1.72	
For >250 To 400, Deduct	-3.20	
For >400 To 600, Deduct	-4.80	
For >600 To 750, Deduct	-6.40	
For >750, Deduct	-8.31	
33 11 13 00-0076 LF 10" Polyvinyl Chloride (PVC) Well Casing.....	89.34	
For >100 To 250, Deduct	-2.60	
For >250 To 400, Deduct	-4.84	
For >400 To 600, Deduct	-7.25	
For >600 To 750, Deduct	-9.67	
For >750, Deduct	-12.57	



Utilities	33	CS
Water Utilities	33 10	
Groundwater Sources	33 11	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 11 13 00-0077 LF 12" Polyvinyl Chloride (PVC) Well Casing	105.45	
For >100 To 250, Deduct	-3.08	
For >250 To 400, Deduct	-5.72	
For >400 To 600, Deduct	-8.58	
For >600 To 750, Deduct	-11.44	
For >750, Deduct	-14.88	
33 11 13 00-0078 Furnish And Install Well Screen Assembly (33 11 13 00-0001)		
33 11 13 00-0079 Stainless Steel Well Screen (33 11 13 00-0078)		
33 11 13 00-0080 LF 2" Stainless Steel Well Screen	20.96	1.55
For >100 To 250, Deduct	-0.72	
For >250 To 400, Deduct	-1.25	
For >400 To 600, Deduct	-1.87	
For >600 To 750, Deduct	-2.49	
For >750, Deduct	-3.38	
33 11 13 00-0081 LF 3" Stainless Steel Well Screen	32.80	1.55
For >100 To 250, Deduct	-1.04	
For >250 To 400, Deduct	-1.86	
For >400 To 600, Deduct	-2.78	
For >600 To 750, Deduct	-3.71	
For >750, Deduct	-4.92	
33 11 13 00-0082 LF 4" Stainless Steel Well Screen	41.20	2.33
For >100 To 250, Deduct	-1.30	
For >250 To 400, Deduct	-2.33	
For >400 To 600, Deduct	-3.50	
For >600 To 750, Deduct	-4.66	
For >750, Deduct	-6.18	
33 11 13 00-0083 LF 5" Stainless Steel Well Screen	52.00	2.33
For >100 To 250, Deduct	-1.62	
For >250 To 400, Deduct	-2.92	
For >400 To 600, Deduct	-4.39	
For >600 To 750, Deduct	-5.85	
For >750, Deduct	-7.73	
33 11 13 00-0084 LF 6" Stainless Steel Well Screen	62.56	3.11
For >100 To 250, Deduct	-2.00	
For >250 To 400, Deduct	-3.56	
For >400 To 600, Deduct	-5.34	
For >600 To 750, Deduct	-7.12	
For >750, Deduct	-9.46	
33 11 13 00-0085 LF 8" Stainless Steel Well Screen	81.62	3.88
For >100 To 250, Deduct	-2.59	
For >250 To 400, Deduct	-4.63	
For >400 To 600, Deduct	-6.95	
For >600 To 750, Deduct	-9.27	
For >750, Deduct	-12.30	
33 11 13 00-0086 LF 10" Stainless Steel Well Screen	103.76	6.21
For >100 To 250, Deduct	-3.34	
For >250 To 400, Deduct	-5.93	
For >400 To 600, Deduct	-8.90	
For >600 To 750, Deduct	-11.87	
For >750, Deduct	-15.80	
33 11 13 00-0087 LF 12" Stainless Steel Well Screen	121.71	7.76
For >100 To 250, Deduct	-3.91	
For >250 To 400, Deduct	-6.96	
For >400 To 600, Deduct	-10.43	
For >600 To 750, Deduct	-13.91	
For >750, Deduct	-18.52	
33 11 13 00-0088 LF 14" Stainless Steel Well Screen	133.84	8.55
For >100 To 250, Deduct	-4.35	
For >250 To 400, Deduct	-7.69	
For >400 To 600, Deduct	-11.54	
For >600 To 750, Deduct	-15.39	
For >750, Deduct	-20.53	
33 11 13 00-0089 LF 16" Stainless Steel Well Screen	145.07	10.09
For >100 To 250, Deduct	-4.75	
For >250 To 400, Deduct	-8.38	
For >400 To 600, Deduct	-12.57	
For >600 To 750, Deduct	-16.76	
For >750, Deduct	-22.41	
33 11 13 00-0090 LF 18" Stainless Steel Well Screen	174.28	11.64
For >100 To 250, Deduct	-5.74	
For >250 To 400, Deduct	-10.10	
For >400 To 600, Deduct	-15.15	
For >600 To 750, Deduct	-20.20	
For >750, Deduct	-27.05	
33 11 13 00-0091 LF 20" Stainless Steel Well Screen	219.79	14.75
For >100 To 250, Deduct	-7.24	
For >250 To 400, Deduct	-12.73	
For >400 To 600, Deduct	-19.10	
For >600 To 750, Deduct	-25.46	
For >750, Deduct	-34.09	

33 Utilities**33 10 Water Utilities****33 11 Groundwater Sources**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 11 13 00-0092 LF 24" Stainless Steel Well Screen.....	285.22	19.41
For >100 To 250, Deduct	-9.41	
For >250 To 400, Deduct	-16.54	
For >400 To 600, Deduct	-24.82	
For >600 To 750, Deduct	-33.09	
For >750, Deduct	-44.33	
33 11 13 00-0093 LF 26" Stainless Steel Well Screen.....	328.69	22.52
For >100 To 250, Deduct	-10.81	
For >250 To 400, Deduct	-19.02	
For >400 To 600, Deduct	-28.53	
For >600 To 750, Deduct	-38.05	
For >750, Deduct	-50.92	
33 11 13 00-0094 Slotted Polyvinyl Chloride (PVC) Well Screen, Schedule 40 (33 11 13 00-0078)		
33 11 13 00-0095 LF 1-1/4" Diameter Slotted Polyvinyl Chloride (PVC) Well Screen.....	11.24	
For >100 To 250, Deduct	-0.41	
For >250 To 400, Deduct	-0.69	
For >400 To 600, Deduct	-1.03	
For >600 To 750, Deduct	-1.38	
For >750, Deduct	-1.89	
For Schedule 80, Add	2.47	
33 11 13 00-0096 LF 1-1/2" Diameter Slotted Polyvinyl Chloride (PVC) Well Screen.....	12.82	
For >100 To 250, Deduct	-0.46	
For >250 To 400, Deduct	-0.78	
For >400 To 600, Deduct	-1.16	
For >600 To 750, Deduct	-1.55	
For >750, Deduct	-2.12	
For Schedule 80, Add	2.96	
33 11 13 00-0097 LF 2" Diameter Slotted Polyvinyl Chloride (PVC) Well Screen.....	18.32	
For >100 To 250, Deduct	-0.70	
For >250 To 400, Deduct	-1.16	
For >400 To 600, Deduct	-1.74	
For >600 To 750, Deduct	-2.32	
For >750, Deduct	-3.21	
For Schedule 80, Add	3.46	
33 11 13 00-0098 LF 3" Diameter Slotted Polyvinyl Chloride (PVC) Well Screen.....	26.49	
For >100 To 250, Deduct	-0.92	
For >250 To 400, Deduct	-1.59	
For >400 To 600, Deduct	-2.38	
For >600 To 750, Deduct	-3.17	
For >750, Deduct	-4.30	
For Schedule 80, Add	6.42	
33 11 13 00-0099 LF 4" Diameter Slotted Polyvinyl Chloride (PVC) Well Screen.....	33.33	
For >100 To 250, Deduct	-1.16	
For >250 To 400, Deduct	-2.00	
For >400 To 600, Deduct	-3.00	
For >600 To 750, Deduct	-3.99	
For >750, Deduct	-5.42	
For Schedule 80, Add	8.05	
33 11 13 00-0100 LF 5" Diameter Slotted Polyvinyl Chloride (PVC) Well Screen.....	41.64	
For >100 To 250, Deduct	-1.43	
For >250 To 400, Deduct	-2.48	
For >400 To 600, Deduct	-3.71	
For >600 To 750, Deduct	-4.95	
For >750, Deduct	-6.70	
For Schedule 80, Add	10.37	
33 11 13 00-0101 LF 6" Diameter Slotted Polyvinyl Chloride (PVC) Well Screen.....	46.26	
For >100 To 250, Deduct	-1.68	
For >250 To 400, Deduct	-2.84	
For >400 To 600, Deduct	-4.26	
For >600 To 750, Deduct	-5.67	
For >750, Deduct	-7.77	
For Schedule 80, Add	10.12	
33 11 13 00-0102 LF 8" Diameter Slotted Polyvinyl Chloride (PVC) Well Screen.....	66.31	
For >100 To 250, Deduct	-2.33	
For >250 To 400, Deduct	-3.99	
For >400 To 600, Deduct	-5.98	
For >600 To 750, Deduct	-7.97	
For >750, Deduct	-10.84	
For Schedule 80, Add	15.80	
33 11 13 00-0103 Furnish And Install Gravel Pack Material (33 11 13 00-0001)		
Note: Quantity is based on 3" space between wall and the casing or well screen.		
33 11 13 00-0104 Artificial Gravel Pack (33 11 13 00-0103)		
Note: Excludes casing.		
33 11 13 00-0105 LF Artificial Gravel Pack, 6" Casing, 2" Screen.....	14.96	
For >100 To 250, Deduct	-0.60	
For >250 To 400, Deduct	-0.97	
For >400 To 600, Deduct	-1.46	
For >600 To 750, Deduct	-1.94	
For >750, Deduct	-2.72	



	Utilities	33	CS
	Water Utilities	33 10	
	Groundwater Sources	33 11	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 11 13 00-0106 LF Artificial Gravel Pack, 8" Casing, 2" Screen	22.24	
For >100 To 250, Deduct	-0.91	
For >250 To 400, Deduct	-1.46	
For >400 To 600, Deduct	-2.19	
For >600 To 750, Deduct	-2.92	
For >750, Deduct	-4.11	
33 11 13 00-0107 LF Artificial Gravel Pack, 10" Casing, 2" Screen	31.24	
For >100 To 250, Deduct	-1.30	
For >250 To 400, Deduct	-2.08	
For >400 To 600, Deduct	-3.13	
For >600 To 750, Deduct	-4.17	
For >750, Deduct	-5.89	
33 11 13 00-0108 LF Artificial Gravel Pack, 12" Casing, 2" Screen	39.88	
For >100 To 250, Deduct	-1.64	
For >250 To 400, Deduct	-2.64	
For >400 To 600, Deduct	-3.96	
For >600 To 750, Deduct	-5.28	
For >750, Deduct	-7.45	
33 11 13 00-0109 LF Artificial Gravel Pack, 14" Casing, 2" Screen	49.01	
For >100 To 250, Deduct	-2.00	
For >250 To 400, Deduct	-3.22	
For >400 To 600, Deduct	-4.84	
For >600 To 750, Deduct	-6.45	
For >750, Deduct	-9.07	
33 11 13 00-0110 LF Artificial Gravel Pack, 16" Casing, 2" Screen	63.09	
For >100 To 250, Deduct	-2.53	
For >250 To 400, Deduct	-4.11	
For >400 To 600, Deduct	-6.16	
For >600 To 750, Deduct	-8.22	
For >750, Deduct	-11.51	
33 11 13 00-0111 LF Artificial Gravel Pack, 18" Casing, 2" Screen	72.22	
For >100 To 250, Deduct	-2.88	
For >250 To 400, Deduct	-4.69	
For >400 To 600, Deduct	-7.04	
For >600 To 750, Deduct	-9.38	
For >750, Deduct	-13.13	
33 11 13 00-0112 LF Artificial Gravel Pack, 20" Casing, 2" Screen	86.05	
For >100 To 250, Deduct	-3.47	
For >250 To 400, Deduct	-5.62	
For >400 To 600, Deduct	-8.43	
For >600 To 750, Deduct	-11.24	
For >750, Deduct	-15.76	
33 11 13 00-0113 LF Artificial Gravel Pack, 24" Casing, 2" Screen	97.51	
For >100 To 250, Deduct	-3.95	
For >250 To 400, Deduct	-6.39	
For >400 To 600, Deduct	-9.58	
For >600 To 750, Deduct	-12.78	
For >750, Deduct	-17.93	
33 11 13 00-0114 LF Artificial Gravel Pack, 26" Casing, 2" Screen	104.69	
For >100 To 250, Deduct	-4.20	
For >250 To 400, Deduct	-6.81	
For >400 To 600, Deduct	-10.22	
For >600 To 750, Deduct	-13.63	
For >750, Deduct	-19.09	
33 11 13 00-0115 LF Artificial Gravel Pack, 30" Casing, 2" Screen	125.29	
For >100 To 250, Deduct	-5.08	
For >250 To 400, Deduct	-8.21	
For >400 To 600, Deduct	-12.31	
For >600 To 750, Deduct	-16.42	
For >750, Deduct	-23.04	
33 11 13 00-0116 LF Artificial Gravel Pack, 36" Casing, 2" Screen	145.86	
For >100 To 250, Deduct	-6.02	
For >250 To 400, Deduct	-9.66	
For >400 To 600, Deduct	-14.49	
For >600 To 750, Deduct	-19.33	
For >750, Deduct	-27.24	
33 11 13 00-0117 Develop Well <small>(33 11 13 00-0001)</small>		
Note: Pump out drilled well to remove debris and fine material remaining from the drilling process. Excludes disposal.		
33 11 13 00-0118 HR Develop Well	285.69	
33 11 13 00-0119 Pump Test <small>(33 11 13 00-0001)</small>		
Note: To determine water level and GPM flow rate.		
33 11 13 00-0120 HR Pump Test Well	256.64	
33 11 13 00-0121 Test Well <small>(33 11 13 00-0001)</small>		
33 11 13 00-0122 VLF 2-1/2" Diameter Test Well	78.73	
33 11 13 00-0123 Surface Seal, Concrete Filled <small>(33 11 13)</small>		
33 11 13 00-0124 SF Surface Seal Well, Concrete Filled	25.45	



MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 11 13 00-0125		Other Water Well <small>(33 11 13)</small>		
33 11 13 00-0126	SF	Patch Hole In Well Casing	79.51	
33 11 13 00-0127	SF	1/2" Pressure Grout Well.....	1.94	
33 11 13 00-0128	SF	1" Pressure Grout Well.....	3.10	
33 11 13 00-0129	CF	Sediment Removal In Well Casing For Existing Well.....	4.85	
33 11 13 00-0130		Sterilization Of Well <small>(33 11 13)</small>		
33 11 13 00-0131	EA	Well Sterilization, Chlorine	1,478.19	
33 11 13 00-0132		Submersible Well Pumps <small>(33 11 13)</small>		
		Note: Includes pump end, motor and control box.		
33 11 13 00-0133		4" Submersible Well Pumps <small>(33 11 13 00-0132)</small>		
33 11 13 00-0134		Powder Coated Case And Cast Iron Ends <small>(33 11 13 00-0133)</small>		
33 11 13 00-0135	EA	1/2 HP Submersible Well Pump, 4" Diameter Powder Coated Case And Cast Iron Ends	1,229.36	399.16
33 11 13 00-0136	EA	3/4 HP Submersible Well Pump, 4" Diameter Powder Coated Case And Cast Iron Ends	1,403.45	442.41
33 11 13 00-0137	EA	1 HP Submersible Well Pump, 4" Diameter Powder Coated Case And Cast Iron Ends	1,557.44	491.57
33 11 13 00-0138		Stainless Steel Case And Ends <small>(33 11 13 00-0133)</small>		
33 11 13 00-0139	EA	1/2 HP Submersible Well Pump, 4" Diameter Stainless Steel.....	1,402.24	393.26
33 11 13 00-0140	EA	3/4 HP Submersible Well Pump, 4" Diameter Stainless Steel.....	1,601.21	442.41
33 11 13 00-0141	EA	1 HP Submersible Well Pump, 4" Diameter Stainless Steel.....	1,796.63	491.57
33 11 13 00-0142	EA	1-1/2 HP Submersible Well Pump, 4" Diameter Stainless Steel	2,065.45	540.73
33 11 13 00-0143	EA	2 HP Submersible Well Pump, 4" Diameter Stainless Steel.....	2,344.92	589.88
33 11 13 00-0144	EA	3 HP Submersible Well Pump, 4" Diameter Stainless Steel.....	2,896.78	688.20
33 11 13 00-0145	EA	5 HP Submersible Well Pump, 4" Diameter Stainless Steel.....	3,670.07	786.51
33 11 13 00-0146		6" Submersible Well Pumps <small>(33 11 13 00-0132)</small>		
33 11 13 00-0147	EA	5 HP Submersible Well Pump, 6" Diameter Stainless Steel.....	3,496.15	983.15
33 11 13 00-0148	EA	7.5 HP Submersible Well Pump, 6" Diameter Stainless Steel.....	4,049.06	1,081.46
33 11 13 00-0149	EA	10 HP Submersible Well Pump, 6" Diameter Stainless Steel.....	4,624.73	1,179.78
33 11 13 00-0150	EA	15 HP Submersible Well Pump, 6" Diameter Stainless Steel.....	5,866.99	1,376.40
33 14		Water Utility Transmission and Distribution <small>(33 10)</small>		
33 14 11		Water Utility Transmission Piping <small>(33 14)</small>		
		See CSI section 33 14 13 00-0000 for water utility transmission piping.		
33 14 13		Public Water Utility Distribution Piping <small>(33 14)</small>		
		Note: Piping includes hydrostatic testing, disinfecting and warning tape. Excludes excavation and backfill. See CSI section 31 23 16 00-0000 for excavation, 31 23 16 36-0016 for backfill.		
33 14 13 13		Ductile Iron Public Water Utility Distribution Piping <small>(33 14 13)</small>		
33 14 13 13-0001		Ductile Iron Piping <small>(33 14 13 13)</small>		
33 14 13 13-0002		Mechanical Joint Ductile Iron Piping <small>(33 14 13 13-0001)</small>		
		Note: Cement lining and bituminous coating shall conform to ANSI A21.4. See CSI section 33 14 13 13-0500 for bolts and gaskets.		
33 14 13 13-0003		Mechanical Joint Ductile Iron Pipe <small>(33 14 13 13-0002)</small>		
		Note: Conforming to ANSI/AWWA C151/A21.51, federal specification WW-P-421D.		
33 14 13 13-0004	LF	3", Class 51, Mechanical Joint Ductile Iron Pipe	32.97	10.80
		For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	11.64	
		For Cement Mortar Lining (CML), Add	1.66	
		Note: ANSI/AWWA C104/A21.4		
		For 40 Mil Ceramic Epoxy Lining (P401), Add	8.98	
		For Fusion Bonded Epoxy Lining (206N), Add	2.99	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	1.25	
		Note: ANSI/AWWA C151/A21.51		
		For >1,000, Deduct	-1.65	
		For Class 52, Add	3.65	
		For Class 53, Add	9.52	
		For Class 54, Add	13.56	
		For Class 55, Add	15.63	
		For Class 56, Add	17.66	



Utilities	33	CS
Water Utilities	33 10	
Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0005 LF 4", Class 50, Mechanical Joint Ductile Iron Pipe.....	35.69	11.50
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	12.79	
For Cement Mortar Lining (CML), Add	1.83	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	9.87	
For Fusion Bonded Epoxy Lining (206N), Add	3.29	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	1.37	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-1.78	
For Class 51, Add	1.79	
For Class 52, Add	4.00	
For Class 53, Add	10.44	
For Class 54, Add	14.87	
For Class 55, Add	17.14	
For Class 56, Add	19.37	
33 14 13 13-0006 LF 6", Class 50, Mechanical Joint Ductile Iron Pipe.....	38.07	12.07
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	13.88	
For Cement Mortar Lining (CML), Add	1.98	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	10.71	
For Fusion Bonded Epoxy Lining (206N), Add	3.57	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	1.49	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-1.90	
For Class 51, Add	1.94	
For Class 52, Add	4.32	
For Class 53, Add	11.31	
For Class 54, Add	16.11	
For Class 55, Add	18.56	
For Class 56, Add	20.97	
33 14 13 13-0007 LF 8", Class 50, Mechanical Joint Ductile Iron Pipe.....	44.37	12.55
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	17.76	
For Cement Mortar Lining (CML), Add	2.54	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	13.70	
For Fusion Bonded Epoxy Lining (206N), Add	4.57	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	1.90	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-2.22	
For Class 51, Add	2.43	
For Class 52, Add	5.42	
For Class 53, Add	14.31	
For Class 54, Add	20.39	
For Class 55, Add	23.48	
For Class 56, Add	26.50	
33 14 13 13-0008 LF 10", Class 50, Mechanical Joint Ductile Iron Pipe.....	60.12	17.90
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	19.80	
For Cement Mortar Lining (CML), Add	3.30	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	16.50	
For Fusion Bonded Epoxy Lining (206N), Add	5.94	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	2.48	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-3.01	
For Class 51, Add	3.19	
For Class 52, Add	7.12	
For Class 53, Add	18.70	
For Class 54, Add	26.65	
For Class 55, Add	30.69	
For Class 56, Add	34.65	
33 14 13 13-0009 LF 12", Class 50, Mechanical Joint Ductile Iron Pipe.....	72.28	19.88
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	21.08	
For Cement Mortar Lining (CML), Add	4.22	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	16.86	
For Fusion Bonded Epoxy Lining (206N), Add	7.59	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	3.16	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-3.61	
For Class 51, Add	4.01	
For Class 52, Add	8.98	
For Class 53, Add	23.72	
For Class 54, Add	33.81	
For Class 55, Add	38.91	
For Class 56, Add	43.93	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0010 LF 14", Class 50, Mechanical Joint Ductile Iron Pipe.....	86.17	22.33
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	23.00	
For Cement Mortar Lining (CML), Add	5.23	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	17.78	
For Fusion Bonded Epoxy Lining (206N), Add	9.41	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	3.92	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-4.31	
For Class 51, Add	4.94	
For Class 52, Add	11.05	
For Class 53, Add	29.29	
For Class 54, Add	41.76	
For Class 55, Add	48.05	
For Class 56, Add	54.22	
33 14 13 13-0011 LF 16", Class 50, Mechanical Joint Ductile Iron Pipe.....	97.34	25.58
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	24.03	
For Cement Mortar Lining (CML), Add	5.86	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	18.17	
For Fusion Bonded Epoxy Lining (206N), Add	10.55	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	4.40	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-4.87	
For Class 51, Add	5.54	
For Class 52, Add	12.40	
For Class 53, Add	32.86	
For Class 54, Add	46.85	
For Class 55, Add	53.90	
For Class 56, Add	60.83	
33 14 13 13-0012 LF 18", Class 50, Mechanical Joint Ductile Iron Pipe.....	120.36	29.83
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	30.82	
For Cement Mortar Lining (CML), Add	7.52	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	23.30	
For Fusion Bonded Epoxy Lining (206N), Add	13.53	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	5.64	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-6.02	
For Class 51, Add	7.05	
For Class 52, Add	15.79	
For Class 53, Add	41.97	
For Class 54, Add	59.86	
For Class 55, Add	68.85	
For Class 56, Add	77.69	
33 14 13 13-0013 LF 20", Class 50, Mechanical Joint Ductile Iron Pipe.....	137.01	35.80
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	31.45	
For Cement Mortar Lining (CML), Add	8.28	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	23.18	
For Fusion Bonded Epoxy Lining (206N), Add	14.90	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	6.21	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-6.85	
For Class 51, Add	7.82	
For Class 52, Add	17.50	
For Class 53, Add	46.39	
For Class 54, Add	66.15	
For Class 55, Add	76.10	
For Class 56, Add	85.89	
33 14 13 13-0014 LF 24", Class 50, Mechanical Joint Ductile Iron Pipe.....	178.88	44.75
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	34.43	
For Cement Mortar Lining (CML), Add	11.11	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	23.33	
For Fusion Bonded Epoxy Lining (206N), Add	19.99	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	8.33	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-8.94	
For Class 51, Add	10.43	
For Class 52, Add	23.37	
For Class 53, Add	62.07	
For Class 54, Add	88.52	
For Class 55, Add	101.82	
For Class 56, Add	114.89	



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Water Utilities	33 10	
Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0015 LF 30", Class 50, Mechanical Joint Ductile Iron Pipe.....	228.97	48.19
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	48.56	
For Cement Mortar Lining (CML), Add	15.67	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	28.20	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	11.75	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-11.45	
For Class 51, Add	14.42	
For Class 52, Add	32.37	
For Class 53, Add	86.66	
For Class 54, Add	123.67	
For Class 55, Add	142.14	
For Class 56, Add	160.27	
33 14 13 13-0016 LF 36", Class 50, Mechanical Joint Ductile Iron Pipe.....	272.72	51.17
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	60.72	
For Cement Mortar Lining (CML), Add	19.59	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	35.26	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	14.69	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-13.64	
For Class 51, Add	17.86	
For Class 52, Add	40.14	
For Class 53, Add	107.85	
For Class 54, Add	153.96	
For Class 55, Add	176.88	
For Class 56, Add	199.39	
33 14 13 13-0017 LF 42", Class 50, Mechanical Joint Ductile Iron Pipe.....	333.68	54.15
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	78.22	
For Cement Mortar Lining (CML), Add	25.23	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	45.42	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	18.92	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-16.68	
For Class 51, Add	22.79	
For Class 52, Add	51.26	
For Class 53, Add	138.27	
For Class 54, Add	197.45	
For Class 55, Add	226.76	
For Class 56, Add	255.53	
33 14 13 13-0018 LF 48", Class 50, Mechanical Joint Ductile Iron Pipe.....	407.49	57.22
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	99.70	
For Cement Mortar Lining (CML), Add	32.16	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	57.89	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	24.12	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-20.37	
For Class 51, Add	28.83	
For Class 52, Add	64.89	
For Class 53, Add	175.58	
For Class 54, Add	250.78	
For Class 55, Add	287.91	
For Class 56, Add	324.36	
33 14 13 13-0019 Mechanical Joint Ductile Iron 90 Degree Elbow (33 14 13 13-0002)		
33 14 13 13-0020 EA 3" Mechanical Joint Ductile Iron 90 Degree Elbow.....	124.52	34.11
For Cement Mortar Lining (CML), Add	7.28	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	13.11	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	5.46	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0021 EA 4" Mechanical Joint Ductile Iron 90 Degree Elbow.....	141.01	40.76
For Cement Mortar Lining (CML), Add	7.93	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	14.27	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	5.94	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0022 EA 6" Mechanical Joint Ductile Iron 90 Degree Elbow.....	220.81	60.23
For Cement Mortar Lining (CML), Add	12.96	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	23.33	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	9.72	
Note: ANSI/AWWA C151/A21.51		

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0023 EA 8" Mechanical Joint Ductile Iron 90 Degree Elbow.....	296.81	71.45
For Cement Mortar Lining (CML), Add	18.85	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	33.93	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	14.14	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0024 EA 10" Mechanical Joint Ductile Iron 90 Degree Elbow.....	420.12	79.37
For Cement Mortar Lining (CML), Add	29.99	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	53.98	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	22.49	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0025 EA 12" Mechanical Joint Ductile Iron 90 Degree Elbow.....	544.78	93.11
For Cement Mortar Lining (CML), Add	40.38	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	72.68	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	30.28	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0026 EA 14" Mechanical Joint Ductile Iron 90 Degree Elbow.....	834.01	104.41
For Cement Mortar Lining (CML), Add	67.58	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	121.65	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	50.69	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0027 EA 16" Mechanical Joint Ductile Iron 90 Degree Elbow.....	1,098.67	119.32
For Cement Mortar Lining (CML), Add	91.79	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	165.22	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	68.84	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0028 EA 18" Mechanical Joint Ductile Iron 90 Degree Elbow.....	1,358.38	167.05
For Cement Mortar Lining (CML), Add	110.53	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	198.96	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	82.90	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0029 EA 20" Mechanical Joint Ductile Iron 90 Degree Elbow.....	1,857.60	208.81
For Cement Mortar Lining (CML), Add	154.12	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	277.42	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	115.59	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0030 EA 24" Mechanical Joint Ductile Iron 90 Degree Elbow.....	2,721.95	278.06
For Cement Mortar Lining (CML), Add	230.06	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	414.11	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	172.54	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0031 EA 30" Mechanical Joint Ductile Iron 90 Degree Elbow.....	4,143.85	298.30
For Cement Mortar Lining (CML), Add	369.19	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	664.54	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	276.89	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0032 EA 36" Mechanical Joint Ductile Iron 90 Degree Elbow.....	6,241.01	309.69
For Cement Mortar Lining (CML), Add	577.18	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	1,038.93	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	432.89	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0033 EA 42" Mechanical Joint Ductile Iron 90 Degree Elbow.....	10,439.86	357.97
For Cement Mortar Lining (CML), Add	989.75	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	1,781.55	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	742.31	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0034 EA 48" Mechanical Joint Ductile Iron 90 Degree Elbow.....	13,774.35	380.84
For Cement Mortar Lining (CML), Add	1,319.74	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	2,375.52	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	989.80	
Note: ANSI/AWWA C151/A21.51		

33 14 13 13-0035 Mechanical Joint Ductile Iron 45 Degree Elbow (33 14 13 13-0002)



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	Water Utilities	33 10
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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0036	EA	3" Mechanical Joint Ductile Iron 45 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	117.02 6.53 11.76 4.90	34.11
33 14 13 13-0037	EA	4" Mechanical Joint Ductile Iron 45 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	127.08 6.53 11.76 4.90	40.76
33 14 13 13-0038	EA	6" Mechanical Joint Ductile Iron 45 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	196.17 10.50 18.89 7.87	60.23
33 14 13 13-0039	EA	8" Mechanical Joint Ductile Iron 45 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	261.47 15.32 27.57 11.49	71.45
33 14 13 13-0040	EA	10" Mechanical Joint Ductile Iron 45 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	344.08 22.39 40.29 16.79	79.37
33 14 13 13-0041	EA	12" Mechanical Joint Ductile Iron 45 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	475.16 33.42 60.15 25.06	93.11
33 14 13 13-0042	EA	14" Mechanical Joint Ductile Iron 45 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	684.06 52.59 94.66 39.44	104.41
33 14 13 13-0043	EA	16" Mechanical Joint Ductile Iron 45 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	836.27 65.55 117.99 49.16	119.32
33 14 13 13-0044	EA	18" Mechanical Joint Ductile Iron 45 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,193.44 94.04 169.27 70.53	167.05
33 14 13 13-0045	EA	20" Mechanical Joint Ductile Iron 45 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,321.01 100.46 180.84 75.35	208.81
33 14 13 13-0046	EA	24" Mechanical Joint Ductile Iron 45 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,947.59 152.62 274.72 114.47	278.06
33 14 13 13-0047	EA	30" Mechanical Joint Ductile Iron 45 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	3,552.64 310.07 558.12 232.55	298.30

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0048 EA 36" Mechanical Joint Ductile Iron 45 Degree Elbow.....	5,002.89	309.69
For Cement Mortar Lining (CML), Add	453.37	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	816.07	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	340.03	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0049 EA 42" Mechanical Joint Ductile Iron 45 Degree Elbow.....	7,508.42	357.97
For Cement Mortar Lining (CML), Add	696.60	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	1,253.89	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	522.45	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0050 EA 48" Mechanical Joint Ductile Iron 45 Degree Elbow.....	9,705.47	380.84
For Cement Mortar Lining (CML), Add	912.85	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	1,643.12	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	684.64	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0051 Mechanical Joint Ductile Iron 22-1/2 Degree Elbow (33 14 13 13-0002)		
33 14 13 13-0052 EA 3" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	103.10	34.11
For Cement Mortar Lining (CML), Add	5.14	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	9.25	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	3.86	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0053 EA 4" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	123.87	40.76
For Cement Mortar Lining (CML), Add	6.21	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	11.18	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	4.66	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0054 EA 6" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	187.60	60.23
For Cement Mortar Lining (CML), Add	9.64	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	17.35	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	7.23	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0055 EA 8" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	258.26	71.45
For Cement Mortar Lining (CML), Add	15.00	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	26.99	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	11.25	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0056 EA 10" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	343.01	79.37
For Cement Mortar Lining (CML), Add	22.28	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	40.10	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	16.71	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0057 EA 12" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	433.39	93.11
For Cement Mortar Lining (CML), Add	29.24	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	52.63	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	21.93	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0058 EA 14" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	690.49	104.41
For Cement Mortar Lining (CML), Add	53.23	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	95.82	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	39.92	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0059 EA 16" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	809.49	119.32
For Cement Mortar Lining (CML), Add	62.87	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	113.17	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	47.15	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0060 EA 18" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	1,025.29	167.05
For Cement Mortar Lining (CML), Add	77.22	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	139.00	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	57.92	
Note: ANSI/AWWA C151/A21.51		



Utilities	33	CS
Water Utilities	33 10	
Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0061 EA 20" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,365.99 104.96 188.93 78.72	208.81
33 14 13 13-0062 EA 24" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,829.78 140.84 253.52 105.63	278.06
33 14 13 13-0063 EA 30" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,050.32 259.83 467.70 194.88	298.30
33 14 13 13-0064 EA 36" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,277.80 380.86 685.55 285.65	309.69
33 14 13 13-0065 EA 42" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,292.79 575.04 1,035.07 431.28	357.97
33 14 13 13-0066 EA 48" Mechanical Joint Ductile Iron 22-1/2 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	8,064.64 748.76 1,347.78 561.57	380.84
33 14 13 13-0067 Mechanical Joint Ductile Iron 11-1/4 Degree Elbow (33 14 13 13-0002)		
33 14 13 13-0068 EA 3" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	103.10 5.14 9.25 3.86	34.11
33 14 13 13-0069 EA 4" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	120.66 5.89 10.60 4.42	40.76
33 14 13 13-0070 EA 6" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	190.82 9.96 17.93 7.47	60.23
33 14 13 13-0071 EA 8" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	244.33 13.60 24.48 10.20	71.45
33 14 13 13-0072 EA 10" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	340.86 22.06 39.71 16.55	79.37
33 14 13 13-0073 EA 12" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	415.19 27.42 49.35 20.56	93.11

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0074 EA 14" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	765.46	104.41
For Cement Mortar Lining (CML), Add	60.73	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	109.31	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	45.55	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0075 EA 16" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	845.91	119.32
For Cement Mortar Lining (CML), Add	66.51	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	119.72	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	49.88	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0076 EA 18" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	1,228.79	167.05
For Cement Mortar Lining (CML), Add	97.57	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	175.63	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	73.18	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0077 EA 20" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	1,304.94	208.81
For Cement Mortar Lining (CML), Add	98.86	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	177.94	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	74.14	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0078 EA 24" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	1,739.81	278.06
For Cement Mortar Lining (CML), Add	131.85	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	237.32	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	98.88	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0079 EA 30" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	3,097.45	298.30
For Cement Mortar Lining (CML), Add	264.55	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	476.18	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	198.41	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0080 EA 36" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	4,085.01	309.69
For Cement Mortar Lining (CML), Add	361.58	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	650.85	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	271.19	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0081 EA 42" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	6,030.39	357.97
For Cement Mortar Lining (CML), Add	548.80	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	987.84	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	411.60	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0082 EA 48" Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	8,013.23	380.84
For Cement Mortar Lining (CML), Add	743.62	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	1,338.52	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	557.72	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0083 Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow (33 14 13 13-0002)		
33 14 13 13-0084 EA 3" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	127.73	34.11
For Cement Mortar Lining (CML), Add	7.60	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	13.69	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	5.70	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0085 EA 4" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	156.00	40.76
For Cement Mortar Lining (CML), Add	9.43	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	16.97	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	7.07	
Note: ANSI/AWWA C151/A21.51		



Utilities	33	CS
Water Utilities	33 10	
Water Utility Transmission and Distribution	33 14	

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0086	EA	6" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	247.58 15.64 28.15 11.73	60.23
33 14 13 13-0087	EA	8" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	332.16 22.39 40.29 16.79	71.45
33 14 13 13-0088	EA	10" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	471.53 35.13 63.23 26.35	79.37
33 14 13 13-0089	EA	12" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	600.48 45.95 82.71 34.46	93.11
33 14 13 13-0090	EA	14" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,012.87 85.47 153.84 64.10	104.41
33 14 13 13-0091	EA	16" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,534.58 135.38 243.68 101.53	119.32
33 14 13 13-0092	EA	18" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,791.08 153.80 276.84 115.35	167.05
33 14 13 13-0093	EA	20" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,427.39 211.10 379.98 158.33	208.81
33 14 13 13-0094	EA	24" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,957.58 253.62 456.52 190.22	278.06
33 14 13 13-0095	EA	30" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	5,446.24 499.43 898.97 374.57	298.30
33 14 13 13-0096	EA	36" Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	9,672.63 920.35 1,656.62 690.26	309.69
33 14 13 13-0097		Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow (33 14 13 13-0002)		

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0098 EA 3" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	118.09	34.11
For Cement Mortar Lining (CML), Add	6.64	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	11.95	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	4.98	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0099 EA 4" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	130.30	40.76
For Cement Mortar Lining (CML), Add	6.86	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	12.34	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	5.14	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0100 EA 6" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	207.95	60.23
For Cement Mortar Lining (CML), Add	11.67	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	21.01	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	8.76	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0101 EA 8" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	295.74	71.45
For Cement Mortar Lining (CML), Add	18.74	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	33.74	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	14.06	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0102 EA 10" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	398.70	79.37
For Cement Mortar Lining (CML), Add	27.85	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	50.12	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	20.89	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0103 EA 12" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	537.28	93.11
For Cement Mortar Lining (CML), Add	39.63	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	71.33	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	29.72	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0104 EA 14" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	900.41	104.41
For Cement Mortar Lining (CML), Add	74.22	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	133.60	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	55.67	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0105 EA 16" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	1,357.86	119.32
For Cement Mortar Lining (CML), Add	117.71	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	211.87	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	88.28	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0106 EA 18" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	1,612.22	167.05
For Cement Mortar Lining (CML), Add	135.92	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	244.65	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	101.94	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0107 EA 20" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	2,091.08	208.81
For Cement Mortar Lining (CML), Add	177.47	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	319.45	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	133.10	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0108 EA 24" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	2,633.06	278.06
For Cement Mortar Lining (CML), Add	221.17	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	398.11	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	165.88	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0109 EA 30" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	4,796.12	298.30
For Cement Mortar Lining (CML), Add	434.41	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	781.95	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	325.81	
Note: ANSI/AWWA C151/A21.51		



Utilities	33	CS
Water Utilities	33 10	
Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0110 EA 36" Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	8,476.28 800.71 1,441.28 600.53	309.69
33 14 13 13-0111 Mechanical Joint Ductile Iron Tee (33 14 13 13-0002)		
33 14 13 13-0112 EA 3" x 3" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	201.77 12.42 22.36 9.32	51.17
33 14 13 13-0113 EA 4" x 3" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	210.90 12.42 22.36 9.32	57.19
33 14 13 13-0114 EA 4" x 4" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	195.10 10.39 18.70 7.79	60.23
33 14 13 13-0115 EA 6" x 3" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	258.49 14.35 25.83 10.76	75.88
33 14 13 13-0116 EA 6" x 4" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	294.28 17.46 31.42 13.09	79.01
33 14 13 13-0117 EA 6" x 6" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	321.39 18.74 33.74 14.06	88.46
33 14 13 13-0118 EA 8" x 4" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	341.15 20.24 36.44 15.18	91.57
33 14 13 13-0119 EA 8" x 6" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	386.47 23.35 42.03 17.51	100.97
33 14 13 13-0120 EA 8" x 8" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	444.17 28.17 50.70 21.13	107.27
33 14 13 13-0121 EA 10" x 4" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	460.06 31.06 55.91 23.30	98.64
33 14 13 13-0122 EA 10" x 6" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	463.97 30.10 54.17 22.57	107.59

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0123 EA 10" x 8" Mechanical Joint Ductile Iron Tee.....	524.43	113.56
For Cement Mortar Lining (CML), Add	35.24	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	63.43	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	26.43	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0124 EA 10" x 10" Mechanical Joint Ductile Iron Tee.....	583.50	119.32
For Cement Mortar Lining (CML), Add	40.27	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	72.49	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	30.20	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0125 EA 12" x 4" Mechanical Joint Ductile Iron Tee.....	547.75	110.58
For Cement Mortar Lining (CML), Add	38.02	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	68.44	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	28.52	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0126 EA 12" x 6" Mechanical Joint Ductile Iron Tee.....	620.21	119.52
For Cement Mortar Lining (CML), Add	43.91	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	79.04	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	32.93	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0127 EA 12" x 8" Mechanical Joint Ductile Iron Tee.....	754.57	125.49
For Cement Mortar Lining (CML), Add	56.44	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	101.60	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	42.33	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0128 EA 12" x 10" Mechanical Joint Ductile Iron Tee.....	807.22	131.25
For Cement Mortar Lining (CML), Add	60.84	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	109.50	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	45.63	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0129 EA 12" x 12" Mechanical Joint Ductile Iron Tee.....	770.20	137.22
For Cement Mortar Lining (CML), Add	56.23	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	101.21	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	42.17	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0130 EA 14" x 6" Mechanical Joint Ductile Iron Tee.....	819.35	139.26
For Cement Mortar Lining (CML), Add	60.84	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	109.50	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	45.63	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0131 EA 14" x 8" Mechanical Joint Ductile Iron Tee.....	908.73	145.24
For Cement Mortar Lining (CML), Add	68.87	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	123.96	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	51.65	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0132 EA 14" x 10" Mechanical Joint Ductile Iron Tee.....	1,148.80	150.99
For Cement Mortar Lining (CML), Add	92.00	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	165.60	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	69.00	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0133 EA 14" x 12" Mechanical Joint Ductile Iron Tee.....	1,226.39	156.96
For Cement Mortar Lining (CML), Add	98.86	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	177.94	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	74.14	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0134 EA 14" x 14" Mechanical Joint Ductile Iron Tee.....	1,188.87	166.87
For Cement Mortar Lining (CML), Add	93.61	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	168.50	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	70.21	
Note: ANSI/AWWA C151/A21.51		



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	Water Utilities	33 10
	Water Utility Transmission and Distribution	33 14

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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0135	EA	16" x 6" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,038.09 78.51 141.31 58.88	167.04
33 14 13 13-0136	EA	16" x 8" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,114.70 85.26 153.46 63.94	173.02
33 14 13 13-0137	EA	16" x 10" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,290.51 101.96 183.53 76.47	178.78
33 14 13 13-0138	EA	16" x 12" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,408.80 112.89 203.20 84.67	184.75
33 14 13 13-0139	EA	16" x 14" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,686.16 139.13 250.43 104.35	194.62
33 14 13 13-0140	EA	16" x 16" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,602.24 128.63 231.54 96.47	208.54
33 14 13 13-0141	EA	18" x 6" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,435.66 111.17 200.11 83.38	213.79
33 14 13 13-0142	EA	18" x 8" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,536.82 120.39 216.69 90.29	219.76
33 14 13 13-0143	EA	18" x 10" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,659.08 131.74 237.13 98.80	225.52
33 14 13 13-0144	EA	18" x 12" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,780.58 142.98 257.37 107.24	231.48
33 14 13 13-0145	EA	18" x 14" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,833.02 146.73 264.12 110.05	241.35
33 14 13 13-0146	EA	18" x 16" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,955.81 156.91 282.43 117.68	255.25

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0147	EA	18" x 18" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,283.62 186.15 335.06 139.61	278.60
33 14 13 13-0148	EA	20" x 6" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,715.47 125.10 225.17 93.82	306.57
33 14 13 13-0149	EA	20" x 8" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,752.37 127.88 230.19 95.91	312.54
33 14 13 13-0150	EA	20" x 10" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,901.41 141.91 255.44 106.43	318.31
33 14 13 13-0151	EA	20" x 12" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,049.68 155.84 280.50 116.88	324.27
33 14 13 13-0152	EA	20" x 14" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,076.42 157.01 282.63 117.76	334.14
33 14 13 13-0153	EA	20" x 16" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,110.33 158.30 284.94 118.73	348.03
33 14 13 13-0154	EA	20" x 18" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,629.85 206.71 372.08 155.03	371.40
33 14 13 13-0155	EA	20" x 20" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,348.84 171.58 308.85 128.69	417.81
33 14 13 13-0156	EA	24" x 6" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,109.46 150.48 270.87 112.86	399.08
33 14 13 13-0157	EA	24" x 8" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,137.79 152.41 274.34 114.31	405.61
33 14 13 13-0158	EA	24" x 10" Mechanical Joint Ductile Iron Tee For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,343.59 172.12 309.81 129.09	410.80



	Utilities	33
	Water Utilities	33 10
	Water Utility Transmission and Distribution	33 14

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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0159	EA	24" x 12" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,400.82 176.94 318.48 132.70	416.77
33 14 13 13-0160	EA	24" x 14" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,687.82 204.14 367.45 153.11	426.64
33 14 13 13-0161	EA	24" x 16" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,896.30 222.88 401.19 167.16	440.52
33 14 13 13-0162	EA	24" x 18" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,278.73 257.59 463.65 193.19	463.91
33 14 13 13-0163	EA	24" x 20" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,632.86 285.97 514.74 214.48	510.29
33 14 13 13-0164	EA	24" x 24" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,390.18 254.69 458.45 191.02	556.57
33 14 13 13-0165	EA	30" x 8" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,586.89 287.36 517.25 215.52	470.77
33 14 13 13-0166	EA	30" x 10" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,772.34 305.03 549.06 228.77	476.53
33 14 13 13-0167	EA	30" x 12" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,958.10 322.70 580.87 242.03	482.50
33 14 13 13-0168	EA	30" x 14" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,223.69 347.77 625.98 260.83	492.38
33 14 13 13-0169	EA	30" x 16" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,512.49 374.54 674.18 280.91	655.10
33 14 13 13-0170	EA	30" x 18" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,637.86 383.54 690.37 287.65	529.63

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0171	EA	30" x 20" Mechanical Joint Ductile Iron Tee <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	4,833.48 396.07 712.93 297.05	576.03
33 14 13 13-0172	EA	30" x 24" Mechanical Joint Ductile Iron Tee <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	5,084.55 414.17 745.51 310.63	622.28
33 14 13 13-0173	EA	30" x 30" Mechanical Joint Ductile Iron Tee <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	6,331.77 533.91 961.04 400.43	655.10
33 14 13 13-0174	EA	30" x 6" Mechanical Joint Ductile Iron Tee <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	3,740.64 303.64 546.55 227.73	464.79
33 14 13 13-0175	EA	36" x 8" Mechanical Joint Ductile Iron Tee <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	4,366.40 357.51 643.52 268.13	522.23
33 14 13 13-0176	EA	36" x 10" Mechanical Joint Ductile Iron Tee <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	4,839.96 404.00 727.19 303.00	528.00
33 14 13 13-0177	EA	36" x 12" Mechanical Joint Ductile Iron Tee <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	5,097.48 428.84 771.92 321.63	533.97
33 14 13 13-0178	EA	36" x 14" Mechanical Joint Ductile Iron Tee <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	5,284.89 446.09 802.96 334.57	543.84
33 14 13 13-0179	EA	36" x 16" Mechanical Joint Ductile Iron Tee <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	5,476.23 463.12 833.61 347.34	557.73
33 14 13 13-0180	EA	36" x 18" Mechanical Joint Ductile Iron Tee <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	5,841.52 496.11 892.99 372.08	581.10
33 14 13 13-0181	EA	36" x 20" Mechanical Joint Ductile Iron Tee <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	6,242.76 529.20 952.56 396.90	627.49
33 14 13 13-0182	EA	36" x 24" Mechanical Joint Ductile Iron Tee <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	6,899.76 587.89 1,058.21 440.92	673.74



	Utilities	33
	Water Utilities	33 10
	Water Utility Transmission and Distribution	33 14

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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0183	EA	36" x 30" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	7,614.67 654.41 1,177.93 490.80	732.39
33 14 13 13-0184	EA	36" x 36" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	8,858.58 774.90 1,394.81 581.17	732.39
33 14 13 13-0185	EA	42" x 12" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	9,866.50 901.39 1,622.50 676.04	562.74
33 14 13 13-0186	EA	42" x 14" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	10,063.55 919.60 1,655.27 689.70	572.62
33 14 13 13-0187	EA	42" x 16" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	11,167.41 1,027.88 1,850.18 770.91	586.50
33 14 13 13-0188	EA	42" x 18" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	10,463.80 953.98 1,717.16 715.48	609.86
33 14 13 13-0189	EA	42" x 20" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	10,534.09 953.98 1,717.16 715.48	656.27
33 14 13 13-0190	EA	42" x 24" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	10,778.74 971.43 1,748.58 728.57	702.52
33 14 13 13-0191	EA	42" x 30" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	13,030.61 1,191.64 2,144.95 893.73	735.38
33 14 13 13-0192	EA	42" x 36" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	13,569.77 1,241.66 2,234.98 931.24	761.12
33 14 13 13-0193	EA	42" x 42" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	14,344.50 1,316.95 2,370.51 987.71	775.51
33 14 13 13-0194	EA	48" x 12" Mechanical Joint Ductile Iron Tee..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	11,605.71 1,068.36 1,923.05 801.27	608.58

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0195 EA 48" x 14" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	11,813.46 1,087.64 1,957.75 815.73	618.45
33 14 13 13-0196 EA 48" x 16" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	12,107.63 1,114.95 2,006.92 836.21	632.35
33 14 13 13-0197 EA 48" x 18" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	12,415.08 1,142.16 2,055.88 856.62	655.72
33 14 13 13-0198 EA 48" x 20" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	12,758.49 1,169.47 2,105.04 877.10	702.10
33 14 13 13-0199 EA 48" x 24" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	12,864.97 1,173.11 2,111.60 879.83	748.35
33 14 13 13-0200 EA 48" x 30" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	15,612.72 1,442.91 2,597.23 1,082.18	781.23
33 14 13 13-0201 EA 48" x 36" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	17,772.37 1,654.97 2,978.95 1,241.23	806.96
33 14 13 13-0202 EA 48" x 42" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	18,633.87 1,738.94 3,130.09 1,304.21	821.34
33 14 13 13-0203 EA 48" x 48" Mechanical Joint Ductile Iron Tee..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	18,948.14 1,766.90 3,180.41 1,325.17	844.30
33 14 13 13-0204 Mechanical Joint Ductile Iron Wye (Laterals) (33 14 13 13-0002)		
33 14 13 13-0205 EA 4" x 3" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	177.70 9.10 16.39 6.83	57.19
33 14 13 13-0206 EA 4" x 4" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	261.51 17.03 30.65 12.77	60.20
33 14 13 13-0207 EA 6" x 3" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	258.49 14.35 25.83 10.76	75.88



	Utilities	33
	Water Utilities	33 10
	Water Utility Transmission and Distribution	33 14

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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0208	EA	6" x 4" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	295.35 17.57 31.62 13.17	79.01
33 14 13 13-0209	EA	6" x 6" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	391.01 25.71 46.27 19.28	88.40
33 14 13 13-0210	EA	8" x 4" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	493.23 35.45 63.81 26.59	91.57
33 14 13 13-0211	EA	8" x 6" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	449.66 29.67 53.40 22.25	100.97
33 14 13 13-0212	EA	8" x 8" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	537.35 37.49 67.47 28.11	107.25
33 14 13 13-0213	EA	10" x 4" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	746.03 59.66 107.38 44.74	98.64
33 14 13 13-0214	EA	10" x 6" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	790.64 62.76 112.97 47.07	107.59
33 14 13 13-0215	EA	10" x 8" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	904.65 73.26 131.87 54.94	113.56
33 14 13 13-0216	EA	10" x 10" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,015.13 83.43 150.18 62.58	119.32
33 14 13 13-0217	EA	12" x 4" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	946.18 77.87 140.16 58.40	110.58
33 14 13 13-0218	EA	12" x 6" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,067.90 88.68 159.63 66.51	119.52
33 14 13 13-0219	EA	12" x 8" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,279.38 108.93 196.07 81.69	125.49

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0220	EA	12" x 10" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,317.04 111.82 201.27 83.86	131.25
33 14 13 13-0221	EA	12" x 12" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,200.75 99.29 178.71 74.46	137.21
33 14 13 13-0222	EA	14" x 6" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,406.28 119.53 215.15 89.65	139.26
33 14 13 13-0223	EA	14" x 8" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,603.83 138.38 249.08 103.78	145.24
33 14 13 13-0224	EA	14" x 10" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,078.47 184.97 332.94 138.73	150.99
33 14 13 13-0225	EA	14" x 12" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,224.60 198.68 357.62 149.01	156.96
33 14 13 13-0226	EA	14" x 14" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,179.58 192.68 346.82 144.51	166.84
33 14 13 13-0227	EA	16" x 6" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,454.81 120.17 216.31 90.13	167.04
33 14 13 13-0228	EA	16" x 8" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,596.67 133.45 240.21 100.09	173.02
33 14 13 13-0229	EA	16" x 10" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,872.08 160.12 288.22 120.09	178.78
33 14 13 13-0230	EA	16" x 12" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,087.84 180.79 325.43 135.59	184.75
33 14 13 13-0231	EA	16" x 14" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,597.62 230.27 414.49 172.71	194.62



	MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13	13-0232	EA		16" x 16" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,513.69 219.78 395.60 164.83	208.51
33 14 13	13-0233	EA		18" x 6" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,270.00 194.61 350.29 145.96	213.79
33 14 13	13-0234	EA		18" x 8" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,439.71 210.67 379.21 158.01	219.76
33 14 13	13-0235	EA		18" x 10" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,603.74 226.20 407.17 169.65	225.52
33 14 13	13-0236	EA		18" x 12" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,782.00 243.13 437.63 182.34	231.48
33 14 13	13-0237	EA		18" x 14" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,816.24 245.05 441.10 183.79	241.35
33 14 13	13-0238	EA		18" x 16" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,850.13 246.34 443.41 184.75	255.25
33 14 13	13-0239	EA		18" x 18" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,626.35 220.42 396.76 165.32	278.62
33 14 13	13-0240	EA		20" x 6" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,715.83 225.13 405.24 168.85	306.57
33 14 13	13-0241	EA		20" x 8" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,775.21 230.17 414.30 172.62	312.54
33 14 13	13-0242	EA		20" x 10" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	3,036.71 255.44 459.80 191.58	318.31
33 14 13	13-0243	EA		20" x 12" Mechanical Joint Ductile Iron Wye (Lateral)..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	3,296.37 280.51 504.91 210.38	324.27

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0244 EA 20" x 14" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,332.75 282.65 508.76 211.99	334.14
33 14 13 13-0245 EA 20" x 16" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,376.30 284.90 512.81 213.67	348.03
33 14 13 13-0246 EA 20" x 18" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,897.96 333.52 600.34 250.14	371.40
33 14 13 13-0247 EA 20" x 20" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,721.91 308.89 556.00 231.67	417.79
33 14 13 13-0248 EA 24" x 6" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,313.31 270.87 487.56 203.15	399.08
33 14 13 13-0249 EA 24" x 8" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,356.63 274.29 493.73 205.72	405.04
33 14 13 13-0250 EA 24" x 10" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,719.88 309.75 557.54 232.31	410.80
33 14 13 13-0251 EA 24" x 12" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,887.42 325.60 586.07 244.20	416.77
33 14 13 13-0252 EA 24" x 14" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,463.61 381.72 687.09 286.29	426.64
33 14 13 13-0253 EA 24" x 16" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,944.13 427.67 769.80 320.75	440.52
33 14 13 13-0254 EA 24" x 18" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	5,519.35 481.65 866.96 361.24	463.91
33 14 13 13-0255 EA 24" x 20" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,064.12 529.09 952.37 396.82	510.29



	Utilities	33
	Water Utilities	33 10
	Water Utility Transmission and Distribution	33 14

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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0256	EA	24" x 24" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	5,427.30 458.41 825.13 343.80	556.54
33 14 13 13-0257	EA	30" x 6" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,679.57 597.53 1,075.56 448.15	464.79
33 14 13 13-0258	EA	30" x 8" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	7,466.20 675.29 1,215.52 506.47	470.77
33 14 13 13-0259	EA	30" x 10" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	7,890.49 716.85 1,290.32 537.64	476.53
33 14 13 13-0260	EA	30" x 12" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	8,315.09 758.40 1,365.13 568.80	482.50
33 14 13 13-0261	EA	30" x 14" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	8,918.06 817.20 1,470.97 612.90	492.38
33 14 13 13-0262	EA	30" x 16" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	9,568.87 880.18 1,584.33 660.14	506.26
33 14 13 13-0263	EA	30" x 18" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	9,815.27 901.28 1,622.30 675.96	529.63
33 14 13 13-0264	EA	30" x 20" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	10,180.11 930.73 1,675.32 698.05	576.03
33 14 13 13-0265	EA	30" x 24" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	10,675.38 973.25 1,751.86 729.94	622.28
33 14 13 13-0266	EA	30" x 30" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	11,561.66 1,056.90 1,902.42 792.68	655.14
33 14 13 13-0267	EA	36" x 12" Mechanical Joint Ductile Iron Wye (Lateral) For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	12,602.26 1,179.32 2,122.78 884.49	533.97

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0268 EA 36" x 14" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	13,091.70 1,226.77 2,208.18 920.08	543.84
33 14 13 13-0269 EA 36" x 16" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	13,580.79 1,273.57 2,292.43 955.18	557.73
33 14 13 13-0270 EA 36" x 18" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	14,523.37 1,364.29 2,455.72 1,023.22	581.10
33 14 13 13-0271 EA 36" x 20" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	15,504.04 1,455.33 2,619.59 1,091.50	627.49
33 14 13 13-0272 EA 36" x 24" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	17,188.17 1,616.74 2,910.12 1,212.55	673.74
33 14 13 13-0273 EA 36" x 30" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	19,233.32 1,816.27 3,269.29 1,362.20	706.61
33 14 13 13-0274 EA 36" x 36" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	22,904.20 2,179.46 3,923.03 1,634.59	732.35
33 14 13 13-0275 EA 42" x 20" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	20,159.53 1,916.52 3,449.73 1,437.39	656.27
33 14 13 13-0276 EA 42" x 24" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	20,676.22 1,961.18 3,530.13 1,470.89	702.52
33 14 13 13-0277 EA 42" x 30" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	22,079.83 2,096.56 3,773.81 1,572.42	735.38
33 14 13 13-0278 EA 42" x 36" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	25,214.11 2,406.09 4,330.96 1,804.57	761.12
33 14 13 13-0279 EA 42" x 42" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	29,685.00 2,851.00 5,131.80 2,138.25	775.49



	Utilities	33
	Water Utilities	33 10
	Water Utility Transmission and Distribution	33 14

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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0280 EA 48" x 20" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	19,911.96 1,884.82 3,392.67 1,413.61	702.10
33 14 13 13-0281 EA 48" x 24" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	22,531.11 2,139.72 3,851.50 1,604.79	748.35
33 14 13 13-0282 EA 48" x 30" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	24,006.46 2,282.28 4,108.10 1,711.71	781.23
33 14 13 13-0283 EA 48" x 36" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	27,328.19 2,610.55 4,699.00 1,957.91	806.96
33 14 13 13-0284 EA 48" x 42" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	35,629.13 3,438.47 6,189.24 2,578.85	821.34
33 14 13 13-0285 EA 48" x 48" Mechanical Joint Ductile Iron Wye (Lateral)..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	39,091.19 3,781.20 6,806.16 2,835.90	844.27
33 14 13 13-0286 Mechanical Joint Ductile Iron Cross (33 14 13 13-0002)		
33 14 13 13-0287 EA 3" x 3" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	241.53 13.82 24.87 10.36	68.23
33 14 13 13-0288 EA 4" x 3" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	289.21 17.67 31.81 13.25	74.24
33 14 13 13-0289 EA 4" x 4" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	337.88 22.39 40.29 16.79	75.25
33 14 13 13-0290 EA 6" x 3" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	404.48 26.35 47.43 19.76	93.02
33 14 13 13-0291 EA 6" x 4" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	396.22 24.42 43.96 18.32	100.33
33 14 13 13-0292 EA 6" x 6" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	464.22 27.42 49.35 20.56	125.41

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0293 EA 8" x 4" Mechanical Joint Ductile Iron Cross.....	409.43	109.75
For Cement Mortar Lining (CML), Add	24.31	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	43.76	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	18.23	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0294 EA 8" x 6" Mechanical Joint Ductile Iron Cross.....	488.12	134.83
For Cement Mortar Lining (CML), Add	28.38	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	51.09	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	21.29	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0295 EA 8" x 8" Mechanical Joint Ductile Iron Cross.....	517.37	144.23
For Cement Mortar Lining (CML), Add	29.88	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	53.79	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	22.41	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0296 EA 10" x 4" Mechanical Joint Ductile Iron Cross.....	491.82	115.37
For Cement Mortar Lining (CML), Add	31.70	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	57.07	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	23.78	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0297 EA 10" x 6" Mechanical Joint Ductile Iron Cross.....	566.54	139.23
For Cement Mortar Lining (CML), Add	35.56	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	64.01	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	26.67	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0298 EA 10" x 8" Mechanical Joint Ductile Iron Cross.....	665.78	148.19
For Cement Mortar Lining (CML), Add	44.13	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	79.43	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	33.10	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0299 EA 10" x 10" Mechanical Joint Ductile Iron Cross.....	719.85	159.10
For Cement Mortar Lining (CML), Add	47.88	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	86.18	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	35.91	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0300 EA 12 x 4" Mechanical Joint Ductile Iron Cross.....	590.40	125.29
For Cement Mortar Lining (CML), Add	40.06	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	72.10	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	30.04	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0301 EA 12" x 6" Mechanical Joint Ductile Iron Cross.....	687.61	149.15
For Cement Mortar Lining (CML), Add	46.16	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	83.09	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	34.62	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0302 EA 12" x 8" Mechanical Joint Ductile Iron Cross.....	967.86	158.11
For Cement Mortar Lining (CML), Add	72.83	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	131.10	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	54.62	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0303 EA 12" x 10" Mechanical Joint Ductile Iron Cross.....	984.45	169.06
For Cement Mortar Lining (CML), Add	72.83	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	131.10	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	54.62	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0304 EA 12" x 12" Mechanical Joint Ductile Iron Cross.....	1,111.95	178.98
For Cement Mortar Lining (CML), Add	84.08	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	151.34	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	63.06	
Note: ANSI/AWWA C151/A21.51		



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	Water Utilities	33 10
	Water Utility Transmission and Distribution	33 14

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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0305 EA 14" x 6" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,131.12 88.25 158.86 66.19	164.06
33 14 13 13-0306 EA 14" x 8" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,322.48 106.03 190.86 79.52	173.02
33 14 13 13-0307 EA 14" x 10" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,360.49 108.18 194.72 81.13	183.97
33 14 13 13-0308 EA 14" x 12" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,435.51 114.17 205.51 85.63	193.89
33 14 13 13-0309 EA 14" x 14" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,585.55 126.92 228.45 95.19	208.81
33 14 13 13-0310 EA 16" x 6" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,292.33 101.21 182.18 75.91	184.93
33 14 13 13-0311 EA 16" x 8" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,463.34 116.96 210.52 87.72	193.89
33 14 13 13-0312 EA 16" x 10" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,739.74 142.94 257.29 107.21	204.83
33 14 13 13-0313 EA 16" x 12" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,933.02 160.76 289.37 120.57	214.76
33 14 13 13-0314 EA 16" x 14" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,321.92 197.39 355.31 148.04	229.67
33 14 13 13-0315 EA 16" x 16" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,710.18 233.06 419.50 174.79	250.57
33 14 13 13-0316 EA 18" x 6" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,099.61 176.83 318.29 132.62	218.67

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0317 EA 18" x 8" Mechanical Joint Ductile Iron Cross.....	2,218.15	227.63
For Cement Mortar Lining (CML), Add	187.33	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	337.19	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	140.49	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0318 EA 18" x 10" Mechanical Joint Ductile Iron Cross.....	2,322.55	238.58
For Cement Mortar Lining (CML), Add	196.11	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	352.99	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	147.08	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0319 EA 18" x 12" Mechanical Joint Ductile Iron Cross.....	2,513.24	248.50
For Cement Mortar Lining (CML), Add	213.67	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	384.61	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	160.25	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0320 EA 18" x 14" Mechanical Joint Ductile Iron Cross.....	2,920.34	263.41
For Cement Mortar Lining (CML), Add	252.12	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	453.82	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	189.09	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0321 EA 18" x 16" Mechanical Joint Ductile Iron Cross.....	3,110.47	284.27
For Cement Mortar Lining (CML), Add	267.97	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	482.35	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	200.98	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0322 EA 18" x 18" Mechanical Joint Ductile Iron Cross.....	3,266.56	318.01
For Cement Mortar Lining (CML), Add	278.47	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	501.25	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	208.85	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0323 EA 20" x 6" Mechanical Joint Ductile Iron Cross.....	2,639.20	274.37
For Cement Mortar Lining (CML), Add	222.35	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	400.23	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	166.76	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0324 EA 20" x 8" Mechanical Joint Ductile Iron Cross.....	2,758.80	283.33
For Cement Mortar Lining (CML), Add	232.95	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	419.31	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	174.71	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0325 EA 20" x 10" Mechanical Joint Ductile Iron Cross.....	2,845.00	294.27
For Cement Mortar Lining (CML), Add	239.91	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	431.84	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	179.93	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0326 EA 20" x 12" Mechanical Joint Ductile Iron Cross.....	3,034.63	304.20
For Cement Mortar Lining (CML), Add	257.37	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	463.27	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	193.03	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0327 EA 20" x 14" Mechanical Joint Ductile Iron Cross.....	3,092.55	319.12
For Cement Mortar Lining (CML), Add	260.91	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	469.63	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	195.68	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0328 EA 20" x 16" Mechanical Joint Ductile Iron Cross.....	3,719.67	339.98
For Cement Mortar Lining (CML), Add	320.46	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	576.82	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	240.34	
Note: ANSI/AWWA C151/A21.51		



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	Water Utilities	33 10
	Water Utility Transmission and Distribution	33 14

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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0329	EA	20" x 18" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	3,875.76 330.95 595.71 248.21	373.72
33 14 13 13-0330	EA	20" x 20" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	4,205.43 355.48 639.86 266.61	429.88
33 14 13 13-0331	EA	24" x 6" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	3,584.29 306.43 551.57 229.82	343.23
33 14 13 13-0332	EA	24" x 8" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	3,668.81 313.49 564.29 235.12	352.18
33 14 13 13-0333	EA	24" x 10" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	3,807.22 325.70 586.27 244.28	363.12
33 14 13 13-0334	EA	24" x 12" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	3,927.23 336.20 605.16 252.15	373.06
33 14 13 13-0335	EA	24" x 14" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	4,002.30 341.45 614.61 256.09	387.96
33 14 13 13-0336	EA	24" x 16" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	4,157.09 353.77 636.78 265.32	408.84
33 14 13 13-0337	EA	24" x 18" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	5,451.68 478.11 860.60 358.58	442.57
33 14 13 13-0338	EA	24" x 20" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	5,763.14 500.82 901.47 375.61	498.28
33 14 13 13-0339	EA	24" x 24" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	6,358.00 549.87 989.77 412.40	567.15
33 14 13 13-0340	EA	30" x 8" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	6,765.33 607.39 1,093.30 455.54	456.36

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0341 EA 30" x 10" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,900.79 619.28 1,114.70 464.46	467.31
33 14 13 13-0342 EA 30" x 12" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	7,033.66 631.06 1,135.90 473.29	477.23
33 14 13 13-0343 EA 30" x 14" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	7,192.26 644.66 1,160.39 483.49	492.15
33 14 13 13-0344 EA 30" x 16" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	7,375.97 659.87 1,187.76 494.90	513.01
33 14 13 13-0345 EA 30" x 18" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	7,596.33 676.79 1,218.22 507.59	546.76
33 14 13 13-0346 EA 30" x 20" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	7,883.14 697.03 1,254.66 522.77	602.46
33 14 13 13-0347 EA 30" x 24" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	10,087.78 907.06 1,632.72 680.30	671.31
33 14 13 13-0348 EA 30" x 30" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	11,601.56 1,042.66 1,876.78 781.99	775.51
33 14 13 13-0349 EA 36" x 8" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	9,379.02 862.94 1,553.29 647.20	494.78
33 14 13 13-0350 EA 36" x 10" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	9,513.41 874.72 1,574.49 656.04	505.71
33 14 13 13-0351 EA 36" x 12" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	9,629.14 884.79 1,592.61 663.59	515.65
33 14 13 13-0352 EA 36" x 14" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	9,769.54 896.57 1,613.82 672.43	530.55



	Utilities	33
	Water Utilities	33 10
	Water Utility Transmission and Distribution	33 14

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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0353	EA	36" x 16" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	9,936.11 910.06 1,638.11 682.55	551.42
33 14 13 13-0354	EA	36" x 18" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	10,138.25 925.16 1,665.30 693.87	585.16
33 14 13 13-0355	EA	36" x 20" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	10,407.94 943.69 1,698.65 707.77	640.86
33 14 13 13-0356	EA	36" x 24" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	10,865.71 979.04 1,762.27 734.28	709.72
33 14 13 13-0357	EA	36" x 30" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	14,572.98 1,333.98 2,401.16 1,000.49	813.90
33 14 13 13-0358	EA	36" x 36" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	15,993.54 1,470.22 2,646.39 1,102.66	852.34
33 14 13 13-0359	EA	42" x 12" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	12,533.18 1,171.83 2,109.29 878.87	537.85
33 14 13 13-0360	EA	42" x 14" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	14,147.06 1,330.96 2,395.72 998.22	552.77
33 14 13 13-0361	EA	42" x 16" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	12,828.37 1,195.92 2,152.66 896.94	573.63
33 14 13 13-0362	EA	42" x 18" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	13,009.09 1,208.88 2,175.99 906.66	607.37
33 14 13 13-0363	EA	42" x 20" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	13,270.21 1,226.56 2,207.80 919.92	663.07
33 14 13 13-0364	EA	42" x 24" Mechanical Joint Ductile Iron Cross..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	13,696.90 1,258.79 2,265.83 944.09	731.92

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0365 EA 42" x 30" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	17,492.00 1,622.52 2,920.53 1,216.89	836.11
33 14 13 13-0366 EA 42" x 36" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	22,750.09 2,142.51 3,856.51 1,606.88	874.51
33 14 13 13-0367 EA 42" x 42" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	24,360.32 2,300.17 4,140.30 1,725.12	896.73
33 14 13 13-0368 EA 48" x 12" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	16,900.58 1,595.21 2,871.37 1,196.41	626.01
33 14 13 13-0369 EA 48" x 14" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	17,019.56 1,604.85 2,888.72 1,203.63	640.93
33 14 13 13-0370 EA 48" x 16" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	17,179.71 1,617.70 2,911.86 1,213.27	661.79
33 14 13 13-0371 EA 48" x 18" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	17,359.35 1,630.55 2,934.99 1,222.91	695.54
33 14 13 13-0372 EA 48" x 20" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	17,605.48 1,646.72 2,964.10 1,235.04	751.23
33 14 13 13-0373 EA 48" x 24" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	18,015.04 1,677.25 3,019.05 1,257.94	820.08
33 14 13 13-0374 EA 48" x 30" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	19,090.79 1,769.04 3,184.27 1,326.78	924.27
33 14 13 13-0375 EA 48" x 36" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	23,317.46 2,185.89 3,934.59 1,639.41	962.67
33 14 13 13-0376 EA 48" x 42" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	29,870.53 2,837.83 5,108.09 2,128.37	984.88



Utilities	33	CS
Water Utilities	33 10	
Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0377 EA 48" x 48" Mechanical Joint Ductile Iron Cross..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	31,822.73 3,019.69 5,435.44 2,264.77	1,073.00
33 14 13 13-0378 Mechanical Joint x Mechanical Joint Ductile Iron Reducers <small>(33 14 13 13-0002)</small>		
33 14 13 13-0379 EA 4" x 3" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	118.37 6.21 11.18 4.66	37.12
33 14 13 13-0380 EA 6" x 3" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	139.05 6.86 12.34 5.14	46.53
33 14 13 13-0381 EA 6" x 4" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	150.03 7.50 13.49 5.62	49.54
33 14 13 13-0382 EA 8" x 4" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	187.47 10.28 18.51 7.71	55.82
33 14 13 13-0383 EA 8" x 6" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	208.07 10.93 19.67 8.19	65.21
33 14 13 13-0384 EA 10" x 4" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	223.08 13.39 24.10 10.04	58.87
33 14 13 13-0385 EA 10" x 6" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	244.12 14.14 25.45 10.60	67.82
33 14 13 13-0386 EA 10" x 8" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	267.09 15.53 27.95 11.65	73.78
33 14 13 13-0387 EA 12" x 4" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	267.44 16.92 30.46 12.69	64.83
33 14 13 13-0388 EA 12" x 6" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	298.14 18.64 33.54 13.98	73.78
33 14 13 13-0389 EA 12" x 8" Mechanical Joint x Mechanical Joint Ductile Iron Reducer..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	312.55 19.17 34.51 14.38	79.75

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0390 EA 12" x 10" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	341.63	85.51
For Cement Mortar Lining (CML), Add	21.21	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	38.17	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	15.91	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0391 EA 14" x 6" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	540.16	83.65
For Cement Mortar Lining (CML), Add	41.34	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	74.42	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	31.01	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0392 EA 14" x 8" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	527.79	89.63
For Cement Mortar Lining (CML), Add	39.20	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	70.56	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	29.40	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0393 EA 14" x 10" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	478.69	95.39
For Cement Mortar Lining (CML), Add	33.42	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	60.15	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	25.06	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0394 EA 14" x 12" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	503.79	101.36
For Cement Mortar Lining (CML), Add	35.02	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	63.04	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	26.27	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0395 EA 16" x 6" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	634.04	97.54
For Cement Mortar Lining (CML), Add	48.63	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	87.53	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	36.47	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0396 EA 16" x 8" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	624.87	103.51
For Cement Mortar Lining (CML), Add	46.80	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	84.25	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	35.10	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0397 EA 16" x 10" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	616.48	109.28
For Cement Mortar Lining (CML), Add	45.09	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	81.16	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	33.82	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0398 EA 16" x 12" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	667.29	115.25
For Cement Mortar Lining (CML), Add	49.27	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	88.68	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	36.95	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0399 EA 16" x 14" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	741.16	125.12
For Cement Mortar Lining (CML), Add	55.16	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	99.29	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	41.37	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0400 EA 18" x 8" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	793.10	126.88
For Cement Mortar Lining (CML), Add	60.09	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	108.15	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	45.06	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0401 EA 18" x 10" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	885.37	132.65
For Cement Mortar Lining (CML), Add	68.44	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	123.19	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	51.33	
Note: ANSI/AWWA C151/A21.51		



	MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13	13-0402	EA		18" x 12" Mechanical Joint x Mechanical Joint Ductile Iron Reducer <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	858.00 64.80 116.64 48.60	138.61
33 14 13	13-0403	EA		18" x 14" Mechanical Joint x Mechanical Joint Ductile Iron Reducer <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	910.45 68.55 123.38 51.41	148.48
33 14 13	13-0404	EA		18" x 16" Mechanical Joint x Mechanical Joint Ductile Iron Reducer <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	961.47 71.55 128.78 53.66	162.38
33 14 13	13-0405	EA		20" x 8" Mechanical Joint x Mechanical Joint Ductile Iron Reducer <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,117.23 85.47 153.84 64.10	173.28
33 14 13	13-0406	EA		20" x 10" Mechanical Joint x Mechanical Joint Ductile Iron Reducer <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,076.69 80.54 144.98 60.41	179.04
33 14 13	13-0407	EA		20" x 12" Mechanical Joint x Mechanical Joint Ductile Iron Reducer <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,001.12 72.08 129.75 54.06	185.01
33 14 13	13-0408	EA		20" x 14" Mechanical Joint x Mechanical Joint Ductile Iron Reducer <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,010.72 71.55 128.78 53.66	194.88
33 14 13	13-0409	EA		20" x 16" Mechanical Joint x Mechanical Joint Ductile Iron Reducer <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,046.76 73.05 131.48 54.78	208.77
33 14 13	13-0410	EA		20" x 18" Mechanical Joint x Mechanical Joint Ductile Iron Reducer <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,248.18 89.65 161.36 67.23	232.14
33 14 13	13-0411	EA		24" x 12" Mechanical Joint x Mechanical Joint Ductile Iron Reducer <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,454.62 110.42 198.76 82.82	231.25
33 14 13	13-0412	EA		24" x 14" Mechanical Joint x Mechanical Joint Ductile Iron Reducer <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,497.43 113.21 203.78 84.91	241.14
33 14 13	13-0413	EA		24" x 16" Mechanical Joint x Mechanical Joint Ductile Iron Reducer <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,533.47 114.71 206.47 86.03	255.02

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0414	EA	24" x 18" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	1,518.54	278.39
		For Cement Mortar Lining (CML), Add	109.67	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	197.41	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	82.26	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0415	EA	24" x 20" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	1,850.17	324.79
		For Cement Mortar Lining (CML), Add	135.81	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	244.45	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	101.86	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0416	EA	30" x 16" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	2,926.36	287.88
		For Cement Mortar Lining (CML), Add	249.02	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	448.23	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	186.76	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0417	EA	30" x 18" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	3,060.30	311.25
		For Cement Mortar Lining (CML), Add	258.87	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	465.97	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	194.15	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0418	EA	30" x 20" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	2,987.07	357.64
		For Cement Mortar Lining (CML), Add	244.52	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	440.13	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	183.39	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0419	EA	30" x 24" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	2,940.40	403.90
		For Cement Mortar Lining (CML), Add	232.84	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	419.12	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	174.63	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0420	EA	36" x 20" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	4,369.15	383.38
		For Cement Mortar Lining (CML), Add	378.83	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	681.89	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	284.12	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0421	EA	36" x 24" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	3,658.43	429.62
		For Cement Mortar Lining (CML), Add	300.75	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	541.35	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	225.56	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0422	EA	36" x 30" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	3,971.71	462.50
		For Cement Mortar Lining (CML), Add	327.10	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	588.77	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	245.32	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0423	EA	42" x 16" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	5,612.27	328.00
		For Cement Mortar Lining (CML), Add	511.53	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	920.75	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	383.65	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0424	EA	42" x 18" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	5,600.54	351.37
		For Cement Mortar Lining (CML), Add	506.82	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	912.27	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	380.11	
		Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0425	EA	42" x 20" Mechanical Joint x Mechanical Joint Ductile Iron Reducer	5,653.69	397.76
		For Cement Mortar Lining (CML), Add	505.10	
		Note: ANSI/AWWA C104/A21.4		
		For Fusion Bonded Epoxy Lining (206N), Add	909.18	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	378.83	
		Note: ANSI/AWWA C151/A21.51		



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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0426 EA 42" x 24" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,309.62 563.69 1,014.64 422.77	444.01
33 14 13 13-0427 EA 42" x 30" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	5,247.68 452.51 814.53 339.39	476.88
33 14 13 13-0428 EA 42" x 36" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	5,494.46 473.29 851.93 354.97	502.61
33 14 13 13-0429 EA 48" x 16" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	7,525.59 699.39 1,258.90 524.54	350.92
33 14 13 13-0430 EA 48" x 18" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	7,310.37 674.33 1,213.79 505.75	374.29
33 14 13 13-0431 EA 48" x 20" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,995.09 635.77 1,144.38 476.83	420.68
33 14 13 13-0432 EA 48" x 24" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	7,226.90 651.94 1,173.50 488.96	466.93
33 14 13 13-0433 EA 48" x 30" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	8,612.29 785.50 1,413.90 589.13	499.80
33 14 13 13-0434 EA 48" x 36" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	7,579.17 678.29 1,220.92 508.72	525.54
33 14 13 13-0435 EA 48" x 42" Mechanical Joint x Mechanical Joint Ductile Iron Reducer For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	8,305.70 748.76 1,347.78 561.57	539.92
33 14 13 13-0436 Mechanical Joint Ductile Iron Caps (33 14 13 13-0002)		
33 14 13 13-0437 EA 3" Mechanical Joint Ductile Iron Caps..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	146.61 2.79 5.01 2.09	78.39
33 14 13 13-0438 EA 4" Mechanical Joint Ductile Iron Caps..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	168.27 2.89 5.21 2.17	91.98

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0439 EA 6" Mechanical Joint Ductile Iron Caps.....	225.60	114.97
For Cement Mortar Lining (CML), Add	5.14	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	9.25	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	3.86	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0440 EA 8" Mechanical Joint Ductile Iron Caps.....	284.75	131.40
For Cement Mortar Lining (CML), Add	8.57	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	15.42	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	6.43	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0441 EA 10" Mechanical Joint Ductile Iron Caps.....	409.50	198.87
For Cement Mortar Lining (CML), Add	10.82	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	19.47	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	8.11	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0442 EA 12" Mechanical Joint Ductile Iron Caps.....	490.44	216.95
For Cement Mortar Lining (CML), Add	16.17	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	29.11	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	12.13	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0443 EA 14" Mechanical Joint Ductile Iron Caps.....	606.85	238.64
For Cement Mortar Lining (CML), Add	24.53	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	44.15	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	18.40	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0444 EA 16" Mechanical Joint Ductile Iron Caps.....	730.57	265.14
For Cement Mortar Lining (CML), Add	32.88	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	59.19	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	24.66	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0445 EA 18" Mechanical Joint Ductile Iron Caps.....	853.62	298.30
For Cement Mortar Lining (CML), Add	40.16	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	72.30	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	30.12	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0446 EA 20" Mechanical Joint Ductile Iron Caps.....	1,036.00	340.89
For Cement Mortar Lining (CML), Add	51.95	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	93.50	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	38.96	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0447 EA 24" Mechanical Joint Ductile Iron Caps.....	1,315.95	397.74
For Cement Mortar Lining (CML), Add	71.33	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	128.40	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	53.50	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0448 EA 30" Mechanical Joint Ductile Iron Caps.....	2,354.36	477.29
For Cement Mortar Lining (CML), Add	163.12	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	293.61	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	122.34	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0449 EA 36" Mechanical Joint Ductile Iron Caps.....	3,870.74	596.61
For Cement Mortar Lining (CML), Add	296.68	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	534.02	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	222.51	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0450 EA 42" Mechanical Joint Ductile Iron Caps.....	5,584.19	715.94
For Cement Mortar Lining (CML), Add	449.94	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	809.90	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	337.46	
Note: ANSI/AWWA C151/A21.51		



	Utilities	33	
	Water Utilities	33 10	33
	Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0451 EA 48" Mechanical Joint Ductile Iron Caps..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,626.88 542.16 975.89 406.62	795.49
33 14 13 13-0452 Mechanical Joint Ductile Iron Plug (33 14 13 13-0002)		
33 14 13 13-0453 EA 3" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	150.89 3.21 5.78 2.41	78.39
33 14 13 13-0454 EA 4" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	174.69 3.53 6.36 2.65	91.98
33 14 13 13-0455 EA 6" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	242.74 6.86 12.34 5.14	114.97
33 14 13 13-0456 EA 8" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	301.89 10.28 18.51 7.71	131.40
33 14 13 13-0457 EA 10" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	479.11 17.78 32.00 13.33	198.87
33 14 13 13-0458 EA 12" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	509.72 18.10 32.58 13.58	216.95
33 14 13 13-0459 EA 14" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	730.02 36.84 66.32 27.63	238.64
33 14 13 13-0460 EA 16" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	448.89 4.71 8.48 3.53	265.14
33 14 13 13-0461 EA 18" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,036.77 58.48 105.26 43.86	298.30
33 14 13 13-0462 EA 20" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,285.56 76.90 138.42 57.68	340.89
33 14 13 13-0463 EA 24" Mechanical Joint Ductile Iron Plug..... For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,669.40 106.68 192.02 80.01	397.74

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0464	EA	30" Mechanical Joint Ductile Iron Plug..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,840.62 211.75 381.14 158.81	477.29
33 14 13 13-0465	EA	36" Mechanical Joint Ductile Iron Plug..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	4,174.92 327.10 588.77 245.32	596.61
33 14 13 13-0466	EA	42" Mechanical Joint Ductile Iron Plug..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	5,622.75 453.80 816.84 340.35	715.94
33 14 13 13-0467	EA	48" Mechanical Joint Ductile Iron Plug..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	7,254.51 604.92 1,088.86 453.69	795.49
33 14 13 13-0468		Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters <small>(33 14 13 13-0002)</small>		
33 14 13 13-0469	EA	3" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	250.14 6.96 12.53 5.22	119.14
33 14 13 13-0470	EA	4" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	284.00 7.50 13.49 5.62	137.96
33 14 13 13-0471	EA	6" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	365.17 10.39 18.70 7.79	172.45
33 14 13 13-0472	EA	8" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	456.05 15.74 28.34 11.81	197.06
33 14 13 13-0473	EA	10" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	726.17 27.42 49.35 20.56	298.30
33 14 13 13-0474	EA	12" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	844.37 35.13 63.23 26.35	325.43
33 14 13 13-0475	EA	14" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,100.39 55.80 100.44 41.85	357.97
33 14 13 13-0476	EA	16" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,239.91 63.73 114.71 47.80	397.74



Utilities	33	CS
Water Utilities	33 10	
Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0477 EA 18" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,652.62 97.47 175.44 73.10	447.46
33 14 13 13-0478 EA 20" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,935.83 116.10 208.98 87.08	511.37
33 14 13 13-0479 EA 24" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,333.80 142.98 257.37 107.24	596.61
33 14 13 13-0480 EA 30" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,716.30 263.16 473.68 197.37	715.94
33 14 13 13-0481 EA 36" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	5,127.07 377.11 678.80 282.83	894.92
33 14 13 13-0482 EA 42" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,807.38 525.77 946.39 394.33	1,022.74
33 14 13 13-0483 EA 48" Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	8,392.67 658.48 1,185.26 493.86	1,193.23
33 14 13 13-0484 Mechanical Joint Ductile Iron Long Sleeves (33 14 13 13-0002)		
33 14 13 13-0485 EA 3" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	239.43 5.89 10.60 4.42	119.14
33 14 13 13-0486 EA 4" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	278.65 6.96 12.53 5.22	137.96
33 14 13 13-0487 EA 6" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	378.02 11.67 21.01 8.76	172.45
33 14 13 13-0488 EA 8" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	490.33 19.17 34.51 14.38	197.06
33 14 13 13-0489 EA 10" Mechanical Joint Ductile Iron Long Sleeves For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	680.11 22.81 41.06 17.11	298.30

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0490 EA 12" Mechanical Joint Ductile Iron Long Sleeves	801.53	325.43
For Cement Mortar Lining (CML), Add	30.85	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	55.52	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	23.13	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0491 EA 14" Mechanical Joint Ductile Iron Long Sleeves	1,008.28	357.97
For Cement Mortar Lining (CML), Add	46.59	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	83.86	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	34.94	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0492 EA 16" Mechanical Joint Ductile Iron Long Sleeves	1,192.78	397.74
For Cement Mortar Lining (CML), Add	59.01	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	106.23	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	44.26	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0493 EA 18" Mechanical Joint Ductile Iron Long Sleeves	1,433.05	447.46
For Cement Mortar Lining (CML), Add	75.51	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	135.91	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	56.63	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0494 EA 20" Mechanical Joint Ductile Iron Long Sleeves	1,686.28	511.37
For Cement Mortar Lining (CML), Add	91.15	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	164.06	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	68.36	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0495 EA 24" Mechanical Joint Ductile Iron Long Sleeves	2,104.60	596.61
For Cement Mortar Lining (CML), Add	120.06	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	216.12	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	90.05	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0496 EA 30" Mechanical Joint Ductile Iron Long Sleeves	3,599.55	715.94
For Cement Mortar Lining (CML), Add	251.48	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	452.66	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	188.61	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0497 EA 36" Mechanical Joint Ductile Iron Long Sleeves	4,887.16	894.92
For Cement Mortar Lining (CML), Add	353.12	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	635.62	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	264.84	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0498 EA 42" Mechanical Joint Ductile Iron Long Sleeves	6,271.17	1,021.57
For Cement Mortar Lining (CML), Add	472.33	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	850.19	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	354.25	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0499 EA 48" Mechanical Joint Ductile Iron Long Sleeves	8,443.01	1,193.23
For Cement Mortar Lining (CML), Add	663.51	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	1,194.32	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	497.63	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-0500 Mechanical Joint Ductile Iron Gland Packs (33 14 13 13-0002)		
Note: Includes ductile iron retainer gland, gasket, break off torque bolts and all nuts.		
33 14 13 13-0501 Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts (33 14 13 13-0500)		
Note: Labor installation is included with pipe fittings or valves.		
33 14 13 13-0502 EA 3" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	21.42	
33 14 13 13-0503 EA 4" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	32.96	
Note: Includes four (4) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0504 EA 6" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	39.82	
Note: Includes six (6) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0505 EA 8" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	46.69	
Note: Includes six (6) 3/4" diameter plain finish Boltss with nut.		
33 14 13 13-0506 EA 10" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts	64.54	
Note: Includes eight (8) 3/4" diameter plain finish Boltss with nut.		



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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0507 EA 12" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes eight (8) 3/4" diameter plain finish Boltss with nut.	68.66	
33 14 13 13-0508 EA 14" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes ten (10) 3/4" diameter plain finish Boltss with nut.	112.60	
33 14 13 13-0509 EA 16" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes twelve (12) 3/4" diameter plain finish Boltss with nut.	119.47	
33 14 13 13-0510 EA 18" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes twelve (12) 3/4" diameter plain finish Boltss with nut.	159.29	
33 14 13 13-0511 EA 20" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes fourteen (14) 3/4" diameter plain finish Boltss with nut.	205.98	
33 14 13 13-0512 EA 24" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes sixteen (16) 3/4" diameter plain finish Boltss with nut.	287.00	
33 14 13 13-0513 EA 30" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes twenty (20) 1" diameter plain finish Boltss with nut.	685.23	
33 14 13 13-0514 EA 36" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes twenty-four (24) 1" diameter plain finish Boltss with nut.	1,477.56	
33 14 13 13-0515 EA 42" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes twenty-eight (28) 1-1/4" diameter plain finish Boltss with nut.	2,157.30	
33 14 13 13-0516 EA 48" Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes thirty-two (32) 1-1/4" diameter plain finish Boltss with nut.	2,647.53	
33 14 13 13-0517 Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts <small>(33 14 13 13-0500)</small> Note: Labor installation is included with pipe fittings or valves.		
33 14 13 13-0518 EA 3" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts.....	36.42	
33 14 13 13-0519 EA 4" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts..... Note: Includes four (4) 3/4" diameter plain finish Boltss with nut.	46.69	
33 14 13 13-0520 EA 6" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts..... Note: Includes six (6) 3/4" diameter plain finish Boltss with nut.	59.05	
33 14 13 13-0521 EA 8" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts..... Note: Includes six (6) 3/4" diameter plain finish Boltss with nut.	64.54	
33 14 13 13-0522 EA 10" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts..... Note: Includes eight (8) 3/4" diameter plain finish Boltss with nut.	89.26	
33 14 13 13-0523 EA 12" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts..... Note: Includes eight (8) 3/4" diameter plain finish Boltss with nut.	93.38	
33 14 13 13-0524 EA 14" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts..... Note: Includes ten (10) 3/4" diameter plain finish Boltss with nut.	141.44	
33 14 13 13-0525 EA 16" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts..... Note: Includes twelve (12) 3/4" diameter plain finish Boltss with nut.	155.17	
33 14 13 13-0526 EA 18" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts..... Note: Includes twelve (12) 3/4" diameter plain finish Boltss with nut.	205.98	
33 14 13 13-0527 EA 20" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts..... Note: Includes fourteen (14) 3/4" diameter plain finish Boltss with nut.	266.40	
33 14 13 13-0528 EA 24" Mechanical Joint Gland, Gasket, Star Blue Fluoropolymer Coated T-Head Bolts And Nuts..... Note: Includes sixteen (16) 3/4" diameter plain finish Boltss with nut.	372.14	
33 14 13 13-0529 Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts <small>(33 14 13 13-0500)</small> Note: Labor installation is included with pipe fittings or valves.		
33 14 13 13-0530 EA 3" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts.....	23.56	
33 14 13 13-0531 EA 4" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes four (4) 3/4" diameter plain finish Boltss with nut.	35.70	
33 14 13 13-0532 EA 6" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes six (6) 3/4" diameter plain finish Boltss with nut.	42.57	
33 14 13 13-0533 EA 8" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes six (6) 3/4" diameter plain finish Boltss with nut.	50.81	
33 14 13 13-0534 EA 10" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes eight (8) 3/4" diameter plain finish Boltss with nut.	70.03	
33 14 13 13-0535 EA 12" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes eight (8) 3/4" diameter plain finish Boltss with nut.	74.15	
33 14 13 13-0536 EA 14" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes ten (10) 3/4" diameter plain finish Boltss with nut.	122.21	
33 14 13 13-0537 EA 16" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes twelve (12) 3/4" diameter plain finish Boltss with nut.	129.08	
33 14 13 13-0538 EA 18" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes twelve (12) 3/4" diameter plain finish Boltss with nut.	174.40	
33 14 13 13-0539 EA 20" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes fourteen (14) 3/4" diameter plain finish Boltss with nut.	223.83	
33 14 13 13-0540 EA 24" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes sixteen (16) 3/4" diameter plain finish Boltss with nut.	313.09	
33 14 13 13-0541 EA 30" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes twenty (20) 1" diameter plain finish Boltss with nut.	749.77	
33 14 13 13-0542 EA 36" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes twenty-four (24) 1" diameter plain finish Boltss with nut.	1,661.57	
33 14 13 13-0543 EA 42" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes twenty-eight (28) 1-1/4" diameter plain finish Boltss with nut.	2,405.85	
33 14 13 13-0544 EA 48" Epoxy Coated Mechanical Joint Gland, Gasket, T-Head Bolts And Nuts..... Note: Includes thirty-two (32) 1-1/4" diameter plain finish Boltss with nut.	2,960.62	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0545			Mechanical Joint Restraints With Accessories For Ductile Iron Pipe (MEGALUG® 1100DEC Series) (33 14 13 13-0002) Note: Includes ductile iron retainer gland, gasket, break off torque bolts and all nuts and bolts. Excludes pipe and fitting.		
33 14 13 13-0546	EA		3" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1103DSC).....	153.13	59.76
33 14 13 13-0547	EA		4" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1104DEC).....	175.23	70.79
33 14 13 13-0548	EA		6" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1106DEC).....	217.34	87.61
33 14 13 13-0549	EA		8" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1108DEC).....	269.71	102.23
33 14 13 13-0550	EA		10" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1110DEC).....	390.12	149.15
33 14 13 13-0551	EA		12" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1112DEC).....	478.31	170.49
33 14 13 13-0552	EA		14" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1114DEC).....	554.00	183.50
33 14 13 13-0553	EA		16" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1116DEC).....	677.29	198.87
33 14 13 13-0554	EA		18" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1118DEC).....	865.79	238.64
33 14 13 13-0555	EA		20" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1120DEC).....	1,018.60	265.04
33 14 13 13-0556	EA		24" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1124DEC).....	1,315.17	305.81
33 14 13 13-0557	EA		30" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1130DEC).....	2,508.17	366.74
33 14 13 13-0558	EA		36" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1136DEC).....	3,098.51	458.94
33 14 13 13-0559	EA		42" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1142DEC).....	4,543.60	529.54
33 14 13 13-0560	EA		48" Mechanical Joint Restraints For Ductile Iron Pipe (MEGALUG® 1148DEC).....	5,819.17	681.04
33 14 13 13-0561			Mechanical Joint Ductile Iron Force Balanced Flexible Expansion Joint (FLEX-TEND®) (33 14 13 13-0002)		
33 14 13 13-0562	EA		3" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	3,023.52	48.91
33 14 13 13-0563	EA		4" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	3,150.20	61.14
33 14 13 13-0564	EA		6" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	4,571.27	90.36
33 14 13 13-0565	EA		8" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	6,209.58	107.17
33 14 13 13-0566	EA		10" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	7,824.49	119.05
33 14 13 13-0567	EA		12" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	10,432.54	139.66
33 14 13 13-0568	EA		14" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	12,848.72	156.61
33 14 13 13-0569	EA		16" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	15,199.44	178.98
33 14 13 13-0570	EA		18" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	17,145.31	250.57
33 14 13 13-0571	EA		20" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	23,061.27	313.22
33 14 13 13-0572	EA		24" Mechanical Joint Ductile Iron FLEX-TEND® Force Balanced Flexible Expansion Joint.....	31,950.98	417.63
33 14 13 13-0573			Set Screw Flange Adapter For Ductile Iron Pipe (E-Z Flange 1000DSM Series) (33 14 13 13-0002) Note: Includes machined bolts and gasket.		
33 14 13 13-0574	EA		3" E-Z Flange Set Screw Flange Adapter For Ductile Iron Pipe (EBAA Iron 1003DSM).....	152.12	59.76
33 14 13 13-0575	EA		4" E-Z Flange Set Screw Flange Adapter For Ductile Iron Pipe (EBAA Iron 1004DSM).....	193.97	70.79
33 14 13 13-0576	EA		6" E-Z Flange Set Screw Flange Adapter For Ductile Iron Pipe (EBAA Iron 1006DSM).....	249.85	87.61
33 14 13 13-0577	EA		8" E-Z Flange Set Screw Flange Adapter For Ductile Iron Pipe (EBAA Iron 1008DSM).....	285.65	102.23
33 14 13 13-0578	EA		10" E-Z Flange Set Screw Flange Adapter For Ductile Iron Pipe (EBAA Iron 1010DSM).....	498.71	156.77
33 14 13 13-0579	EA		12" E-Z Flange Set Screw Flange Adapter For Ductile Iron Pipe (EBAA Iron 1012DSM).....	562.54	179.20
33 14 13 13-0580			Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 2100 Series) (33 14 13 13-0002) Note: Includes nuts, bolts and gasket.		
33 14 13 13-0581	EA		3" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 210300).....	215.79	59.76
33 14 13 13-0582	EA		4" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 210400).....	267.64	70.79
33 14 13 13-0583	EA		6" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 210600).....	368.29	87.61
33 14 13 13-0584	EA		8" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 210800).....	527.15	102.23
33 14 13 13-0585	EA		10" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 211000).....	765.60	156.77
33 14 13 13-0586	EA		12" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 211200).....	948.47	179.20
33 14 13 13-0587	EA		14" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 211400).....	1,443.30	192.87
33 14 13 13-0588	EA		16" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 211600).....	2,009.35	209.03
33 14 13 13-0589	EA		18" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 211800).....	2,275.86	250.84
33 14 13 13-0590	EA		20" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 212000).....	2,514.33	278.58
33 14 13 13-0591	EA		24" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 212400).....	3,038.33	321.43
33 14 13 13-0592	EA		30" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 213000).....	3,902.87	385.47
33 14 13 13-0593	EA		36" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 213600).....	5,809.06	482.38
33 14 13 13-0594	EA		42" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 214200).....	14,999.46	556.59
33 14 13 13-0595	EA		48" Restrained Flange Adapter For Ductile Iron Pipe (MEGAFLANGE® 214800).....	19,212.81	715.83
33 14 13 13-0596			Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Piping (33 14 13 13-0001) Note: . See CSI section 33 14 13 13-0500 for bolts and gaskets.		
33 14 13 13-0597			Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow (33 14 13 13-0596)		
33 14 13 13-0598	EA		3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow.....	279.82	34.11
33 14 13 13-0599	EA		4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow.....	334.88	40.86
33 14 13 13-0600	EA		6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow.....	518.55	59.86
33 14 13 13-0601	EA		8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow.....	704.88	71.25
33 14 13 13-0602	EA		10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow.....	959.93	79.54
33 14 13 13-0603	EA		12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow.....	1,214.18	93.11



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0604 EA 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow.....	1,715.48	104.86
33 14 13 13-0605 EA 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow.....	2,078.67	119.32
33 14 13 13-0606 EA 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow.....	2,520.47	167.24
33 14 13 13-0607 EA 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow.....	3,141.77	208.81
33 14 13 13-0608 EA 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow.....	4,435.62	278.42
33 14 13 13-0609 EA 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow.....	7,046.37	298.30
33 14 13 13-0610 EA 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow.....	10,329.17	310.06
33 14 13 13-0611 EA 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow.....	16,960.35	357.97
33 14 13 13-0612 EA 48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 90 Degree Elbow.....	22,153.10	380.57
33 14 13 13-0613 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow <small>(33 14 13 13-0596)</small>		
33 14 13 13-0614 EA 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow.....	268.04	34.11
33 14 13 13-0615 EA 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow.....	314.53	40.86
33 14 13 13-0616 EA 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow.....	483.21	59.86
33 14 13 13-0617 EA 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow.....	650.26	71.25
33 14 13 13-0618 EA 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow.....	844.25	79.54
33 14 13 13-0619 EA 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow.....	1,110.29	93.11
33 14 13 13-0620 EA 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow.....	1,492.71	104.86
33 14 13 13-0621 EA 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow.....	1,785.21	119.32
33 14 13 13-0622 EA 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow.....	2,120.97	167.24
33 14 13 13-0623 EA 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow.....	2,577.34	208.81
33 14 13 13-0624 EA 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow.....	3,397.78	278.42
33 14 13 13-0625 EA 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow.....	6,171.33	298.30
33 14 13 13-0626 EA 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow.....	8,494.48	310.06
33 14 13 13-0627 EA 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow.....	12,584.08	357.97
33 14 13 13-0628 EA 48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 45 Degree Elbow.....	16,080.30	380.57
33 14 13 13-0629 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow <small>(33 14 13 13-0596)</small>		
33 14 13 13-0630 EA 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	211.27	34.11
33 14 13 13-0631 EA 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	311.31	40.86
33 14 13 13-0632 EA 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	470.36	59.86
33 14 13 13-0633 EA 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	645.97	71.25
33 14 13 13-0634 EA 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	843.18	79.54
33 14 13 13-0635 EA 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	1,048.17	93.11
33 14 13 13-0636 EA 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	1,501.27	104.86
33 14 13 13-0637 EA 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	1,746.65	119.32
33 14 13 13-0638 EA 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	2,111.33	167.24
33 14 13 13-0639 EA 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	2,666.23	208.81
33 14 13 13-0640 EA 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	3,327.09	278.42
33 14 13 13-0641 EA 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	5,504.08	298.30
33 14 13 13-0642 EA 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	7,476.99	310.06
33 14 13 13-0643 EA 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	10,667.99	357.97
33 14 13 13-0644 EA 48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 22-1/2 Degree Elbow.....	13,630.84	380.57
33 14 13 13-0645 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow <small>(33 14 13 13-0596)</small>		
33 14 13 13-0646 EA 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	211.27	34.11
33 14 13 13-0647 EA 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	370.22	40.86
33 14 13 13-0648 EA 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	474.64	59.86
33 14 13 13-0649 EA 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	626.69	71.25
33 14 13 13-0650 EA 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	841.04	79.54
33 14 13 13-0651 EA 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	1,019.25	93.11
33 14 13 13-0652 EA 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	1,613.73	104.86
33 14 13 13-0653 EA 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	1,799.13	119.32
33 14 13 13-0654 EA 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	2,415.51	167.24
33 14 13 13-0655 EA 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	2,574.12	208.81
33 14 13 13-0656 EA 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	3,328.16	278.42
33 14 13 13-0657 EA 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	5,574.76	298.30
33 14 13 13-0658 EA 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	7,274.57	310.06
33 14 13 13-0659 EA 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	10,378.81	357.97
33 14 13 13-0660 EA 48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron 11-1/4 Degree Elbow.....	13,553.72	380.57
33 14 13 13-0661 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow <small>(33 14 13 13-0596)</small>		
33 14 13 13-0662 EA 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	246.62	34.11
33 14 13 13-0663 EA 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	359.51	40.86
33 14 13 13-0664 EA 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	559.25	59.86
33 14 13 13-0665 EA 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	756.29	71.25
33 14 13 13-0666 EA 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow.....	1,034.90	79.54

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0667 EA 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	1,296.65	93.11
33 14 13 13-0668 EA 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	2,307.77	104.86
33 14 13 13-0669 EA 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	3,585.63	119.32
33 14 13 13-0670 EA 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	4,108.82	167.24
33 14 13 13-0671 EA 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	4,741.91	208.81
33 14 13 13-0672 EA 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 90 Degree Elbow	5,146.79	278.42
33 14 13 13-0673 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow <small>(33 14 13 13-0596)</small>		
33 14 13 13-0674 EA 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	246.62	34.11
33 14 13 13-0675 EA 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	318.80	40.86
33 14 13 13-0676 EA 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	500.35	59.86
33 14 13 13-0677 EA 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	702.74	71.25
33 14 13 13-0678 EA 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	926.72	79.54
33 14 13 13-0679 EA 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	1,202.40	93.11
33 14 13 13-0680 EA 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	1,595.52	104.86
33 14 13 13-0681 EA 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	1,914.80	119.32
33 14 13 13-0682 EA 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	3,562.58	167.24
33 14 13 13-0683 EA 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	3,750.12	208.81
33 14 13 13-0684 EA 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Plain End (MJxPE) Ductile Iron 45 Degree Elbow	3,927.94	278.42
33 14 13 13-0685 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee <small>(33 14 13 13-0596)</small>		
33 14 13 13-0686 EA 3" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	348.50	51.17
33 14 13 13-0687 EA 4" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	380.87	57.69
33 14 13 13-0688 EA 4" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	401.81	59.86
33 14 13 13-0689 EA 6" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	569.09	75.88
33 14 13 13-0690 EA 6" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	615.59	78.86
33 14 13 13-0691 EA 6" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	651.27	88.36
33 14 13 13-0692 EA 8" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	753.50	91.21
33 14 13 13-0693 EA 8" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	815.95	100.72
33 14 13 13-0694 EA 8" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	896.15	107.37
33 14 13 13-0695 EA 10" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	1,003.08	98.53
33 14 13 13-0696 EA 10" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	1,004.85	107.58
33 14 13 13-0697 EA 10" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	1,087.80	113.90
33 14 13 13-0698 EA 10" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	1,172.57	119.32
33 14 13 13-0699 EA 12" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	1,204.30	110.28
33 14 13 13-0700 EA 12" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	1,217.85	119.32
33 14 13 13-0701 EA 12" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	1,315.79	126.65
33 14 13 13-0702 EA 12" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	1,511.97	131.08
33 14 13 13-0703 EA 12" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	1,517.78	137.41
33 14 13 13-0704 EA 14" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	1,713.67	139.21
33 14 13 13-0705 EA 14" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	1,852.31	145.53
33 14 13 13-0706 EA 14" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	2,239.12	150.96
33 14 13 13-0707 EA 14" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	2,362.76	157.29
33 14 13 13-0708 EA 14" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	2,196.72	167.24
33 14 13 13-0709 EA 16" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	2,050.23	167.24
33 14 13 13-0710 EA 16" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	2,160.03	172.65
33 14 13 13-0711 EA 16" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	2,581.11	178.98
33 14 13 13-0712 EA 16" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	2,427.36	184.41
33 14 13 13-0713 EA 16" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	3,150.27	194.35
33 14 13 13-0714 EA 16" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	2,861.78	208.81
33 14 13 13-0715 EA 18" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	2,689.85	214.24
33 14 13 13-0716 EA 18" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	2,834.92	219.66
33 14 13 13-0717 EA 18" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	3,018.23	225.09
33 14 13 13-0718 EA 18" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	3,187.92	231.42
33 14 13 13-0719 EA 18" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	3,276.79	241.35
33 14 13 13-0720 EA 18" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	3,500.25	254.92
33 14 13 13-0721 EA 18" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	3,905.17	278.42
33 14 13 13-0722 EA 20" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	3,114.25	306.44
33 14 13 13-0723 EA 20" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	3,167.22	312.77
33 14 13 13-0724 EA 20" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	3,471.55	318.20
33 14 13 13-0725 EA 20" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee	3,639.11	324.53



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0726 EA 20" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	3,677.63	334.46
33 14 13 13-0727 EA 20" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	3,637.63	348.03
33 14 13 13-0728 EA 20" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	4,624.12	371.53
33 14 13 13-0729 EA 20" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	3,978.96	417.63
33 14 13 13-0730 EA 24" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	3,789.92	398.64
33 14 13 13-0731 EA 24" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	3,826.82	405.88
33 14 13 13-0732 EA 24" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	3,895.53	410.40
33 14 13 13-0733 EA 24" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	3,996.67	416.73
33 14 13 13-0734 EA 24" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	4,528.94	426.67
33 14 13 13-0735 EA 24" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	4,722.43	440.23
33 14 13 13-0736 EA 24" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	5,783.89	463.73
33 14 13 13-0737 EA 24" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	5,982.72	510.74
33 14 13 13-0738 EA 24" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	5,640.44	556.84
33 14 13 13-0739 EA 30" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	6,549.98	464.63
33 14 13 13-0740 EA 30" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	6,246.28	470.96
33 14 13 13-0741 EA 30" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	6,594.53	476.39
33 14 13 13-0742 EA 30" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	6,944.16	482.72
33 14 13 13-0743 EA 30" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	7,441.09	492.66
33 14 13 13-0744 EA 30" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	7,978.37	655.37
33 14 13 13-0745 EA 30" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	7,951.66	529.72
33 14 13 13-0746 EA 30" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	7,958.77	575.83
33 14 13 13-0747 EA 30" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	8,299.81	621.92
33 14 13 13-0748 EA 30" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	9,876.92	655.37
33 14 13 13-0749 EA 36" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	6,775.17	522.49
33 14 13 13-0750 EA 36" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	7,561.48	527.91
33 14 13 13-0751 EA 36" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	7,987.15	534.24
33 14 13 13-0752 EA 36" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	8,290.23	544.19
33 14 13 13-0753 EA 36" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	8,596.17	557.74
33 14 13 13-0754 EA 36" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	9,184.23	581.24
33 14 13 13-0755 EA 36" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	9,808.25	627.35
33 14 13 13-0756 EA 36" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	10,860.46	673.45
33 14 13 13-0757 EA 36" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	12,246.92	732.21
33 14 13 13-0758 EA 36" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	14,083.12	732.21
33 14 13 13-0759 EA 42" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	15,943.58	563.17
33 14 13 13-0760 EA 42" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	16,263.80	572.21
33 14 13 13-0761 EA 42" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	17,872.12	586.67
33 14 13 13-0762 EA 42" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	20,351.64	610.18
33 14 13 13-0763 EA 42" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	20,421.93	656.27
33 14 13 13-0764 EA 42" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	16,946.86	702.38
33 14 13 13-0765 EA 42" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	17,326.93	735.82
33 14 13 13-0766 EA 42" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	21,329.45	761.14
33 14 13 13-0767 EA 42" x 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	22,473.69	775.60
33 14 13 13-0768 EA 48" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	18,577.11	608.37
33 14 13 13-0769 EA 48" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	18,910.17	618.31
33 14 13 13-0770 EA 48" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	19,383.20	632.77
33 14 13 13-0771 EA 48" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	19,867.38	655.37
33 14 13 13-0772 EA 48" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	20,389.65	702.38
33 14 13 13-0773 EA 48" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	20,519.69	748.48
33 14 13 13-0774 EA 48" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	22,025.04	781.02
33 14 13 13-0775 EA 48" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	17,772.37	807.23
33 14 13 13-0776 EA 48" x 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	22,223.99	821.70
33 14 13 13-0777 EA 48" x 48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Tee.....	29,525.73	844.30

33 14 13 13-0778 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Laterals) (33 14 13 13-0596)

33 14 13 13-0779 EA 3" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	390.84	57.19
33 14 13 13-0780 EA 4" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	428.32	57.19
33 14 13 13-0781 EA 4" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	500.35	59.86
33 14 13 13-0782 EA 6" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	555.17	75.88
33 14 13 13-0783 EA 6" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	617.73	78.86
33 14 13 13-0784 EA 6" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	753.02	88.36
33 14 13 13-0785 EA 8" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	981.63	91.21
33 14 13 13-0786 EA 8" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	910.21	100.72
33 14 13 13-0787 EA 8" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	1,021.46	107.37
33 14 13 13-0788 EA 10" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	1,430.42	98.53
33 14 13 13-0789 EA 10" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	1,491.10	107.58
33 14 13 13-0790 EA 10" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	1,666.16	113.90
33 14 13 13-0791 EA 10" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	1,817.34	119.32
33 14 13 13-0792 EA 12" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	1,743.03	110.28
33 14 13 13-0793 EA 12" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	1,975.07	119.32
33 14 13 13-0794 EA 12" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	2,333.28	125.65
33 14 13 13-0795 EA 12" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	2,336.67	131.08
33 14 13 13-0796 EA 12" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	2,160.41	137.41
33 14 13 13-0797 EA 14" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	2,561.93	139.21
33 14 13 13-0798 EA 14" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	2,941.56	145.53
33 14 13 13-0799 EA 14" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	3,866.03	150.96
33 14 13 13-0800 EA 14" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	4,144.97	157.29
33 14 13 13-0801 EA 14" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	4,042.12	167.24
33 14 13 13-0802 EA 16" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	2,672.58	167.24
33 14 13 13-0803 EA 16" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	2,949.39	172.65

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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33 14 13 13-0804	EA	16" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	3,494.71	178.98
33 14 13 13-0805	EA	16" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	3,605.50	184.41
33 14 13 13-0806	EA	16" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	4,458.01	194.35
33 14 13 13-0807	EA	16" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	4,222.00	208.81
33 14 13 13-0808	EA	18" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	3,782.31	214.24
33 14 13 13-0809	EA	18" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	4,077.33	219.66
33 14 13 13-0810	EA	18" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	4,362.38	225.09
33 14 13 13-0811	EA	18" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	4,671.32	231.42
33 14 13 13-0812	EA	18" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	4,720.55	241.35
33 14 13 13-0813	EA	18" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	4,776.93	254.92
33 14 13 13-0814	EA	18" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	4,340.01	278.42
33 14 13 13-0815	EA	20" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	4,465.91	300.44
33 14 13 13-0816	EA	20" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	4,563.85	312.77
33 14 13 13-0817	EA	20" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	5,022.42	318.20
33 14 13 13-0818	EA	20" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	5,477.01	324.53
33 14 13 13-0819	EA	20" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	5,529.46	334.46
33 14 13 13-0820	EA	20" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	5,591.21	348.03
33 14 13 13-0821	EA	20" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	6,489.88	371.53
33 14 13 13-0822	EA	20" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	6,123.18	417.63
33 14 13 13-0823	EA	24" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	5,418.97	398.64
33 14 13 13-0824	EA	24" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	5,489.07	404.97
33 14 13 13-0825	EA	24" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	6,127.58	410.40
33 14 13 13-0826	EA	24" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	6,418.29	416.73
33 14 13 13-0827	EA	24" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	7,430.39	426.67
33 14 13 13-0828	EA	24" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	8,268.64	440.23
33 14 13 13-0829	EA	24" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	9,262.63	463.73
33 14 13 13-0830	EA	24" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	10,176.91	510.74
33 14 13 13-0831	EA	24" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	8,990.65	556.84
33 14 13 13-0832	EA	30" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	11,324.67	464.63
33 14 13 13-0833	EA	30" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	12,715.36	470.96
33 14 13 13-0834	EA	30" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	13,462.04	476.39
33 14 13 13-0835	EA	30" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	14,210.10	482.72
33 14 13 13-0836	EA	30" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	15,270.39	492.66
33 14 13 13-0837	EA	30" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	16,410.67	506.22
33 14 13 13-0838	EA	30" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	16,820.94	529.72
33 14 13 13-0839	EA	30" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	17,414.98	575.83
33 14 13 13-0840	EA	30" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	18,240.14	621.92
33 14 13 13-0841	EA	30" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	19,776.54	655.37
33 14 13 13-0842	EA	36" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	21,769.29	534.24
33 14 13 13-0843	EA	36" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	22,627.17	544.19
33 14 13 13-0844	EA	36" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	23,480.41	557.74
33 14 13 13-0845	EA	36" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	25,127.73	581.24
33 14 13 13-0846	EA	36" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	26,816.37	627.35
33 14 13 13-0847	EA	36" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	29,754.68	673.45
33 14 13 13-0848	EA	36" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	33,350.69	706.89
33 14 13 13-0849	EA	36" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	39,844.84	732.21
33 14 13 13-0850	EA	42" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	35,056.63	656.27
33 14 13 13-0851	EA	42" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	35,920.34	702.38
33 14 13 13-0852	EA	42" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	38,375.70	735.82
33 14 13 13-0853	EA	42" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	43,916.61	761.14
33 14 13 13-0854	EA	42" x 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	51,845.89	775.60
33 14 13 13-0855	EA	48" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	34,562.72	702.38
33 14 13 13-0856	EA	48" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	39,163.29	748.48
33 14 13 13-0857	EA	48" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	41,746.10	781.02
33 14 13 13-0858	EA	48" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	47,620.11	807.23
33 14 13 13-0859	EA	48" x 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	62,355.86	821.70
33 14 13 13-0860	EA	48" x 48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Wye (Lateral).....	68,481.59	844.30

33 14 13 13-0861 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee (33 14 13 13-0861)

33 14 13 13-0862	EA	6" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee.....	690.90	88.36
33 14 13 13-0863	EA	8" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee.....	856.65	100.72
33 14 13 13-0864	EA	10" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee.....	1,219.06	107.58
33 14 13 13-0865	EA	12" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee.....	1,402.07	119.32
33 14 13 13-0866	EA	14" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee.....	1,849.69	139.21
33 14 13 13-0867	EA	16" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee.....	2,252.73	167.24
33 14 13 13-0868	EA	18" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee.....	2,663.07	214.24
33 14 13 13-0869	EA	20" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee.....	3,584.44	306.44
33 14 13 13-0870	EA	24" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee.....	4,188.34	398.64
33 14 13 13-0871	EA	30" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Hydrant Tee.....	7,555.68	464.63



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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33 14 13 13-0872 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross (33 14 13 13-0596)

33 14 13 13-0873	EA 3" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	391.48	68.23
33 14 13 13-0874	EA 4" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	486.28	74.24
33 14 13 13-0875	EA 4" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	603.50	75.06
33 14 13 13-0876	EA 6" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	643.32	93.05
33 14 13 13-0877	EA 6" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	750.73	100.72
33 14 13 13-0878	EA 6" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	832.65	125.41
33 14 13 13-0879	EA 8" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	798.21	110.21
33 14 13 13-0880	EA 8" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	942.24	134.92
33 14 13 13-0881	EA 8" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	935.08	144.42
33 14 13 13-0882	EA 10" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	935.23	115.70
33 14 13 13-0883	EA 10" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	1,050.65	139.21
33 14 13 13-0884	EA 10" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	1,244.14	148.25
33 14 13 13-0885	EA 10" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	1,347.48	159.10
33 14 13 13-0886	EA 12" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	1,196.61	125.65
33 14 13 13-0887	EA 12" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	1,385.93	149.15
33 14 13 13-0888	EA 12" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	1,503.38	158.19
33 14 13 13-0889	EA 12" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	1,750.24	169.04
33 14 13 13-0890	EA 12" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	1,995.55	178.98
33 14 13 13-0891	EA 14" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	2,058.64	163.62
33 14 13 13-0892	EA 14" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	2,436.36	172.65
33 14 13 13-0893	EA 14" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	2,496.86	184.41
33 14 13 13-0894	EA 14" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	2,635.07	193.45
33 14 13 13-0895	EA 14" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	2,919.00	208.81
33 14 13 13-0896	EA 16" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	2,304.47	185.31
33 14 13 13-0897	EA 16" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	2,632.91	193.45
33 14 13 13-0898	EA 16" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	3,168.95	205.19
33 14 13 13-0899	EA 16" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	3,540.65	215.14
33 14 13 13-0900	EA 16" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	4,294.77	229.61
33 14 13 13-0901	EA 16" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	4,484.90	250.40
33 14 13 13-0902	EA 18" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	3,957.86	218.76
33 14 13 13-0903	EA 18" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	4,186.72	227.80
33 14 13 13-0904	EA 18" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	4,383.24	238.64
33 14 13 13-0905	EA 18" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	4,759.22	248.59
33 14 13 13-0906	EA 18" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	5,570.09	263.06
33 14 13 13-0907	EA 18" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	5,926.24	283.84
33 14 13 13-0908	EA 18" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	6,192.65	318.20
33 14 13 13-0909	EA 20" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	4,976.21	274.80
33 14 13 13-0910	EA 20" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	5,207.20	282.94
33 14 13 13-0911	EA 20" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	5,366.23	294.70
33 14 13 13-0912	EA 20" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	5,739.01	304.63
33 14 13 13-0913	EA 20" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	5,834.42	319.10
33 14 13 13-0914	EA 20" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	7,087.02	339.89
33 14 13 13-0915	EA 20" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	7,353.43	373.33
33 14 13 13-0916	EA 20" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	7,941.22	429.38
33 14 13 13-0917	EA 24" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	6,804.90	343.50
33 14 13 13-0918	EA 24" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	6,963.33	352.55
33 14 13 13-0919	EA 24" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	7,230.27	363.39
33 14 13 13-0920	EA 24" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	7,460.60	373.33
33 14 13 13-0921	EA 24" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	7,590.28	387.80
33 14 13 13-0922	EA 24" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	7,874.66	408.59
33 14 13 13-0923	EA 24" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	10,475.93	442.94
33 14 13 13-0924	EA 24" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	11,026.23	498.08
33 14 13 13-0925	EA 24" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	12,137.33	566.78
33 14 13 13-0926	EA 30" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	10,542.89	456.50
33 14 13 13-0927	EA 30" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	10,752.25	467.35
33 14 13 13-0928	EA 30" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	10,957.95	477.29
33 14 13 13-0929	EA 30" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	11,201.16	491.75
33 14 13 13-0930	EA 30" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	11,480.19	513.45
33 14 13 13-0931	EA 30" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	11,805.52	546.90
33 14 13 13-0932	EA 30" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	12,217.64	602.04
33 14 13 13-0933	EA 30" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	15,728.95	671.65
33 14 13 13-0934	EA 30" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	18,085.64	775.60
33 14 13 13-0935	EA 36" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	14,746.00	494.46
33 14 13 13-0936	EA 36" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	14,953.23	505.32
33 14 13 13-0937	EA 36" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	15,132.14	515.26
33 14 13 13-0938	EA 36" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	15,345.37	530.62
33 14 13 13-0939	EA 36" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	15,595.48	551.41
33 14 13 13-0940	EA 36" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	15,891.88	584.86
33 14 13 13-0941	EA 36" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	16,272.24	640.91
33 14 13 13-0942	EA 36" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	16,954.57	709.61
33 14 13 13-0943	EA 36" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	22,869.26	813.56
33 14 13 13-0944	EA 36" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	25,137.00	852.44
33 14 13 13-0945	EA 42" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	19,820.53	537.86
33 14 13 13-0946	EA 42" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	20,234.04	552.32
33 14 13 13-0947	EA 42" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	20,476.67	574.02
33 14 13 13-0948	EA 42" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	20,813.76	607.47
33 14 13 13-0949	EA 42" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	21,420.82	663.51

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0950 EA 42" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	22,695.78	732.21
33 14 13 13-0951 EA 42" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	27,582.27	836.16
33 14 13 13-0952 EA 42" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	36,074.90	874.13
33 14 13 13-0953 EA 42" x 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	38,665.14	896.73
33 14 13 13-0954 EA 48" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	26,821.62	626.44
33 14 13 13-0955 EA 48" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	27,000.59	640.91
33 14 13 13-0956 EA 48" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	27,239.99	661.70
33 14 13 13-0957 EA 48" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	27,499.96	695.15
33 14 13 13-0958 EA 48" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	27,846.76	751.19
33 14 13 13-0959 EA 48" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	28,445.89	819.89
33 14 13 13-0960 EA 48" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	30,092.51	923.84
33 14 13 13-0961 EA 48" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	36,912.17	962.72
33 14 13 13-0962 EA 48" x 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	47,519.12	985.32
33 14 13 13-0963 EA 48" x 48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Cross.....	50,602.35	1,073.00
33 14 13 13-0964 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducers <small>(33 14 13 13-0966)</small>		
33 14 13 13-0965 EA 4" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	275.81	37.12
33 14 13 13-0966 EA 6" x 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	384.31	46.53
33 14 13 13-0967 EA 6" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	422.08	49.40
33 14 13 13-0968 EA 8" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	551.62	56.06
33 14 13 13-0969 EA 8" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	575.43	65.56
33 14 13 13-0970 EA 10" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	672.92	58.76
33 14 13 13-0971 EA 10" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	705.74	67.80
33 14 13 13-0972 EA 10" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	735.14	74.13
33 14 13 13-0973 EA 12" x 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	777.26	65.09
33 14 13 13-0974 EA 12" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	860.44	74.13
33 14 13 13-0975 EA 12" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	875.91	79.54
33 14 13 13-0976 EA 12" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	915.70	85.87
33 14 13 13-0977 EA 14" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	1,338.09	84.07
33 14 13 13-0978 EA 14" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	1,347.14	89.49
33 14 13 13-0979 EA 14" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	1,177.01	95.82
33 14 13 13-0980 EA 14" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	1,202.11	101.25
33 14 13 13-0981 EA 16" x 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	1,603.33	97.63
33 14 13 13-0982 EA 16" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	1,557.75	103.96
33 14 13 13-0983 EA 16" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	1,465.81	109.38
33 14 13 13-0984 EA 16" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	1,450.22	114.80
33 14 13 13-0985 EA 16" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	1,638.69	124.75
33 14 13 13-0986 EA 18" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	1,748.47	126.55
33 14 13 13-0987 EA 18" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	1,969.27	132.88
33 14 13 13-0988 EA 18" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	1,884.06	138.31
33 14 13 13-0989 EA 18" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	2,248.17	148.25
33 14 13 13-0990 EA 18" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	1,976.82	162.71
33 14 13 13-0991 EA 20" x 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	2,329.65	173.56
33 14 13 13-0992 EA 20" x 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	2,349.09	178.98
33 14 13 13-0993 EA 20" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	2,139.64	185.31
33 14 13 13-0994 EA 20" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	2,140.67	195.26
33 14 13 13-0995 EA 20" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	2,093.17	208.81
33 14 13 13-0996 EA 20" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	2,472.38	232.32



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-0997 EA 24" x 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	2,938.01	231.42
33 14 13 13-0998 EA 24" x 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	2,982.96	241.35
33 14 13 13-0999 EA 24" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	3,038.29	254.92
33 14 13 13-1000 EA 24" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	2,998.72	278.42
33 14 13 13-1001 EA 24" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	3,459.94	324.53
33 14 13 13-1002 EA 30" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	5,326.56	287.46
33 14 13 13-1003 EA 30" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	5,555.83	310.96
33 14 13 13-1004 EA 30" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	5,366.93	357.97
33 14 13 13-1005 EA 30" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	4,573.74	404.07
33 14 13 13-1006 EA 36" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	7,026.40	383.28
33 14 13 13-1007 EA 36" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	6,549.17	429.38
33 14 13 13-1008 EA 36" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	6,993.11	462.83
33 14 13 13-1009 EA 42" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	10,336.62	328.14
33 14 13 13-1010 EA 42" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	10,282.06	351.64
33 14 13 13-1011 EA 42" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	10,319.14	397.74
33 14 13 13-1012 EA 42" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	10,730.88	443.85
33 14 13 13-1013 EA 42" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	8,797.11	477.29
33 14 13 13-1014 EA 42" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	9,206.68	502.60
33 14 13 13-1015 EA 48" x 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	13,011.46	350.74
33 14 13 13-1016 EA 48" x 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	12,599.16	374.24
33 14 13 13-1017 EA 48" x 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	11,981.86	420.35
33 14 13 13-1018 EA 48" x 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	12,340.05	467.35
33 14 13 13-1019 EA 48" x 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	14,772.91	499.89
33 14 13 13-1020 EA 48" x 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	12,798.34	525.20
33 14 13 13-1021 EA 48" x 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Mechanical Joint Ductile Iron Reducer.....	14,066.82	539.67
33 14 13 13-1022 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps <small>(33 14 13 13-0596)</small>		
33 14 13 13-1023 EA 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps.....	265.49	78.39
33 14 13 13-1024 EA 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps.....	319.28	92.17
33 14 13 13-1025 EA 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps.....	461.23	114.97
33 14 13 13-1026 EA 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps.....	611.42	131.11
33 14 13 13-1027 EA 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps.....	820.77	198.87
33 14 13 13-1028 EA 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps.....	1,024.89	216.95
33 14 13 13-1029 EA 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps.....	1,162.72	238.64
33 14 13 13-1030 EA 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps.....	1,407.47	264.87
33 14 13 13-1031 EA 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps.....	1,645.12	298.30
33 14 13 13-1032 EA 20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps.....	1,978.52	340.79
33 14 13 13-1033 EA 24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps.....	2,525.16	397.74
33 14 13 13-1034 EA 30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps.....	4,509.30	477.29
33 14 13 13-1035 EA 36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps.....	7,336.63	596.61
33 14 13 13-1036 EA 42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps.....	10,531.32	715.94
33 14 13 13-1037 EA 48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Caps.....	12,522.96	795.49
33 14 13 13-1038 Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug <small>(33 14 13 13-0596)</small>		
33 14 13 13-1039 EA 3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug.....	266.56	78.39
33 14 13 13-1040 EA 4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug.....	330.00	92.17
33 14 13 13-1041 EA 6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug.....	489.08	114.97
33 14 13 13-1042 EA 8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug.....	639.27	131.11
33 14 13 13-1043 EA 10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug.....	980.36	198.87
33 14 13 13-1044 EA 12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug.....	1,061.30	216.95
33 14 13 13-1045 EA 14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug.....	1,395.13	238.64
33 14 13 13-1046 EA 16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug.....	1,676.30	264.87
33 14 13 13-1047 EA 18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug.....	1,988.92	298.30

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-1048	EA	20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	2,443.35	340.79
33 14 13 13-1049	EA	24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	3,187.06	397.74
33 14 13 13-1050	EA	30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	5,423.96	477.29
33 14 13 13-1051	EA	36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	7,905.35	596.61
33 14 13 13-1052	EA	42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	10,603.08	715.94
33 14 13 13-1053	EA	48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Plug	14,044.91	795.49
33 14 13 13-1054		Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters <small>(33 14 13 13-0596)</small>		
33 14 13 13-1055	EA	3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	365.81	119.14
33 14 13 13-1056	EA	4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	477.86	137.77
33 14 13 13-1057	EA	6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	652.21	172.92
33 14 13 13-1058	EA	8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	848.05	196.68
33 14 13 13-1059	EA	10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	1,253.12	298.30
33 14 13 13-1060	EA	12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	1,487.00	325.43
33 14 13 13-1061	EA	14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	1,924.02	357.97
33 14 13 13-1062	EA	16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	2,181.35	397.74
33 14 13 13-1063	EA	18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	2,839.33	447.46
33 14 13 13-1064	EA	20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	3,290.69	511.65
33 14 13 13-1065	EA	24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	3,976.77	596.61
33 14 13 13-1066	EA	30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	6,188.26	715.94
33 14 13 13-1067	EA	36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	8,393.74	894.92
33 14 13 13-1068	EA	42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	11,361.46	1,022.38
33 14 13 13-1069	EA	48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint x Flanged End (MJxFE) Ductile Iron Adapters	14,097.03	1,193.23
33 14 13 13-1070		Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves <small>(33 14 13 13-0596)</small>		
33 14 13 13-1071	EA	3" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	378.66	119.14
33 14 13 13-1072	EA	4" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	461.80	137.77
33 14 13 13-1073	EA	6" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	670.42	172.92
33 14 13 13-1074	EA	8" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	897.32	196.68
33 14 13 13-1075	EA	10" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	1,184.57	298.30
33 14 13 13-1076	EA	12" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	1,422.73	325.43
33 14 13 13-1077	EA	14" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	1,786.93	357.97
33 14 13 13-1078	EA	16" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	2,108.52	397.74
33 14 13 13-1079	EA	18" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	2,509.45	447.46
33 14 13 13-1080	EA	20" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	2,919.04	511.65
33 14 13 13-1081	EA	24" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	3,636.18	596.61
33 14 13 13-1082	EA	30" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	6,011.53	715.94
33 14 13 13-1083	EA	36" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	7,803.60	894.92
33 14 13 13-1084	EA	42" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	10,115.13	1,021.47
33 14 13 13-1085	EA	48" Ceramic Epoxy Lined (P401), Bituminous Seal Coat, Mechanical Joint Ductile Iron Long Sleeves	14,927.09	1,193.23
33 14 13 13-1086		Push-On Joint Ductile Iron Piping <small>(33 14 13 13-0001)</small>		
33 14 13 13-1087		Push-On Joint Ductile Iron Pipe <small>(33 14 13 13-1086)</small>		
		Note: Conforming to ANSI/AWWA C151/A21.51, federal specification WW-P-421D.		
33 14 13 13-1088	LF	4", Class 50, Push-On Joint Ductile Iron Pipe	24.52	7.83
		For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	8.86	
		For Cement Mortar Lining (CML), Add	1.27	
		Note: ANSI/AWWA C104/A21.4		
		For 40 Mil Ceramic Epoxy Lining (P401), Add	6.83	
		For Fusion Bonded Epoxy Lining (206N), Add	2.28	
		Note: ANSI/AWWA C104/A21.4		
		For Bituminous Or Coal Tar Coating, 1 Mil, Add	0.95	
		Note: ANSI/AWWA C151/A21.51		
		For >1,000, Deduct	-1.23	
		For Class 51, Add	1.24	
		For Class 52, Add	2.76	
		For Class 53, Add	7.22	
		For Class 54, Add	10.29	
		For Class 55, Add	11.85	
		For Class 56, Add	13.39	



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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-1089 LF 6", Class 50, Push-On Joint Ductile Iron Pipe.....	26.90	8.64
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	9.72	
For Cement Mortar Lining (CML), Add	1.39	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	7.50	
For Fusion Bonded Epoxy Lining (206N), Add	2.50	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	1.04	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-1.35	
For Class 51, Add	1.36	
For Class 52, Add	3.04	
For Class 53, Add	7.93	
For Class 54, Add	11.30	
For Class 55, Add	13.02	
For Class 56, Add	14.71	
33 14 13 13-1090 LF 8", Class 50, Push-On Joint Ductile Iron Pipe.....	33.23	9.50
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	13.29	
For Cement Mortar Lining (CML), Add	1.90	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	10.25	
For Fusion Bonded Epoxy Lining (206N), Add	3.42	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	1.42	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-1.66	
For Class 51, Add	1.82	
For Class 52, Add	4.06	
For Class 53, Add	10.71	
For Class 54, Add	15.26	
For Class 55, Add	17.56	
For Class 56, Add	19.83	
33 14 13 13-1091 LF 10", Class 50, Push-On Joint Ductile Iron Pipe.....	47.12	13.47
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	16.07	
For Cement Mortar Lining (CML), Add	2.68	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	13.39	
For Fusion Bonded Epoxy Lining (206N), Add	4.82	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	2.01	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-2.36	
For Class 51, Add	2.57	
For Class 52, Add	5.73	
For Class 53, Add	15.11	
For Class 54, Add	21.54	
For Class 55, Add	24.80	
For Class 56, Add	28.00	
33 14 13 13-1092 LF 12", Class 50, Push-On Joint Ductile Iron Pipe.....	54.52	14.92
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	15.96	
For Cement Mortar Lining (CML), Add	3.19	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	12.77	
For Fusion Bonded Epoxy Lining (206N), Add	5.75	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	2.39	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-2.73	
For Class 51, Add	3.04	
For Class 52, Add	6.79	
For Class 53, Add	17.95	
For Class 54, Add	25.59	
For Class 55, Add	29.45	
For Class 56, Add	33.25	
33 14 13 13-1093 LF 14", Class 50, Push-On Joint Ductile Iron Pipe.....	66.09	16.82
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	17.90	
For Cement Mortar Lining (CML), Add	4.07	
Note: ANSI/AWWA C104/A21.4		
For 40 Mil Ceramic Epoxy Lining (P401), Add	13.83	
For Fusion Bonded Epoxy Lining (206N), Add	7.32	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	3.05	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-3.30	
For Class 51, Add	3.83	
For Class 52, Add	8.57	
For Class 53, Add	22.76	
For Class 54, Add	32.45	
For Class 55, Add	37.33	
For Class 56, Add	42.13	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13	13-1094	LF	16", Class 50, Push-On Joint Ductile Iron Pipe	78.15	19.17
			For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	20.14	
			For Cement Mortar Lining (CML), Add	4.91	
			Note: ANSI/AWWA C104/A21.4		
			For 40 Mil Ceramic Epoxy Lining (P401), Add	15.23	
			For Fusion Bonded Epoxy Lining (206N), Add	8.84	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	3.68	
			Note: ANSI/AWWA C151/A21.51		
			For >1,000, Deduct	-3.91	
			For Class 51, Add	4.60	
			For Class 52, Add	10.31	
			For Class 53, Add	27.42	
			For Class 54, Add	39.10	
			For Class 55, Add	44.97	
			For Class 56, Add	50.74	
33 14 13	13-1095	LF	18", Class 50, Push-On Joint Ductile Iron Pipe	90.95	22.42
			For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	23.39	
			For Cement Mortar Lining (CML), Add	5.71	
			Note: ANSI/AWWA C104/A21.4		
			For 40 Mil Ceramic Epoxy Lining (P401), Add	17.69	
			For Fusion Bonded Epoxy Lining (206N), Add	10.27	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	4.28	
			Note: ANSI/AWWA C151/A21.51		
			For >1,000, Deduct	-4.55	
			For Class 51, Add	5.35	
			For Class 52, Add	11.98	
			For Class 53, Add	31.85	
			For Class 54, Add	45.43	
			For Class 55, Add	52.25	
			For Class 56, Add	58.95	
33 14 13	13-1096	LF	20", Class 50, Push-On Joint Ductile Iron Pipe	105.22	26.85
			For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	24.53	
			For Cement Mortar Lining (CML), Add	6.45	
			Note: ANSI/AWWA C104/A21.4		
			For 40 Mil Ceramic Epoxy Lining (P401), Add	18.07	
			For Fusion Bonded Epoxy Lining (206N), Add	11.62	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	4.84	
			Note: ANSI/AWWA C151/A21.51		
			For >1,000, Deduct	-5.26	
			For Class 51, Add	6.08	
			For Class 52, Add	13.61	
			For Class 53, Add	36.11	
			For Class 54, Add	51.50	
			For Class 55, Add	59.24	
			For Class 56, Add	66.85	
33 14 13	13-1097	LF	24", Class 50, Push-On Joint Ductile Iron Pipe	133.01	33.54
			For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	25.46	
			For Cement Mortar Lining (CML), Add	8.21	
			Note: ANSI/AWWA C104/A21.4		
			For 40 Mil Ceramic Epoxy Lining (P401), Add	17.25	
			For Fusion Bonded Epoxy Lining (206N), Add	14.78	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	6.16	
			Note: ANSI/AWWA C151/A21.51		
			For >1,000, Deduct	-6.65	
			For Class 51, Add	7.72	
			For Class 52, Add	17.29	
			For Class 53, Add	45.92	
			For Class 54, Add	65.48	
			For Class 55, Add	75.32	
			For Class 56, Add	84.99	
33 14 13	13-1098	LF	30", Class 50, Push-On Joint Ductile Iron Pipe	156.45	35.80
			For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	31.69	
			For Cement Mortar Lining (CML), Add	10.22	
			Note: ANSI/AWWA C104/A21.4		
			For Fusion Bonded Epoxy Lining (206N), Add	18.40	
			Note: ANSI/AWWA C104/A21.4		
			For Bituminous Or Coal Tar Coating, 1 Mil, Add	7.67	
			Note: ANSI/AWWA C151/A21.51		
			For >1,000, Deduct	-7.82	
			For Class 51, Add	9.50	
			For Class 52, Add	21.30	
			For Class 53, Add	56.81	
			For Class 54, Add	81.05	
			For Class 55, Add	93.18	
			For Class 56, Add	105.10	



Utilities	33	CS
Water Utilities	33 10	
Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-1099 LF 36", Class 50, Push-On Joint Ductile Iron Pipe.....	192.24	38.05
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	41.71	
For Cement Mortar Lining (CML), Add	13.46	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	24.22	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	10.09	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-9.61	
For Class 51, Add	12.33	
For Class 52, Add	27.69	
For Class 53, Add	74.27	
For Class 54, Add	106.01	
For Class 55, Add	121.82	
For Class 56, Add	137.34	
33 14 13 13-1100 LF 42", Class 50, Push-On Joint Ductile Iron Pipe.....	232.60	40.32
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	53.19	
For Cement Mortar Lining (CML), Add	17.16	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	30.88	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	12.87	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-11.63	
For Class 51, Add	15.57	
For Class 52, Add	35.00	
For Class 53, Add	94.24	
For Class 54, Add	134.55	
For Class 55, Add	154.55	
For Class 56, Add	174.18	
33 14 13 13-1101 LF 48", Class 50, Push-On Joint Ductile Iron Pipe.....	278.35	42.49
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	66.31	
For Cement Mortar Lining (CML), Add	21.39	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	38.50	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	16.04	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-13.92	
For Class 51, Add	19.27	
For Class 52, Add	43.34	
For Class 53, Add	117.05	
For Class 54, Add	167.16	
For Class 55, Add	191.94	
For Class 56, Add	216.27	
33 14 13 13-1102 LF 54", Class 50, Push-On Joint Ductile Iron Pipe.....	350.35	44.75
For 40 Mil Glass Fiber Epoxy Or Polyurethane Lining, Add	87.59	
For Cement Mortar Lining (CML), Add	28.26	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	50.86	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	21.19	
Note: ANSI/AWWA C151/A21.51		
For >1,000, Deduct	-17.52	
For Class 51, Add	25.23	
For Class 52, Add	56.82	
For Class 53, Add	153.96	
For Class 54, Add	219.94	
For Class 55, Add	252.46	
For Class 56, Add	284.39	
33 14 13 13-1103 Push-On Joint Ductile Iron 90 Degree Elbow (33 14 13 13-1086)		
33 14 13 13-1104 EA 4" 90 Degree Elbow, Push-On Joint Ductile Iron.....	155.19	30.59
For Cement Mortar Lining (CML), Add	10.88	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	19.59	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	8.16	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1105 EA 6" 90 Degree Elbow, Push-On Joint Ductile Iron.....	225.27	45.13
For Cement Mortar Lining (CML), Add	15.69	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	28.23	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	11.76	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1106 EA 8" 90 Degree Elbow, Push-On Joint Ductile Iron.....	298.82	53.58
For Cement Mortar Lining (CML), Add	21.76	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	39.17	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	16.32	
Note: ANSI/AWWA C151/A21.51		

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-1107	EA	10" 90 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	451.96 32.89 59.21 24.67	59.48
33 14 13 13-1108	EA	12" 90 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	579.42 43.52 78.34 32.64	69.78
33 14 13 13-1109	EA	14" 90 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,116.30 95.45 171.80 71.58	78.29
33 14 13 13-1110	EA	16" 90 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,262.42 107.75 193.95 80.81	89.49
33 14 13 13-1111	EA	18" 90 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,959.28 170.04 306.08 127.53	125.29
33 14 13 13-1112	EA	20" 90 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,209.90 189.41 340.94 142.06	157.92
33 14 13 13-1113	EA	24" 90 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,759.51 236.48 425.66 177.36	197.42
33 14 13 13-1114		Push-On Joint Ductile Iron 45 Degree Elbow (33 14 13 13-1086)		
33 14 13 13-1115	EA	4" 45 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	130.44 8.41 15.13 6.31	30.59
33 14 13 13-1116	EA	6" 45 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	192.00 12.36 22.25 9.27	45.13
33 14 13 13-1117	EA	8" 45 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	263.02 18.18 32.72 13.63	53.58
33 14 13 13-1118	EA	10" 45 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	402.54 27.95 50.31 20.96	59.48
33 14 13 13-1119	EA	12" 45 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	516.44 37.22 67.00 27.92	69.78



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	Water Utilities	33 10
	Water Utility Transmission and Distribution	33 14

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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-1120	EA	14" 45 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	723.04 56.12 101.01 42.09	78.29
33 14 13 13-1121	EA	16" 45 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,056.51 87.16 156.89 65.37	89.49
33 14 13 13-1122	EA	18" 45 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,226.74 96.79 174.22 72.59	125.29
33 14 13 13-1123	EA	20" 45 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,708.36 139.26 250.66 104.44	157.92
33 14 13 13-1124	EA	24" 45 Degree Elbow, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	2,120.72 172.60 310.67 129.45	197.42
33 14 13 13-1125		Push-On Joint Ductile Iron Tee (33 14 13 13-1086)		
33 14 13 13-1126	EA	4" Tee, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	236.67 16.83 30.29 12.62	45.13
33 14 13 13-1127	EA	6" Tee, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	330.76 23.02 41.44 17.27	66.32
33 14 13 13-1128	EA	8" Tee, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	448.32 32.64 58.75 24.48	80.38
33 14 13 13-1129	EA	10" Tee, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	649.22 51.36 92.45 38.52	90.39
33 14 13 13-1130	EA	12" Tee, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	805.91 64.77 116.59 48.58	104.23
33 14 13 13-1131	EA	14" Tee, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,282.42 109.26 196.67 81.94	125.29
33 14 13 13-1132	EA	16" Tee, Push-On Joint Ductile Iron..... <i>For Cement Mortar Lining (CML), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Fusion Bonded Epoxy Lining (206N), Add</i> <i>Note: ANSI/AWWA C104/A21.4</i> <i>For Bituminous Or Coal Tar Coating, 1 Mil, Add</i> <i>Note: ANSI/AWWA C151/A21.51</i>	1,844.78 160.75 289.35 120.56	156.66

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-1133 EA 18" Tee, Push-On Joint Ductile Iron.....	2,323.10	209.00
For Cement Mortar Lining (CML), Add	200.64	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	361.16	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	150.48	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1134 EA 20" Tee, Push-On Joint Ductile Iron.....	2,740.72	255.01
For Cement Mortar Lining (CML), Add	235.44	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	423.79	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	176.58	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1135 EA 24" Tee, Push-On Joint Ductile Iron.....	3,584.16	318.74
For Cement Mortar Lining (CML), Add	310.13	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	558.23	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	232.59	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1136 Flanged End x Push-On Joint Ductile Iron Adapters (33 14 13 13-1086)		
33 14 13 13-1137 EA 4" Flanged End x Push-On Joint Adapter, Ductile Iron.....	297.93	106.13
For Cement Mortar Lining (CML), Add	13.71	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	24.69	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	10.29	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1138 EA 6" Flanged End x Push-On Joint Adapter, Ductile Iron.....	365.30	131.40
For Cement Mortar Lining (CML), Add	16.62	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	29.92	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	12.47	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1139 EA 8" Flanged End x Push-On Joint Adapter, Ductile Iron.....	471.21	153.25
For Cement Mortar Lining (CML), Add	23.90	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	43.01	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	17.92	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1140 EA 10" Flanged End x Push-On Joint Adapter, Ductile Iron.....	650.67	223.73
For Cement Mortar Lining (CML), Add	31.17	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	56.10	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	23.38	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1141 EA 12" Flanged End x Push-On Joint Adapter, Ductile Iron.....	782.22	255.73
For Cement Mortar Lining (CML), Add	39.48	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	71.06	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	29.61	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1142 EA 14" Flanged End x Push-On Joint Adapter, Ductile Iron.....	895.13	275.34
For Cement Mortar Lining (CML), Add	47.79	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	86.03	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	35.84	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1143 EA 16" Flanged End x Push-On Joint Adapter, Ductile Iron.....	1,054.57	298.30
For Cement Mortar Lining (CML), Add	60.26	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	108.47	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	45.19	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1144 EA 18" Flanged End x Push-On Joint Adapter, Ductile Iron.....	1,248.87	357.97
For Cement Mortar Lining (CML), Add	70.65	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	127.17	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	52.99	
Note: ANSI/AWWA C151/A21.51		
33 14 13 13-1145 EA 20" Flanged End x Push-On Joint Adapter, Ductile Iron.....	1,444.19	397.74
For Cement Mortar Lining (CML), Add	84.16	
Note: ANSI/AWWA C104/A21.4		
For Fusion Bonded Epoxy Lining (206N), Add	151.48	
Note: ANSI/AWWA C104/A21.4		
For Bituminous Or Coal Tar Coating, 1 Mil, Add	63.12	
Note: ANSI/AWWA C151/A21.51		



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Water Utilities	33 10	
Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-1146 EA 24" Flanged End x Push-On Joint Adapter, Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	1,796.64 110.13 198.23 82.60	458.94
33 14 13 13-1147 EA 30" Flanged End x Push-On Joint Adapter, Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	2,810.93 197.65 355.77 148.24	550.69
33 14 13 13-1148 EA 36" Flanged End x Push-On Joint Adapter, Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	3,863.17 282.01 507.62 211.51	688.37
33 14 13 13-1149 EA 42" Flanged End x Push-On Joint Adapter, Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	4,856.99 365.17 657.31 273.88	795.49
33 14 13 13-1150 EA 48" Flanged End x Push-On Joint Adapter, Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	6,201.66 465.20 837.36 348.90	1,022.74
33 14 13 13-1151 EA 54" Flanged End x Push-On Joint Adapter, Ductile Iron For Cement Mortar Lining (CML), Add Note: ANSI/AWWA C104/A21.4 For Fusion Bonded Epoxy Lining (206N), Add Note: ANSI/AWWA C104/A21.4 For Bituminous Or Coal Tar Coating, 1 Mil, Add Note: ANSI/AWWA C151/A21.51	7,517.66 570.93 1,027.67 428.19	1,193.50
33 14 13 13-1152 Push-On Joint Ductile Iron Pipe And Fitting Restraints <small>(33 14 13 13-1086)</small> Note: Includes ductile iron follower gland, restraint ring and all nuts and bolts. Excludes pipe and fitting.		
33 14 13 13-1153 EA 4" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	33.89	16.52
33 14 13 13-1154 EA 6" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	45.09	21.55
33 14 13 13-1155 EA 8" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	59.09	22.12
33 14 13 13-1156 EA 10" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	68.62	23.49
33 14 13 13-1157 EA 12" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	80.74	26.09
33 14 13 13-1158 EA 14" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	100.21	29.36
33 14 13 13-1159 EA 16" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	117.71	33.56
33 14 13 13-1160 EA 18" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	131.98	36.35
33 14 13 13-1161 EA 20" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	154.48	43.62
33 14 13 13-1162 EA 24" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	182.27	45.30
33 14 13 13-1163 EA 30" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	230.16	50.34
33 14 13 13-1164 EA 36" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	295.17	54.52
33 14 13 13-1165 EA 42" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	360.91	59.66
33 14 13 13-1166 EA 48" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	424.33	67.12
33 14 13 13-1167 EA 54" Pipe And Fitting Restraint, Push-On Joint Ductile Iron	577.15	72.78
33 14 13 13-1168 Push-On Joint Ductile Iron Bell Restraint Harness (MEGALUG® 1700 Series) <small>(33 14 13 13-1086)</small>		
33 14 13 13-1169 EA 4" Bell Restraint Harness, Ductile Iron (MEGALUG® 170400)	179.85	61.02
33 14 13 13-1170 EA 6" Bell Restraint Harness, Ductile Iron (MEGALUG® 170600)	235.52	74.48
33 14 13 13-1171 EA 8" Bell Restraint Harness, Ductile Iron (MEGALUG® 170800)	301.87	90.85
33 14 13 13-1172 EA 10" Bell Restraint Harness, Ductile Iron (MEGALUG® 171000)	447.95	110.83
33 14 13 13-1173 EA 12" Bell Restraint Harness, Ductile Iron (MEGALUG® 171200)	555.02	135.14
33 14 13 13-1174 EA 14" Bell Restraint Harness, Ductile Iron (MEGALUG® 171400)	938.48	164.89
33 14 13 13-1175 EA 16" Bell Restraint Harness, Ductile Iron (MEGALUG® 171600)	1,074.93	201.22
33 14 13 13-1176 EA 18" Bell Restraint Harness, Ductile Iron (MEGALUG® 171800)	1,224.93	245.43
33 14 13 13-1177 EA 20" Bell Restraint Harness, Ductile Iron (MEGALUG® 172000)	1,655.78	299.49
33 14 13 13-1178 EA 24" Bell Restraint Harness, Ductile Iron (MEGALUG® 172400)	2,107.46	365.29
33 14 13 13-1179 EA 30" Bell Restraint Harness, Ductile Iron (MEGALUG® 173000)	3,587.50	445.74
33 14 13 13-1180 EA 36" Bell Restraint Harness, Ductile Iron (MEGALUG® 173600)	5,066.28	543.73
33 14 13 13-1181 EA 42" Bell Restraint Harness, Ductile Iron (MEGALUG® 174200)	9,115.39	663.42
33 14 13 13-1182 EA 48" Bell Restraint Harness, Ductile Iron (MEGALUG® 174800)	11,779.30	809.31
33 14 13 13-1183 Ductile Iron Pipe Repair <small>(33 14 13 13-0001)</small> See CSI section 33 14 13 13-0002 for mechanical joint fittings.		

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 13-1184			Ductile Iron Pipe Repair <small>(33 14 13 13-1183)</small> Note: Includes two transition sleeves, mechanical joint ductile iron sleeve and 16' of ductile iron pipe.		
33 14 13 13-1185	EA		30" Diameter Mechanical Ductile Iron Push Joint	2,434.63	
33 14 13 13-1186	EA		36" Diameter Mechanical Ductile Iron Push Joint	3,075.55	
33 14 13 13-1187	EA		42" Diameter Mechanical Ductile Iron Push Joint	3,858.52	
33 14 13 13-1188	EA		48" Diameter Mechanical Ductile Iron Push Joint	4,834.32	
33 14 13 13-1189	EA		54" Diameter Mechanical Ductile Iron Push Joint	6,963.77	
33 14 13 13-1190			WEKO Seals <small>(33 14 13 13-1183)</small> Note: Internal joint seal.		
33 14 13 13-1191	EA		16" WEKO Internal Joint Seal	1,295.94	160.77
			<i>For Extra Wide Seals, Add</i>	82.18	
33 14 13 13-1192	EA		18" WEKO Internal Joint Seal	1,380.28	169.76
			<i>For Extra Wide Seals, Add</i>	82.86	
33 14 13 13-1193	EA		20" WEKO Internal Joint Seal	1,464.48	178.75
			<i>For Extra Wide Seals, Add</i>	83.54	
33 14 13 13-1194	EA		24" WEKO Internal Joint Seal	1,552.47	193.05
			<i>For Extra Wide Seals, Add</i>	84.63	
33 14 13 13-1195	EA		30" WEKO Internal Joint Seal	1,604.60	207.35
			<i>For Extra Wide Seals, Add</i>	85.71	
33 14 13 13-1196	EA		36" WEKO Internal Joint Seal	1,685.44	225.22
			<i>For Extra Wide Seals, Add</i>	87.06	
33 14 13 13-1197	EA		42" WEKO Internal Joint Seal	1,798.60	246.68
			<i>For Extra Wide Seals, Add</i>	88.69	
33 14 13 13-1198	EA		48" WEKO Internal Joint Seal	1,942.17	264.55
			<i>For Extra Wide Seals, Add</i>	90.04	
33 14 13 13-1199	EA		54" WEKO Internal Joint Seal	2,015.82	278.84
			<i>For Extra Wide Seals, Add</i>	91.12	
33 14 13 13-1200	EA		60" WEKO Internal Joint Seal	2,103.89	300.29
			<i>For Extra Wide Seals, Add</i>	92.75	
33 14 13 23			Plastic Public Water Utility Distribution Piping <small>(33 14 13)</small>		
33 14 13 23-0001			Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Piping <small>(33 14 13 23)</small>		
33 14 13 23-0002			Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe <small>(33 14 13 23-0001)</small>		
33 14 13 23-0003	LF		3/4" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe	2.00	0.71
			<i>For >1,000, Deduct</i>	-0.10	
			<i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	0.04	
33 14 13 23-0004	LF		1" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe	2.20	0.76
			<i>For >1,000, Deduct</i>	-0.11	
			<i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	0.05	
33 14 13 23-0005	LF		1-1/4" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe	2.57	0.83
			<i>For >1,000, Deduct</i>	-0.13	
			<i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	0.08	
33 14 13 23-0006	LF		1-1/2" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe	2.97	0.92
			<i>For >1,000, Deduct</i>	-0.15	
			<i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	0.10	
33 14 13 23-0007	LF		2" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe	3.82	1.02
			<i>For >1,000, Deduct</i>	-0.19	
			<i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	0.19	
33 14 13 23-0008	LF		2-1/2" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe	4.91	1.16
			<i>For >1,000, Deduct</i>	-0.25	
			<i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	0.30	
33 14 13 23-0009	LF		3" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe	6.02	1.32
			<i>For >1,000, Deduct</i>	-0.30	
			<i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	0.41	
33 14 13 23-0010	LF		4" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe	8.51	1.62
			<i>For >1,000, Deduct</i>	-0.43	
			<i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	0.67	
33 14 13 23-0011	LF		6" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe	14.87	2.07
			<i>For >1,000, Deduct</i>	-0.74	
			<i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	1.46	
33 14 13 23-0012	LF		8" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe	23.41	2.78
			<i>For >1,000, Deduct</i>	-1.17	
			<i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	2.47	
33 14 13 23-0013	LF		10" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe	34.89	3.72
			<i>For >1,000, Deduct</i>	-1.74	
			<i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	3.84	
33 14 13 23-0014	LF		12" Class 200, SDR 21 Polyvinyl Chloride (PVC) Pressure Pipe	48.56	5.01
			<i>For >1,000, Deduct</i>	-2.43	
			<i>For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add</i>	5.41	
33 14 13 23-0015			90 Degree Elbows, Class 200, SDR 21 Polyvinyl Chloride (PVC) <small>(33 14 13 23-0001)</small>		
33 14 13 23-0016	EA		3/4", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow	21.41	8.46
33 14 13 23-0017	EA		1", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow	27.05	10.57
33 14 13 23-0018	EA		1-1/4", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow	34.07	13.21
33 14 13 23-0019	EA		1-1/2", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow	50.72	14.62
33 14 13 23-0020	EA		2", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow	54.94	16.38
33 14 13 23-0021	EA		2-1/2", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow	64.95	18.59



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0022 EA 3", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	73.61	21.16
33 14 13 23-0023 EA 4", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	101.71	25.99
33 14 13 23-0024 EA 6", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	145.89	33.02
33 14 13 23-0025 EA 8", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	234.88	43.35
33 14 13 23-0026 EA 10", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	289.46	57.99
33 14 13 23-0027 EA 12", Class 200, SDR 21 Polyvinyl Chloride (PVC) 90 Degree Elbow.....	382.83	78.05
33 14 13 23-0028 45 Degree Elbows, Class 200, SDR 21 Polyvinyl Chloride (PVC) (33 14 13 23-0001)		
33 14 13 23-0029 EA 3/4" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	21.79	8.46
33 14 13 23-0030 EA 1" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	27.32	10.57
33 14 13 23-0031 EA 1-1/4" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	34.23	13.21
33 14 13 23-0032 EA 1-1/2" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	45.75	14.62
33 14 13 23-0033 EA 2" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	55.40	16.38
33 14 13 23-0034 EA 2-1/2" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	66.83	18.59
33 14 13 23-0035 EA 3" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	72.82	21.16
33 14 13 23-0036 EA 4" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	100.00	25.99
33 14 13 23-0037 EA 6" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	142.44	33.02
33 14 13 23-0038 EA 8" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	228.31	43.35
33 14 13 23-0039 EA 10" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	262.22	57.99
33 14 13 23-0040 EA 12" 45 Degree Elbow, Class 200, SDR 21 Polyvinyl Chloride (PVC).....	345.13	78.05
33 14 13 23-0041 Tees Or Wyes, Class 200, SDR 21 Polyvinyl Chloride (PVC) (33 14 13 23-0001)		
33 14 13 23-0042 EA 3/4" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	32.09	12.68
33 14 13 23-0043 EA 1" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	40.50	15.95
33 14 13 23-0044 EA 1-1/4" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	50.77	19.91
33 14 13 23-0045 EA 1-1/2" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	69.96	22.02
33 14 13 23-0046 EA 2" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	79.59	24.49
33 14 13 23-0047 EA 2-1/2" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	92.59	27.92
33 14 13 23-0048 EA 3" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	112.52	31.66
33 14 13 23-0049 EA 4" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	147.50	39.02
33 14 13 23-0050 EA 6" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	242.64	49.60
33 14 13 23-0051 EA 8" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	362.46	65.01
33 14 13 23-0052 EA 10" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	424.89	89.29
33 14 13 23-0053 EA 12" Tees Or Wyes, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	531.93	120.15
33 14 13 23-0054 Couplings, Class 200, SDR 21 Polyvinyl Chloride (PVC) (33 14 13 23-0001)		
33 14 13 23-0055 EA 3/4" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	14.34	5.64
33 14 13 23-0056 EA 1" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	19.35	7.58
33 14 13 23-0057 EA 1-1/4" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	25.82	9.95
33 14 13 23-0058 EA 1-1/2" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	35.77	11.01
33 14 13 23-0059 EA 2" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	39.45	12.24
33 14 13 23-0060 EA 2-1/2" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	44.88	13.92
33 14 13 23-0061 EA 3" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	52.12	15.83
33 14 13 23-0062 EA 4" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	71.25	19.47
33 14 13 23-0063 EA 6" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	101.49	24.81
33 14 13 23-0064 EA 8" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	171.31	32.50
33 14 13 23-0065 EA 10" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	201.76	44.69
33 14 13 23-0066 EA 12" Coupling, Class 200 SDR 21 Polyvinyl Chloride (PVC).....	257.34	60.07
33 14 13 23-0067 Schedule 40 Polyvinyl Chloride (PVC) Pipe And Fittings (33 14 13 23)		
33 14 13 23-0068 Schedule 40 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0067)		
33 14 13 23-0069 LF 3/4" Schedule 40 Polyvinyl Chloride (PVC) Pipe.....	2.19	0.71
For >1,000, Deduct	-0.11	
For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.06	
33 14 13 23-0070 LF 1" Schedule 40 Polyvinyl Chloride (PVC) Pipe.....	2.57	0.76
For >1,000, Deduct	-0.13	
For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.10	
33 14 13 23-0071 LF 1-1/2" Schedule 40 Polyvinyl Chloride (PVC) Pipe.....	3.31	0.92
For >1,000, Deduct	-0.17	
For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.15	
33 14 13 23-0072 LF 2" Schedule 40 Polyvinyl Chloride (PVC) Pipe.....	3.95	1.02
For >1,000, Deduct	-0.20	
For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.21	
33 14 13 23-0073 LF 2-1/2" Schedule 40 Polyvinyl Chloride (PVC) Pipe.....	5.11	1.16
For >1,000, Deduct	-0.26	
For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.33	
33 14 13 23-0074 LF 3" Schedule 40 Polyvinyl Chloride (PVC) Pipe.....	6.15	1.32
For >1,000, Deduct	-0.31	
For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.43	
33 14 13 23-0075 LF 4" Schedule 40 Polyvinyl Chloride (PVC) Pipe.....	8.17	1.62
For >1,000, Deduct	-0.41	
For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.62	
33 14 13 23-0076 LF 6" Schedule 40 Polyvinyl Chloride (PVC) Pipe.....	12.33	2.07
For >1,000, Deduct	-0.62	
For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	1.08	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0077 90 Degree Elbows, Schedule 40 Polyvinyl Chloride (PVC) (33 14 13 23-0067)		
33 14 13 23-0078 EA 3/4" 90 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC)	21.55	8.46
33 14 13 23-0079 EA 1" 90 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC)	27.13	10.57
33 14 13 23-0080 EA 1-1/2" 90 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC)	37.74	14.62
33 14 13 23-0081 EA 2" 90 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC)	42.61	16.38
33 14 13 23-0082 EA 2-1/2" 90 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC)	51.10	18.59
33 14 13 23-0083 EA 3" 90 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC)	58.45	21.16
33 14 13 23-0084 EA 4" 90 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC)	76.34	25.99
33 14 13 23-0085 EA 6" 90 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC)	118.72	33.02
33 14 13 23-0086 45 Degree Elbows, Schedule 40 Polyvinyl Chloride (PVC) (33 14 13 23-0067)		
33 14 13 23-0087 EA 3/4" 45 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC)	21.52	8.46
33 14 13 23-0088 EA 1" 45 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC)	27.10	10.57
33 14 13 23-0089 EA 1-1/2" 45 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC)	37.75	14.62
33 14 13 23-0090 EA 2" 45 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC)	42.48	16.38
33 14 13 23-0091 EA 2-1/2" 45 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC)	50.75	18.59
33 14 13 23-0092 EA 3" 45 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC)	58.04	21.16
33 14 13 23-0093 EA 4" 45 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC)	75.50	25.99
33 14 13 23-0094 EA 6" 45 Degree Elbow, Schedule 40 Polyvinyl Chloride (PVC)	116.05	33.02
33 14 13 23-0095 Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC) (33 14 13 23-0067)		
33 14 13 23-0096 EA 3/4" Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC)	32.23	12.68
33 14 13 23-0097 EA 1" Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC)	40.61	15.95
33 14 13 23-0098 EA 1-1/2" Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC)	56.44	22.02
33 14 13 23-0099 EA 2" Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC)	63.46	24.49
33 14 13 23-0100 EA 2-1/2" Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC)	76.86	27.92
33 14 13 23-0101 EA 3" Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC)	89.37	31.66
33 14 13 23-0102 EA 4" Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC)	111.10	39.02
33 14 13 23-0103 EA 6" Tees Or Wyes, Schedule 40 Polyvinyl Chloride (PVC)	180.64	49.60
33 14 13 23-0104 Couplings, Schedule 40 Polyvinyl Chloride (PVC) (33 14 13 23-0067)		
33 14 13 23-0105 EA 3/4" Coupling, Schedule 40 Polyvinyl Chloride (PVC)	14.41	5.64
33 14 13 23-0106 EA 1" Coupling, Schedule 40 Polyvinyl Chloride (PVC)	19.40	7.58
33 14 13 23-0107 EA 1-1/2" Coupling, Schedule 40 Polyvinyl Chloride (PVC)	28.13	11.01
33 14 13 23-0108 EA 2" Coupling, Schedule 40 Polyvinyl Chloride (PVC)	31.71	12.24
33 14 13 23-0109 EA 2-1/2" Coupling, Schedule 40 Polyvinyl Chloride (PVC)	37.19	13.92
33 14 13 23-0110 EA 3" Coupling, Schedule 40 Polyvinyl Chloride (PVC)	43.21	15.83
33 14 13 23-0111 EA 4" Coupling, Schedule 40 Polyvinyl Chloride (PVC)	53.51	19.47
33 14 13 23-0112 EA 6" Coupling, Schedule 40 Polyvinyl Chloride (PVC)	78.43	24.81
33 14 13 23-0113 Crosses, Schedule 40 Polyvinyl Chloride (PVC) (33 14 13 23-0067)		
33 14 13 23-0114 EA 3/4" Cross, Schedule 40 Polyvinyl Chloride (PVC)	43.11	16.91
33 14 13 23-0115 EA 1" Cross, Schedule 40 Polyvinyl Chloride (PVC)	54.08	21.22
33 14 13 23-0116 EA 1-1/2" Cross, Schedule 40 Polyvinyl Chloride (PVC)	75.23	29.33
33 14 13 23-0117 EA 2" Cross, Schedule 40 Polyvinyl Chloride (PVC)	84.59	32.68
33 14 13 23-0118 EA 2-1/2" Cross, Schedule 40 Polyvinyl Chloride (PVC)	102.43	37.17
33 14 13 23-0119 EA 3" Cross, Schedule 40 Polyvinyl Chloride (PVC)	119.09	42.24
33 14 13 23-0120 EA 4" Cross, Schedule 40 Polyvinyl Chloride (PVC)	148.06	51.98
33 14 13 23-0121 EA 6" Cross, Schedule 40 Polyvinyl Chloride (PVC)	240.52	66.12
33 14 13 23-0122 Schedule 80 Polyvinyl Chloride (PVC) Pipe And Fittings (33 14 13 23)		
33 14 13 23-0123 Schedule 80 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0122)		
33 14 13 23-0124 LF 1" Schedule 80 Polyvinyl Chloride (PVC) Pipe	2.78	0.76
For >1,000, Deduct	-0.14	
For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.13	
33 14 13 23-0125 LF 1-1/2" Schedule 80 Polyvinyl Chloride (PVC) Pipe	3.73	0.92
For >1,000, Deduct	-0.19	
For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.22	
33 14 13 23-0126 LF 2" Schedule 80 Polyvinyl Chloride (PVC) Pipe	4.65	1.02
For >1,000, Deduct	-0.23	
For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.31	
33 14 13 23-0127 LF 2-1/2" Schedule 80 Polyvinyl Chloride (PVC) Pipe	6.02	1.16
For >1,000, Deduct	-0.30	
For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.47	
33 14 13 23-0128 LF 3" Schedule 80 Polyvinyl Chloride (PVC) Pipe	7.43	1.32
For >1,000, Deduct	-0.37	
For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.62	
33 14 13 23-0129 LF 4" Schedule 80 Polyvinyl Chloride (PVC) Pipe	10.13	1.62
For >1,000, Deduct	-0.51	
For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	0.91	
33 14 13 23-0130 LF 6" Schedule 80 Polyvinyl Chloride (PVC) Pipe	16.70	2.07
For >1,000, Deduct	-0.84	
For Coloring Of Polyvinyl Chloride (PVC) Pipe For Reclaimed Water Identification, Add	1.73	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0131 90 Degree Elbows, Schedule 80 Polyvinyl Chloride (PVC) <small>(33 14 13 23-0122)</small>		
33 14 13 23-0132 EA 1" 90 Degree Elbow, Schedule 80 Polyvinyl Chloride (PVC)	28.22	10.57
33 14 13 23-0133 EA 1-1/2" 90 Degree Elbow, Schedule 80 Polyvinyl Chloride (PVC)	37.74	14.62
33 14 13 23-0134 EA 2" 90 Degree Elbow, Schedule 80 Polyvinyl Chloride (PVC)	43.69	16.38
33 14 13 23-0135 EA 2-1/2" 90 Degree Elbow, Schedule 80 Polyvinyl Chloride (PVC)	53.41	18.59
33 14 13 23-0136 EA 3" Schedule 80 Polyvinyl Chloride (PVC) 90 Degree Elbow	60.60	21.16
33 14 13 23-0137 EA 4" Schedule 80 Polyvinyl Chloride (PVC) 90 Degree Elbow	76.85	25.99
33 14 13 23-0138 EA 6" Schedule 80 Polyvinyl Chloride (PVC) 90 Degree Elbow	116.27	33.02
33 14 13 23-0139 45 Degree Elbows, Schedule 80 Polyvinyl Chloride (PVC) <small>(33 14 13 23-0122)</small>		
33 14 13 23-0140 EA 1" Schedule 80 Polyvinyl Chloride (PVC) 45 Degree Elbow	32.68	10.57
33 14 13 23-0141 EA 1-1/2" Schedule 80 Polyvinyl Chloride (PVC) 45 Degree Elbow	42.03	14.62
33 14 13 23-0142 EA 2" Schedule 80 Polyvinyl Chloride (PVC) 45 Degree Elbow	47.82	16.38
33 14 13 23-0143 EA 2-1/2" Schedule 80 Polyvinyl Chloride (PVC) 45 Degree Elbow	61.15	18.59
33 14 13 23-0144 EA 3" Schedule 80 Polyvinyl Chloride (PVC) 45 Degree Elbow	70.68	21.16
33 14 13 23-0145 EA 4" Schedule 80 Polyvinyl Chloride (PVC) 45 Degree Elbow	97.11	25.99
33 14 13 23-0146 EA 6" Schedule 80 Polyvinyl Chloride (PVC) 45 Degree Elbow	114.92	33.02
33 14 13 23-0147 Tees Or Wyes, Schedule 80 Polyvinyl Chloride (PVC) <small>(33 14 13 23-0122)</small>		
33 14 13 23-0148 EA 1" Schedule 80 Polyvinyl Chloride (PVC) Tees Or Wyes	42.89	15.95
33 14 13 23-0149 EA 1-1/2" Schedule 80 Polyvinyl Chloride (PVC) Tees Or Wyes	63.36	22.02
33 14 13 23-0150 EA 2" Schedule 80 Polyvinyl Chloride (PVC) Tees Or Wyes	71.71	24.49
33 14 13 23-0151 EA 2-1/2" Schedule 80 Polyvinyl Chloride (PVC) Tees Or Wyes	81.23	27.92
33 14 13 23-0152 EA 3" Schedule 80 Polyvinyl Chloride (PVC) Tees Or Wyes	93.55	31.66
33 14 13 23-0153 EA 4" Schedule 80 Polyvinyl Chloride (PVC) Tees Or Wyes	114.12	39.02
33 14 13 23-0154 EA 6" Schedule 80 Polyvinyl Chloride (PVC) Tees Or Wyes	180.53	49.60
33 14 13 23-0155 Couplings, Schedule 80 Polyvinyl Chloride (PVC) <small>(33 14 13 23-0122)</small>		
33 14 13 23-0156 EA 1" Schedule 80 Polyvinyl Chloride (PVC) Coupling	21.03	7.58
33 14 13 23-0157 EA 1-1/2" Schedule 80 Polyvinyl Chloride (PVC) Coupling	30.93	11.01
33 14 13 23-0158 EA 2" Schedule 80 Polyvinyl Chloride (PVC) Coupling	34.34	12.24
33 14 13 23-0159 EA 2-1/2" Schedule 80 Polyvinyl Chloride (PVC) Coupling	43.95	13.92
33 14 13 23-0160 EA 3" Schedule 80 Polyvinyl Chloride (PVC) Coupling	50.02	15.83
33 14 13 23-0161 EA 4" Schedule 80 Polyvinyl Chloride (PVC) Coupling	61.80	19.47
33 14 13 23-0162 EA 6" Schedule 80 Polyvinyl Chloride (PVC) Coupling	90.00	24.81
33 14 13 23-0163 Crosses, Schedule 80 Polyvinyl Chloride (PVC) <small>(33 14 13 23-0122)</small>		
33 14 13 23-0164 EA 1" Schedule 80 Polyvinyl Chloride (PVC) Cross	57.10	21.22
33 14 13 23-0165 EA 1-1/2" Schedule 80 Polyvinyl Chloride (PVC) Cross	84.42	29.33
33 14 13 23-0166 EA 2" Schedule 80 Polyvinyl Chloride (PVC) Cross	95.55	32.68
33 14 13 23-0167 EA 2-1/2" Schedule 80 Polyvinyl Chloride (PVC) Cross	108.24	37.17
33 14 13 23-0168 EA 3" Schedule 80 Polyvinyl Chloride (PVC) Cross	124.64	42.24
33 14 13 23-0169 EA 4" Schedule 80 Polyvinyl Chloride (PVC) Cross	152.06	51.98
33 14 13 23-0170 EA 6" Schedule 80 Polyvinyl Chloride (PVC) Cross	240.38	66.12
33 14 13 23-0171 AWWA C900/C905 Polyvinyl Chloride (PVC) Pipe <small>(33 14 13 23)</small>		
Note: Includes hub on one end of pipe. C900 is available in blue, white, purple or green.		
33 14 13 23-0172 AWWA C900, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe <small>(33 14 13 23-0171)</small>		
33 14 13 23-0173 LF 4" AWWA C900, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	8.38	3.13
33 14 13 23-0174 LF 6" AWWA C900, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	11.89	3.80
33 14 13 23-0175 LF 8" AWWA C900, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	15.94	4.28
33 14 13 23-0176 LF 10" AWWA C900, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	20.63	4.76
33 14 13 23-0177 LF 12" AWWA C900, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	26.39	5.32
33 14 13 23-0178 AWWA C900, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe <small>(33 14 13 23-0171)</small>		
33 14 13 23-0179 LF 4" AWWA C900, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	9.13	3.13
33 14 13 23-0180 LF 6" AWWA C900, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	13.45	3.80
33 14 13 23-0181 LF 8" AWWA C900, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	18.57	4.28
33 14 13 23-0182 LF 10" AWWA C900, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	24.72	4.76
33 14 13 23-0183 LF 12" AWWA C900, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	32.10	5.32
33 14 13 23-0184 AWWA C900, DR 14, PC 305 Polyvinyl Chloride (PVC) Pipe <small>(33 14 13 23-0171)</small>		
33 14 13 23-0185 LF 4" AWWA C900, DR 14, PC 305 Polyvinyl Chloride (PVC) Pipe	9.88	3.13
33 14 13 23-0186 LF 6" AWWA C900, DR 14, PC 305 Polyvinyl Chloride (PVC) Pipe	15.00	3.80
33 14 13 23-0187 LF 8" AWWA C900, DR 14, PC 305 Polyvinyl Chloride (PVC) Pipe	21.20	4.28
33 14 13 23-0188 LF 10" AWWA C900, DR 14, PC 305 Polyvinyl Chloride (PVC) Pipe	28.72	4.76
33 14 13 23-0189 LF 12" AWWA C900, DR 14, PC 305 Polyvinyl Chloride (PVC) Pipe	37.81	5.32
33 14 13 23-0190 AWWA C905, DR 51, PC 80 Polyvinyl Chloride (PVC) Pipe <small>(33 14 13 23-0171)</small>		
33 14 13 23-0191 LF 18" AWWA C905, DR 51, PC 80 Polyvinyl Chloride (PVC) Pipe	33.53	7.98

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0192 LF 20" AWWA C905, DR 51, PC 80 Polyvinyl Chloride (PVC) Pipe	40.66	9.50
33 14 13 23-0193 LF 24" AWWA C905, DR 51, PC 80 Polyvinyl Chloride (PVC) Pipe	53.38	11.41
33 14 13 23-0194 LF 30" AWWA C905, DR 51, PC 80 Polyvinyl Chloride (PVC) Pipe	74.39	13.31
33 14 13 23-0195 LF 36" AWWA C905, DR 51, PC 80 Polyvinyl Chloride (PVC) Pipe	99.98	15.21
33 14 13 23-0196 LF 42" AWWA C905, DR 51, PC 80 Polyvinyl Chloride (PVC) Pipe	124.00	16.16
33 14 13 23-0197 LF 48" AWWA C905, DR 51, PC 80 Polyvinyl Chloride (PVC) Pipe	154.36	17.39
33 14 13 23-0198 AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0171)		
33 14 13 23-0199 LF 14" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	24.79	5.98
33 14 13 23-0200 LF 16" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	30.40	6.65
33 14 13 23-0201 LF 18" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	37.48	7.98
33 14 13 23-0202 LF 20" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	45.79	9.50
33 14 13 23-0203 LF 24" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	61.30	11.41
33 14 13 23-0204 LF 30" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	85.75	13.31
33 14 13 23-0205 LF 36" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	115.19	15.21
33 14 13 23-0206 LF 42" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	149.30	16.16
33 14 13 23-0207 LF 48" AWWA C905, DR 41, PC 100 Polyvinyl Chloride (PVC) Pipe	187.19	17.39
33 14 13 23-0208 AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0171)		
33 14 13 23-0209 LF 14" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	27.83	5.98
33 14 13 23-0210 LF 16" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	34.62	6.65
33 14 13 23-0211 LF 18" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	42.73	7.98
33 14 13 23-0212 LF 20" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	52.60	9.50
33 14 13 23-0213 LF 24" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	71.08	11.41
33 14 13 23-0214 LF 30" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	100.44	13.31
33 14 13 23-0215 LF 36" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	136.62	15.21
33 14 13 23-0216 LF 42" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	174.69	16.16
33 14 13 23-0217 LF 48" AWWA C905, DR 32.5, PC 125 Polyvinyl Chloride (PVC) Pipe	220.32	17.39
33 14 13 23-0218 AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0171)		
33 14 13 23-0219 LF 14" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	33.03	5.98
33 14 13 23-0220 LF 16" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	40.80	6.65
33 14 13 23-0221 LF 18" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	50.68	7.98
33 14 13 23-0222 LF 20" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	62.21	9.50
33 14 13 23-0223 LF 24" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	84.93	11.41
33 14 13 23-0224 LF 30" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	122.17	13.31
33 14 13 23-0225 LF 36" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	170.05	15.21
33 14 13 23-0226 LF 42" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	223.71	16.16
33 14 13 23-0227 LF 48" AWWA C905, DR 25, PC 165 Polyvinyl Chloride (PVC) Pipe	286.11	17.39
33 14 13 23-0228 AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0171)		
33 14 13 23-0229 LF 14" AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe	36.94	5.98
33 14 13 23-0230 LF 16" AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe	45.89	6.65
33 14 13 23-0231 LF 18" AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe	57.10	7.98
33 14 13 23-0232 LF 20" AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe	70.20	9.50
33 14 13 23-0233 LF 24" AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe	96.42	11.41
33 14 13 23-0234 LF 30" AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe	139.86	13.31
33 14 13 23-0235 LF 36" AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe	195.88	15.21
33 14 13 23-0236 LF 42" AWWA C905, DR 21, PC 200 Polyvinyl Chloride (PVC) Pipe	259.11	16.16
33 14 13 23-0237 AWWA C905, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe (33 14 13 23-0171)		
33 14 13 23-0238 LF 14" AWWA C905, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	40.75	5.98
33 14 13 23-0239 LF 16" AWWA C905, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	50.83	6.65
33 14 13 23-0240 LF 18" AWWA C905, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	63.33	7.98
33 14 13 23-0241 LF 20" AWWA C905, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	77.97	9.50
33 14 13 23-0242 LF 24" AWWA C905, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	107.60	11.41
33 14 13 23-0243 LF 30" AWWA C905, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	157.06	13.31
33 14 13 23-0244 LF 36" AWWA C905, DR 18, PC 235 Polyvinyl Chloride (PVC) Pipe	221.01	15.21
33 14 13 23-0245 AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) Fittings (33 14 13 23)		
Note: Includes rubber gaskets.		
33 14 13 23-0246 90 Degree Elbows, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) (33 14 13 23-0245)		
33 14 13 23-0247 EA 4" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	178.55	10.57
For DR 25, Deduct	-9.44	
33 14 13 23-0248 EA 6" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	367.39	11.90
For DR 25, Deduct	-20.62	
33 14 13 23-0249 EA 8" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	552.73	13.21
For DR 25, Deduct	-31.58	
33 14 13 23-0250 EA 10" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	843.68	20.87
For DR 25, Deduct	-48.12	
33 14 13 23-0251 EA 12" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	944.37	34.78
For DR 25, Deduct	-52.49	



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Water Utilities	33 10	
Water Utility Transmission and Distribution	33 14	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0252 EA 14" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,648.31	43.47
For DR 25, Deduct	-93.68	
33 14 13 23-0253 EA 16" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,966.99	52.16
For DR 25, Deduct	-111.76	
33 14 13 23-0254 EA 18" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,379.33	69.55
For DR 25, Deduct	-194.41	
33 14 13 23-0255 EA 20" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,159.82	86.94
For DR 25, Deduct	-239.16	
33 14 13 23-0256 EA 24" 90 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	6,910.71	117.36
For DR 25, Deduct	-400.56	
33 14 13 23-0257 45 Degree Elbows, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) (33 14 13 23-0245)		
33 14 13 23-0258 EA 4" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	158.00	10.57
For DR 25, Deduct	-8.21	
33 14 13 23-0259 EA 6" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	274.18	11.90
For DR 25, Deduct	-15.02	
33 14 13 23-0260 EA 8" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	347.79	13.21
For DR 25, Deduct	-19.28	
33 14 13 23-0261 EA 10" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	491.23	20.87
For DR 25, Deduct	-26.97	
33 14 13 23-0262 EA 12" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	655.39	34.78
For DR 25, Deduct	-35.15	
33 14 13 23-0263 EA 14" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,264.69	43.47
For DR 25, Deduct	-70.66	
33 14 13 23-0264 EA 16" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,603.57	52.16
For DR 25, Deduct	-89.95	
33 14 13 23-0265 EA 18" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	2,771.71	69.55
For DR 25, Deduct	-157.96	
33 14 13 23-0266 EA 20" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,442.49	86.94
For DR 25, Deduct	-196.12	
33 14 13 23-0267 EA 24" 45 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,859.12	117.36
For DR 25, Deduct	-277.46	
33 14 13 23-0268 22-1/2 Degree Elbows, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) (33 14 13 23-0245)		
33 14 13 23-0269 EA 4" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	155.50	10.57
For DR 25, Deduct	-8.06	
33 14 13 23-0270 EA 6" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	274.18	11.90
For DR 25, Deduct	-15.02	
33 14 13 23-0271 EA 8" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	347.80	13.21
For DR 25, Deduct	-19.28	
33 14 13 23-0272 EA 10" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	491.23	20.87
For DR 25, Deduct	-26.97	
33 14 13 23-0273 EA 12" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	655.40	34.78
For DR 25, Deduct	-35.15	
33 14 13 23-0274 EA 14" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,261.20	41.73
For DR 25, Deduct	-70.66	
33 14 13 23-0275 EA 16" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,603.56	52.16
For DR 25, Deduct	-89.95	
33 14 13 23-0276 EA 18" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	2,771.71	69.55
For DR 25, Deduct	-157.96	
33 14 13 23-0277 EA 20" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,442.49	86.94
For DR 25, Deduct	-196.12	
33 14 13 23-0278 EA 24" 22-1/2 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,859.12	117.36
For DR 25, Deduct	-277.46	
33 14 13 23-0279 11-1/4 Degree Elbows, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) (33 14 13 23-0245)		
33 14 13 23-0280 EA 4" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	137.10	10.57
For DR 25, Deduct	-6.96	
33 14 13 23-0281 EA 6" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	274.18	11.90
For DR 25, Deduct	-15.02	
33 14 13 23-0282 EA 8" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	347.80	13.21
For DR 25, Deduct	-19.28	
33 14 13 23-0283 EA 10" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	491.23	20.87
For DR 25, Deduct	-26.97	
33 14 13 23-0284 EA 12" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	655.40	34.78
For DR 25, Deduct	-35.15	
33 14 13 23-0285 EA 14" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,261.20	41.73
For DR 25, Deduct	-70.66	
33 14 13 23-0286 EA 16" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,603.56	52.16
For DR 25, Deduct	-89.95	
33 14 13 23-0287 EA 18" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	2,771.71	69.55
For DR 25, Deduct	-157.96	
33 14 13 23-0288 EA 20" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,442.49	86.94
For DR 25, Deduct	-196.12	
33 14 13 23-0289 EA 24" 11-1/4 Degree Elbow, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,859.12	117.36
For DR 25, Deduct	-277.46	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0290			Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)		
			<small>(33 14 13 23-0245)</small>		
33 14 13 23-0291	EA		4" Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	212.33	11.90
			<i>For DR 25, Deduct</i>	-11.31	
33 14 13 23-0292	EA		6" Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	411.89	13.21
			<i>For DR 25, Deduct</i>	-23.13	
33 14 13 23-0293	EA		8" Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	575.41	14.98
			<i>For DR 25, Deduct</i>	-32.73	
33 14 13 23-0294	EA		10" Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,186.95	26.08
			<i>For DR 25, Deduct</i>	-68.09	
33 14 13 23-0295	EA		12" Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,444.71	52.16
			<i>For DR 25, Deduct</i>	-80.43	
33 14 13 23-0296	EA		14" Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	2,614.94	65.20
			<i>For DR 25, Deduct</i>	-149.07	
33 14 13 23-0297	EA		16" Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,239.34	78.25
			<i>For DR 25, Deduct</i>	-184.97	
33 14 13 23-0298	EA		18" Tee, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,086.18	104.33
			<i>For DR 25, Deduct</i>	-232.65	
33 14 13 23-0299	EA		20" Tee, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,905.99	130.40
			<i>For DR 25, Deduct</i>	-278.71	
33 14 13 23-0300	EA		24" Tee, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	6,748.71	88.67
			<i>For DR 25, Deduct</i>	-394.28	
33 14 13 23-0301			Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)		
			<small>(33 14 13 23-0245)</small>		
33 14 13 23-0302	EA		6" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	409.38	17.18
			<i>For DR 25, Deduct</i>	-22.50	
33 14 13 23-0303	EA		8" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	557.75	18.50
			<i>For DR 25, Deduct</i>	-31.25	
33 14 13 23-0304	EA		8" x 6" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	571.67	19.16
			<i>For DR 25, Deduct</i>	-32.00	
33 14 13 23-0305	EA		10" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	5,717.90	26.08
			<i>For DR 25, Deduct</i>	-339.94	
33 14 13 23-0306	EA		10" x 6" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,005.63	26.74
			<i>For DR 25, Deduct</i>	-57.13	
33 14 13 23-0307	EA		10" x 8" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,076.05	27.38
			<i>For DR 25, Deduct</i>	-61.28	
33 14 13 23-0308	EA		12" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,138.63	39.99
			<i>For DR 25, Deduct</i>	-63.52	
33 14 13 23-0309	EA		12" x 6" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,308.09	40.64
			<i>For DR 25, Deduct</i>	-73.61	
33 14 13 23-0310	EA		12" x 8" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,388.09	41.30
			<i>For DR 25, Deduct</i>	-78.33	
33 14 13 23-0311	EA		12" x 10" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,413.62	45.20
			<i>For DR 25, Deduct</i>	-79.39	
33 14 13 23-0312	EA		14" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	2,151.15	46.95
			<i>For DR 25, Deduct</i>	-123.44	
33 14 13 23-0313	EA		14" x 6" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	2,237.93	47.59
			<i>For DR 25, Deduct</i>	-128.56	
33 14 13 23-0314	EA		14" x 8" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	2,324.91	48.25
			<i>For DR 25, Deduct</i>	-133.70	
33 14 13 23-0315	EA		14" x 10" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	2,417.92	52.16
			<i>For DR 25, Deduct</i>	-138.82	
33 14 13 23-0316	EA		14" x 12" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	2,517.35	59.11
			<i>For DR 25, Deduct</i>	-143.95	
33 14 13 23-0317	EA		16" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	2,684.81	57.38
			<i>For DR 25, Deduct</i>	-154.20	
33 14 13 23-0318	EA		16" x 6" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	2,770.25	57.38
			<i>For DR 25, Deduct</i>	-159.33	
33 14 13 23-0319	EA		16" x 8" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	2,857.03	58.03
			<i>For DR 25, Deduct</i>	-164.46	
33 14 13 23-0320	EA		16" x 10" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	2,943.80	58.69
			<i>For DR 25, Deduct</i>	-169.59	
33 14 13 23-0321	EA		16" x 12" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,050.97	69.55
			<i>For DR 25, Deduct</i>	-174.71	
33 14 13 23-0322	EA		16" x 14" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,143.40	73.03
			<i>For DR 25, Deduct</i>	-179.84	
33 14 13 23-0323	EA		18" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,317.21	74.77
			<i>For DR 25, Deduct</i>	-190.06	
33 14 13 23-0324	EA		18" x 6" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,404.58	75.42
			<i>For DR 25, Deduct</i>	-195.23	
33 14 13 23-0325	EA		18" x 8" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,491.36	76.06
			<i>For DR 25, Deduct</i>	-200.35	
33 14 13 23-0326	EA		18" x 10" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,584.64	79.98
			<i>For DR 25, Deduct</i>	-205.48	
33 14 13 23-0327	EA		18" x 12" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,683.98	86.94
			<i>For DR 25, Deduct</i>	-210.61	
33 14 13 23-0328	EA		18" x 14" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,775.82	90.41
			<i>For DR 25, Deduct</i>	-215.70	
33 14 13 23-0329	EA		18" x 16" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,892.37	95.63
			<i>For DR 25, Deduct</i>	-222.07	



Utilities	33	CS
Water Utilities	33 10	
Water Utility Transmission and Distribution	33 14	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0330	EA		20" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,207.79	92.15
			<i>For DR 25, Deduct</i>	-241.41	
33 14 13 23-0331	EA		20" x 6" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,355.02	92.81
			<i>For DR 25, Deduct</i>	-250.16	
33 14 13 23-0332	EA		20" x 8" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,412.90	93.45
			<i>For DR 25, Deduct</i>	-253.56	
33 14 13 23-0333	EA		20" x 10" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,477.38	97.37
			<i>For DR 25, Deduct</i>	-256.96	
33 14 13 23-0334	EA		20" x 12" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,547.88	104.33
			<i>For DR 25, Deduct</i>	-260.35	
33 14 13 23-0335	EA		20" x 14" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,646.59	107.80
			<i>For DR 25, Deduct</i>	-265.86	
33 14 13 23-0336	EA		20" x 16" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,748.80	113.02
			<i>For DR 25, Deduct</i>	-271.37	
33 14 13 23-0337	EA		20" x 18" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,827.39	121.72
			<i>For DR 25, Deduct</i>	-275.04	
33 14 13 23-0338	EA		24" x 4" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,951.53	122.58
			<i>For DR 25, Deduct</i>	-282.38	
33 14 13 23-0339	EA		24" x 6" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	5,014.06	123.23
			<i>For DR 25, Deduct</i>	-286.06	
33 14 13 23-0340	EA		24" x 8" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	5,076.59	123.89
			<i>For DR 25, Deduct</i>	-289.73	
33 14 13 23-0341	EA		24" x 10" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	5,333.33	127.79
			<i>For DR 25, Deduct</i>	-304.66	
33 14 13 23-0342	EA		24" x 12" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	5,596.16	134.75
			<i>For DR 25, Deduct</i>	-319.60	
33 14 13 23-0343	EA		24" x 14" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	5,852.06	138.23
			<i>For DR 25, Deduct</i>	-334.54	
33 14 13 23-0344	EA		24" x 16" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	6,111.43	143.45
			<i>For DR 25, Deduct</i>	-349.47	
33 14 13 23-0345	EA		24" x 18" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	6,377.76	152.14
			<i>For DR 25, Deduct</i>	-364.41	
33 14 13 23-0346	EA		24" x 20" Reducing Tees Or Wyes, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	6,644.08	160.83
			<i>For DR 25, Deduct</i>	-379.34	
33 14 13 23-0347			Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) <small>(33 14 13 23-0245)</small>		
			<small>(0245)</small>		
33 14 13 23-0348	EA		4" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	293.70	21.14
			<i>For DR 25, Deduct</i>	-15.08	
33 14 13 23-0349	EA		6" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	530.06	23.78
			<i>For DR 25, Deduct</i>	-28.95	
33 14 13 23-0350	EA		8" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	735.01	26.43
			<i>For DR 25, Deduct</i>	-40.93	
33 14 13 23-0351	EA		10" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,501.35	41.73
			<i>For DR 25, Deduct</i>	-85.07	
33 14 13 23-0352	EA		12" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,780.14	52.16
			<i>For DR 25, Deduct</i>	-100.55	
33 14 13 23-0353	EA		14" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	3,244.93	69.55
			<i>For DR 25, Deduct</i>	-186.35	
33 14 13 23-0354	EA		16" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	4,026.83	86.94
			<i>For DR 25, Deduct</i>	-231.19	
33 14 13 23-0355	EA		18" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	5,125.85	139.09
			<i>For DR 25, Deduct</i>	-290.86	
33 14 13 23-0356	EA		20" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	6,154.31	173.87
			<i>For DR 25, Deduct</i>	-348.39	
33 14 13 23-0357	EA		24" Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	8,683.16	234.73
			<i>For DR 25, Deduct</i>	-492.82	
33 14 13 23-0358			Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) <small>(33 14 13 23-0245)</small>		
			<small>(33 14 13 23-0245)</small>		
33 14 13 23-0359	EA		6" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	514.08	22.47
			<i>For DR 25, Deduct</i>	-28.15	
33 14 13 23-0360	EA		8" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	699.30	23.78
			<i>For DR 25, Deduct</i>	-39.10	
33 14 13 23-0361	EA		8" x 6" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	717.05	25.10
			<i>For DR 25, Deduct</i>	-40.01	
33 14 13 23-0362	EA		10" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,076.12	31.30
			<i>For DR 25, Deduct</i>	-60.81	
33 14 13 23-0363	EA		10" x 6" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,255.57	32.60
			<i>For DR 25, Deduct</i>	-71.42	
33 14 13 23-0364	EA		10" x 8" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,379.67	33.90
			<i>For DR 25, Deduct</i>	-78.71	
33 14 13 23-0365	EA		12" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,414.15	45.20
			<i>For DR 25, Deduct</i>	-79.42	
33 14 13 23-0366	EA		12" x 6" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,626.46	46.51
			<i>For DR 25, Deduct</i>	-92.01	
33 14 13 23-0367	EA		12" x 8" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,727.46	47.81
			<i>For DR 25, Deduct</i>	-97.91	
33 14 13 23-0368	EA		12" x 10" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	1,765.16	55.64
			<i>For DR 25, Deduct</i>	-99.23	
33 14 13 23-0369	EA		14" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC).....	2,675.90	52.16
			<i>For DR 25, Deduct</i>	-154.29	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0370	EA	14" x 6" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	2,785.01	53.46
		<i>For DR 25, Deduct</i>	-160.68	
33 14 13 23-0371	EA	14" x 8" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	2,895.31	54.77
		<i>For DR 25, Deduct</i>	-167.15	
33 14 13 23-0372	EA	14" x 10" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,018.19	62.59
		<i>For DR 25, Deduct</i>	-173.58	
33 14 13 23-0373	EA	14" x 12" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,152.44	76.50
		<i>For DR 25, Deduct</i>	-179.97	
33 14 13 23-0374	EA	16" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,337.22	62.59
		<i>For DR 25, Deduct</i>	-192.72	
33 14 13 23-0375	EA	16" x 6" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,447.79	63.90
		<i>For DR 25, Deduct</i>	-199.20	
33 14 13 23-0376	EA	16" x 8" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,557.17	65.20
		<i>For DR 25, Deduct</i>	-205.61	
33 14 13 23-0377	EA	16" x 10" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,679.96	73.03
		<i>For DR 25, Deduct</i>	-212.03	
33 14 13 23-0378	EA	16" x 12" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,738.13	86.94
		<i>For DR 25, Deduct</i>	-213.86	
33 14 13 23-0379	EA	16" x 14" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,934.79	93.89
		<i>For DR 25, Deduct</i>	-224.82	
33 14 13 23-0380	EA	18" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	4,120.10	79.98
		<i>For DR 25, Deduct</i>	-237.61	
33 14 13 23-0381	EA	18" x 6" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	4,230.40	81.29
		<i>For DR 25, Deduct</i>	-244.07	
33 14 13 23-0382	EA	18" x 8" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	4,339.95	82.59
		<i>For DR 25, Deduct</i>	-250.49	
33 14 13 23-0383	EA	18" x 10" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	4,461.14	90.41
		<i>For DR 25, Deduct</i>	-256.82	
33 14 13 23-0384	EA	18" x 12" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	4,596.65	104.33
		<i>For DR 25, Deduct</i>	-263.28	
33 14 13 23-0385	EA	18" x 14" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	4,717.00	111.28
		<i>For DR 25, Deduct</i>	-269.67	
33 14 13 23-0386	EA	18" x 16" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	4,870.32	121.72
		<i>For DR 25, Deduct</i>	-277.61	
33 14 13 23-0387	EA	20" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	5,224.60	97.37
		<i>For DR 25, Deduct</i>	-301.79	
33 14 13 23-0388	EA	20" x 6" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	5,409.31	98.68
		<i>For DR 25, Deduct</i>	-312.72	
33 14 13 23-0389	EA	20" x 8" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	5,483.17	99.98
		<i>For DR 25, Deduct</i>	-316.99	
33 14 13 23-0390	EA	20" x 10" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	5,569.30	107.80
		<i>For DR 25, Deduct</i>	-321.22	
33 14 13 23-0391	EA	20" x 12" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	5,667.62	121.72
		<i>For DR 25, Deduct</i>	-325.45	
33 14 13 23-0392	EA	20" x 14" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	5,795.44	128.66
		<i>For DR 25, Deduct</i>	-332.29	
33 14 13 23-0393	EA	20" x 16" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	5,932.49	139.09
		<i>For DR 25, Deduct</i>	-339.26	
33 14 13 23-0394	EA	20" x 18" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	6,043.55	156.48
		<i>For DR 25, Deduct</i>	-343.83	
33 14 13 23-0395	EA	24" x 4" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	6,104.58	127.79
		<i>For DR 25, Deduct</i>	-350.94	
33 14 13 23-0396	EA	24" x 6" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	6,218.07	129.10
		<i>For DR 25, Deduct</i>	-357.59	
33 14 13 23-0397	EA	24" x 8" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	6,297.51	130.40
		<i>For DR 25, Deduct</i>	-362.20	
33 14 13 23-0398	EA	24" x 10" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	6,623.97	138.23
		<i>For DR 25, Deduct</i>	-380.85	
33 14 13 23-0399	EA	24" x 12" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	6,962.71	152.14
		<i>For DR 25, Deduct</i>	-399.51	
33 14 13 23-0400	EA	24" x 14" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	7,287.47	159.09
		<i>For DR 25, Deduct</i>	-418.16	
33 14 13 23-0401	EA	24" x 16" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	7,620.53	169.53
		<i>For DR 25, Deduct</i>	-436.89	
33 14 13 23-0402	EA	24" x 18" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	7,965.50	186.91
		<i>For DR 25, Deduct</i>	-455.50	
33 14 13 23-0403	EA	24" x 20" Reducing Cross, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	8,311.79	204.30
		<i>For DR 25, Deduct</i>	-474.19	
33 14 13 23-0404		Couplings, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) (33 14 13 23-0245)		
33 14 13 23-0405	EA	4" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	105.91	10.57
		<i>For DR 25, Deduct</i>	-5.09	
33 14 13 23-0406	EA	6" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	198.77	11.90
		<i>For DR 25, Deduct</i>	-10.50	
33 14 13 23-0407	EA	8" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	239.44	13.21
		<i>For DR 25, Deduct</i>	-12.78	
33 14 13 23-0408	EA	10" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	339.70	20.87
		<i>For DR 25, Deduct</i>	-17.88	
33 14 13 23-0409	EA	12" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	541.76	26.08
		<i>For DR 25, Deduct</i>	-29.37	
33 14 13 23-0410	EA	14" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	941.99	34.78
		<i>For DR 25, Deduct</i>	-52.34	



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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0411 EA 16" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	1,115.45	43.47
For DR 25, Deduct	-61.71	
33 14 13 23-0412 EA 18" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	2,677.15	69.55
For DR 25, Deduct	-152.28	
33 14 13 23-0413 EA 20" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	2,999.52	86.94
For DR 25, Deduct	-169.54	
33 14 13 23-0414 EA 24" Coupling, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	4,224.39	117.36
For DR 25, Deduct	-239.38	
33 14 13 23-0415 Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC) (33 14 13 23-0245)		
33 14 13 23-0416 EA 4" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	131.73	10.57
For DR 25, Deduct	-6.64	
33 14 13 23-0417 EA 6" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	179.39	11.90
For DR 25, Deduct	-9.34	
33 14 13 23-0418 EA 8" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	261.51	13.21
For DR 25, Deduct	-14.10	
33 14 13 23-0419 EA 10" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	356.91	20.87
For DR 25, Deduct	-18.91	
33 14 13 23-0420 EA 12" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	571.69	34.78
For DR 25, Deduct	-30.13	
33 14 13 23-0421 EA 14" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	1,527.42	41.73
For DR 25, Deduct	-86.64	
33 14 13 23-0422 EA 16" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	2,068.46	52.16
For DR 25, Deduct	-117.85	
33 14 13 23-0423 EA 18" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	2,547.58	69.55
For DR 25, Deduct	-144.51	
33 14 13 23-0424 EA 20" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	3,042.92	86.94
For DR 25, Deduct	-172.14	
33 14 13 23-0425 EA 24" Flanged End x Gasket Joint Adapter, AWWA C900/905, DR 18, PC 235 Polyvinyl Chloride (PVC)	4,133.85	117.36
For DR 25, Deduct	-233.95	
33 14 13 23-0426 AWWA C906, High Density Polyethylene (HDPE) Pressure Piping (33 14 13 23)		
Note: ASTM D3350 pipe, ASTM D2657 heat fusion.		
33 14 13 23-0427 High Density Polyethylene (HDPE) Pressure Pipe (33 14 13 23-0426)		
33 14 13 23-0428 LF 3" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe.....	6.37	2.47
For SDR 19, Add	0.12	
For SDR 17, Add	0.31	
For SDR 15.5, Add	0.45	
For SDR 13.5, Add	0.70	
For SDR 11, Add	1.13	
33 14 13 23-0429 LF 4" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe.....	8.88	3.13
For SDR 26, Deduct	-0.48	
For SDR 19, Add	0.23	
For SDR 17, Add	0.58	
For SDR 15.5, Add	0.85	
For SDR 13.5, Add	1.32	
For SDR 11, Add	2.13	
33 14 13 23-0430 LF 6" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe.....	13.21	3.80
For SDR 26, Deduct	-1.03	
For SDR 19, Add	0.50	
For SDR 17, Add	1.24	
For SDR 15.5, Add	1.82	
For SDR 13.5, Add	2.84	
For SDR 11, Add	4.58	
33 14 13 23-0431 LF 8" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe.....	18.07	4.28
For SDR 26, Deduct	-1.74	
For SDR 19, Add	0.86	
For SDR 17, Add	2.11	
For SDR 15.5, Add	3.09	
For SDR 13.5, Add	4.83	
For SDR 11, Add	7.77	
33 14 13 23-0432 LF 10" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe.....	24.28	4.76
For SDR 26, Deduct	-2.71	
For SDR 19, Add	1.33	
For SDR 17, Add	3.28	
For SDR 15.5, Add	4.81	
For SDR 13.5, Add	7.51	
For SDR 11, Add	12.08	
33 14 13 23-0433 LF 12" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe.....	31.86	53.23
For SDR 26, Deduct	-3.91	
For SDR 19, Add	1.92	
For SDR 17, Add	4.74	
For SDR 15.5, Add	6.93	
For SDR 13.5, Add	10.82	
For SDR 11, Add	17.42	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0434 LF 14" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe.....	36.94	5.98
For SDR 26, Deduct	-4.59	
For SDR 19, Add	2.25	
For SDR 17, Add	5.57	
For SDR 15.5, Add	8.15	
For SDR 13.5, Add	12.72	
For SDR 11, Add	20.48	
33 14 13 23-0435 LF 16" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe.....	46.04	6.65
For SDR 26, Deduct	-6.00	
For SDR 19, Add	2.95	
For SDR 17, Add	7.27	
For SDR 15.5, Add	10.65	
For SDR 13.5, Add	16.62	
For SDR 11, Add	26.76	
33 14 13 23-0436 LF 18" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe.....	57.37	7.98
For SDR 26, Deduct	-7.58	
For SDR 19, Add	3.72	
For SDR 17, Add	9.19	
For SDR 15.5, Add	13.46	
For SDR 13.5, Add	21.01	
For SDR 11, Add	33.81	
33 14 13 23-0437 LF 20" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe.....	63.49	9.50
For SDR 26, Deduct	-8.15	
For SDR 19, Add	4.00	
For SDR 17, Add	9.88	
For SDR 15.5, Add	14.47	
For SDR 13.5, Add	22.59	
For SDR 11, Add	36.36	
33 14 13 23-0438 LF 24" DR 21, Butt Fusion Joint High Density Polyethylene (HDPE) Pressure Pipe.....	96.40	11.41
For SDR 26, Deduct	-13.49	
For SDR 19, Add	6.62	
For SDR 17, Add	16.35	
For SDR 15.5, Add	23.95	
For SDR 13.5, Add	37.38	
For SDR 11, Add	60.16	
33 14 13 23-0439 90 Degree Elbows, High Density Polyethylene (HDPE) Pressure Piping <small>(33 14 13 23-0439)</small>		
33 14 13 23-0440 EA 3" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	54.55	13.21
For SDR 26, Deduct	-2.73	
For SDR 19, Add	1.34	
For SDR 17, Add	3.31	
For SDR 15.5, Add	4.85	
For SDR 13.5, Add	7.57	
For SDR 11, Add	12.19	
33 14 13 23-0441 EA 4" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	61.81	14.70
For SDR 26, Deduct	-3.26	
For SDR 19, Add	1.60	
For SDR 17, Add	3.95	
For SDR 15.5, Add	5.78	
For SDR 13.5, Add	9.03	
For SDR 11, Add	14.53	
33 14 13 23-0442 EA 6" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	97.56	16.78
For SDR 26, Deduct	-8.66	
For SDR 19, Add	4.25	
For SDR 17, Add	10.50	
For SDR 15.5, Add	15.38	
For SDR 13.5, Add	24.00	
For SDR 11, Add	38.64	
33 14 13 23-0443 EA 8" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	157.52	19.59
For SDR 26, Deduct	-18.11	
For SDR 19, Add	8.89	
For SDR 17, Add	21.95	
For SDR 15.5, Add	32.14	
For SDR 13.5, Add	50.17	
For SDR 11, Add	80.75	
33 14 13 23-0444 EA 10" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	243.18	26.17
For SDR 26, Deduct	-30.22	
For SDR 19, Add	14.84	
For SDR 17, Add	36.63	
For SDR 15.5, Add	53.65	
For SDR 13.5, Add	83.74	
For SDR 11, Add	134.78	
33 14 13 23-0445 EA 12" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping.....	358.84	39.15
For SDR 26, Deduct	-44.25	
For SDR 19, Add	21.73	
For SDR 17, Add	53.65	
For SDR 15.5, Add	78.56	
For SDR 13.5, Add	122.62	
For SDR 11, Add	197.37	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0446 EA 14" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping	444.50	52.25
<i>For SDR 26, Deduct</i>	-52.76	
<i>For SDR 19, Add</i>	25.90	
<i>For SDR 17, Add</i>	63.95	
<i>For SDR 15.5, Add</i>	93.66	
<i>For SDR 13.5, Add</i>	146.18	
<i>For SDR 11, Add</i>	235.29	
33 14 13 23-0447 EA 16" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping	579.50	78.31
<i>For SDR 26, Deduct</i>	-63.18	
<i>For SDR 19, Add</i>	31.02	
<i>For SDR 17, Add</i>	76.59	
<i>For SDR 15.5, Add</i>	112.16	
<i>For SDR 13.5, Add</i>	175.06	
<i>For SDR 11, Add</i>	281.77	
33 14 13 23-0448 EA 18" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping	733.30	88.09
<i>For SDR 26, Deduct</i>	-85.97	
<i>For SDR 19, Add</i>	42.21	
<i>For SDR 17, Add</i>	104.22	
<i>For SDR 15.5, Add</i>	152.62	
<i>For SDR 13.5, Add</i>	238.22	
<i>For SDR 11, Add</i>	383.43	
33 14 13 23-0449 EA 20" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping	1,008.34	99.97
<i>For SDR 26, Deduct</i>	-129.29	
<i>For SDR 19, Add</i>	63.48	
<i>For SDR 17, Add</i>	156.72	
<i>For SDR 15.5, Add</i>	229.51	
<i>For SDR 13.5, Add</i>	358.24	
<i>For SDR 11, Add</i>	576.61	
33 14 13 23-0450 EA 24" 90 Degree Elbow, DR 21 High Density Polyethylene (HDPE) Pressure Piping	1,293.97	117.51
<i>For SDR 26, Deduct</i>	-172.60	
<i>For SDR 19, Add</i>	84.75	
<i>For SDR 17, Add</i>	209.23	
<i>For SDR 15.5, Add</i>	306.40	
<i>For SDR 13.5, Add</i>	478.25	
<i>For SDR 11, Add</i>	769.77	
33 14 13 23-0451 Tees, High Density Polyethylene (HDPE) Pressure Piping <small>(33 14 13 23-0426)</small>		
33 14 13 23-0452 EA 3" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping	60.90	13.83
<i>For SDR 26, Deduct</i>	-3.57	
<i>For SDR 19, Add</i>	1.76	
<i>For SDR 17, Add</i>	4.33	
<i>For SDR 15.5, Add</i>	6.35	
<i>For SDR 13.5, Add</i>	9.90	
<i>For SDR 11, Add</i>	15.94	
33 14 13 23-0453 EA 4" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping	69.91	15.67
<i>For SDR 26, Deduct</i>	-4.21	
<i>For SDR 19, Add</i>	2.07	
<i>For SDR 17, Add</i>	5.10	
<i>For SDR 15.5, Add</i>	7.47	
<i>For SDR 13.5, Add</i>	11.66	
<i>For SDR 11, Add</i>	18.76	
33 14 13 23-0454 EA 6" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping	114.18	18.07
<i>For SDR 26, Deduct</i>	-11.00	
<i>For SDR 19, Add</i>	5.40	
<i>For SDR 17, Add</i>	13.33	
<i>For SDR 15.5, Add</i>	19.52	
<i>For SDR 13.5, Add</i>	30.47	
<i>For SDR 11, Add</i>	49.05	
33 14 13 23-0455 EA 8" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping	216.26	21.37
<i>For SDR 26, Deduct</i>	-27.90	
<i>For SDR 19, Add</i>	13.70	
<i>For SDR 17, Add</i>	33.82	
<i>For SDR 15.5, Add</i>	49.53	
<i>For SDR 13.5, Add</i>	77.31	
<i>For SDR 11, Add</i>	124.44	
33 14 13 23-0456 EA 10" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping	294.52	31.36
<i>For SDR 26, Deduct</i>	-36.76	
<i>For SDR 19, Add</i>	18.05	
<i>For SDR 17, Add</i>	44.56	
<i>For SDR 15.5, Add</i>	65.26	
<i>For SDR 13.5, Add</i>	101.86	
<i>For SDR 11, Add</i>	163.95	
33 14 13 23-0457 EA 12" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping	414.81	47.04
<i>For SDR 26, Deduct</i>	-50.19	
<i>For SDR 19, Add</i>	24.65	
<i>For SDR 17, Add</i>	60.85	
<i>For SDR 15.5, Add</i>	89.11	
<i>For SDR 13.5, Add</i>	139.08	
<i>For SDR 11, Add</i>	223.86	
33 14 13 23-0458 EA 14" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping	498.33	58.75
<i>For SDR 26, Deduct</i>	-59.05	
<i>For SDR 19, Add</i>	28.99	
<i>For SDR 17, Add</i>	71.58	
<i>For SDR 15.5, Add</i>	104.83	
<i>For SDR 13.5, Add</i>	163.63	
<i>For SDR 11, Add</i>	263.37	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 23-0459 EA 16" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping	646.95	88.09
For SDR 26, Deduct	-70.13	
For SDR 19, Add	34.43	
For SDR 17, Add	85.01	
For SDR 15.5, Add	124.49	
For SDR 13.5, Add	194.31	
For SDR 11, Add	312.75	
33 14 13 23-0460 EA 18" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping	839.38	102.62
For SDR 26, Deduct	-97.44	
For SDR 19, Add	47.84	
For SDR 17, Add	118.11	
For SDR 15.5, Add	172.97	
For SDR 13.5, Add	269.98	
For SDR 11, Add	434.56	
33 14 13 23-0461 EA 20" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping	1,187.20	121.21
For SDR 26, Deduct	-150.21	
For SDR 19, Add	73.76	
For SDR 17, Add	182.09	
For SDR 15.5, Add	266.67	
For SDR 13.5, Add	416.22	
For SDR 11, Add	669.94	
33 14 13 23-0462 EA 24" Tee, DR 21 High Density Polyethylene (HDPE) Pressure Piping	1,547.88	146.93
For SDR 26, Deduct	-202.99	
For SDR 19, Add	99.67	
For SDR 17, Add	246.07	
For SDR 15.5, Add	360.36	
For SDR 13.5, Add	562.47	
For SDR 11, Add	905.33	
33 14 13 26 Galvanized Steel Public Water Utility Distribution Piping (33 14 13)		
See CSI section 22 11 16 00-0013 for galvanized steel pipe.		
33 14 13 36 Steel Public Water Utility Distribution Piping (33 14 13)		
33 14 13 36-0001 Steel Piping (33 14 13 36)		
33 14 13 36-0002 Welded, Plain End, Uncoated Steel Piping (33 14 13 36-0001)		
Note: ASTM A252 steel pipe.		
33 14 13 36-0003 Up To 1/4" Wall Thickness Welded, Plain End, Uncoated Steel Piping (33 14 13 36-0002)		
33 14 13 36-0004 LF 8" Diameter, 3/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	66.14	23.14
For >1,000, Deduct	-3.31	
33 14 13 36-0005 LF 8" Diameter, 1/4" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	76.03	23.14
For >1,000, Deduct	-3.80	
33 14 13 36-0006 LF 10" Diameter, 3/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	77.16	25.24
For >1,000, Deduct	-3.86	
33 14 13 36-0007 LF 10" Diameter, 1/4" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	89.67	25.24
For >1,000, Deduct	-4.48	
33 14 13 36-0008 LF 12" Diameter, 3/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	90.67	26.44
For >1,000, Deduct	-4.53	
33 14 13 36-0009 LF 12" Diameter, 1/4" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	100.40	26.44
For >1,000, Deduct	-5.02	
33 14 13 36-0010 LF 14" Diameter, 3/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	107.96	29.22
For >1,000, Deduct	-5.40	
33 14 13 36-0011 LF 14" Diameter, 1/4" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	115.74	29.22
For >1,000, Deduct	-5.79	
33 14 13 36-0012 LF 16" Diameter, 3/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	114.47	30.85
For >1,000, Deduct	-5.72	
33 14 13 36-0013 LF 16" Diameter, 1/4" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	120.48	30.85
For >1,000, Deduct	-6.02	
33 14 13 36-0014 LF 18" Diameter, 1/4" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	139.49	34.70
For >1,000, Deduct	-6.97	
33 14 13 36-0015 LF 20" Diameter, 1/4" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	149.33	34.70
For >1,000, Deduct	-7.47	
33 14 13 36-0016 5/16" To 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Piping (33 14 13 36-0002)		
33 14 13 36-0017 LF 12" Diameter, 5/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	119.47	43.33
For >1,000, Deduct	-5.97	
33 14 13 36-0018 LF 14" Diameter, 5/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	140.27	47.67
For >1,000, Deduct	-7.01	
33 14 13 36-0019 LF 16" Diameter, 5/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	154.68	49.84
For >1,000, Deduct	-7.73	
33 14 13 36-0020 LF 18" Diameter, 5/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	174.42	56.33
For >1,000, Deduct	-8.72	
33 14 13 36-0021 LF 18" Diameter, 3/8" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	181.09	56.33
For >1,000, Deduct	-9.05	
33 14 13 36-0022 LF 20" Diameter, 5/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	187.26	56.33
For >1,000, Deduct	-9.36	
33 14 13 36-0023 LF 20" Diameter, 3/8" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	194.38	56.33
For >1,000, Deduct	-9.72	
33 14 13 36-0024 LF 24" Diameter, 5/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe	224.92	65.00
For >1,000, Deduct	-11.25	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 36-0025 LF 24" Diameter, 3/8" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	246.94	65.00
<i>For >1,000, Deduct</i>	-12.35	
33 14 13 36-0026 LF 24" Diameter, 7/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	301.00	65.00
<i>For >1,000, Deduct</i>	-15.05	
33 14 13 36-0027 LF 30" Diameter, 5/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	277.41	75.84
<i>For >1,000, Deduct</i>	-13.87	
33 14 13 36-0028 LF 30" Diameter, 3/8" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	286.42	75.84
<i>For >1,000, Deduct</i>	-14.32	
33 14 13 36-0029 LF 30" Diameter, 7/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	371.39	75.84
<i>For >1,000, Deduct</i>	-18.57	
33 14 13 36-0030 LF 36" Diameter, 5/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	324.13	75.84
<i>For >1,000, Deduct</i>	-16.21	
33 14 13 36-0031 LF 36" Diameter, 3/8" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	380.94	91.00
<i>For >1,000, Deduct</i>	-19.05	
33 14 13 36-0032 LF 36" Diameter, 7/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	446.84	91.00
<i>For >1,000, Deduct</i>	-22.34	
33 14 13 36-0033 LF 36" Diameter, 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	430.38	91.00
<i>For >1,000, Deduct</i>	-21.52	
33 14 13 36-0034 LF 42" Diameter, 7/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	642.56	101.83
<i>For >1,000, Deduct</i>	-32.13	
33 14 13 36-0035 LF 42" Diameter, 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	407.55	101.83
<i>For >1,000, Deduct</i>	-20.38	
33 14 13 36-0036 LF 48" Diameter, 7/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	735.89	114.83
<i>For >1,000, Deduct</i>	-36.79	
33 14 13 36-0037 LF 48" Diameter, 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	448.38	114.83
<i>For >1,000, Deduct</i>	-22.42	
33 14 13 36-0038 LF 54" Diameter, 7/16" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	775.71	130.00
<i>For >1,000, Deduct</i>	-38.79	
33 14 13 36-0039 LF 54" Diameter, 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	850.78	130.00
<i>For >1,000, Deduct</i>	-42.54	
33 14 13 36-0040 LF 60" Diameter, 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	954.12	151.66
<i>For >1,000, Deduct</i>	-47.71	
33 14 13 36-0041 LF 66" Diameter, 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	687.19	151.66
<i>For >1,000, Deduct</i>	-34.36	
33 14 13 36-0042 LF 72" Diameter, 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	789.99	123.62
<i>For >1,000, Deduct</i>	-39.50	
33 14 13 36-0043 LF 78" Diameter, 1/2" Wall Thickness Welded, Plain End, Uncoated Steel Pipe.....	1,392.80	123.62
<i>For >1,000, Deduct</i>	-69.64	

33 14 13 36-0044 Flexible Couplings (Dresser Style 38) (33 14 13 36-0001)

33 14 13 36-0045 EA 2" Dresser Coupling For Plain End Welded Steel Pipe.....	102.76	23.08
33 14 13 36-0046 EA 3" Dresser Coupling For Plain End Welded Steel Pipe.....	149.72	44.38
33 14 13 36-0047 EA 4" Dresser Coupling For Plain End Welded Steel Pipe.....	199.22	58.58
33 14 13 36-0048 EA 6" Dresser Coupling For Plain End Welded Steel Pipe.....	318.49	88.76
33 14 13 36-0049 EA 8" Dresser Coupling For Plain End Welded Steel Pipe.....	417.64	111.83
33 14 13 36-0050 EA 10" Dresser Coupling For Plain End Welded Steel Pipe.....	576.14	135.60
33 14 13 36-0051 EA 12" Dresser Coupling For Plain End Welded Steel Pipe.....	683.26	169.95
33 14 13 36-0052 EA 14" Dresser Coupling For Plain End Welded Steel Pipe.....	735.74	169.95
33 14 13 36-0053 EA 16" Dresser Coupling For Plain End Welded Steel Pipe.....	777.21	194.35
33 14 13 36-0054 EA 18" Dresser Coupling For Plain End Welded Steel Pipe.....	851.97	207.91
33 14 13 36-0055 EA 20" Dresser Coupling For Plain End Welded Steel Pipe.....	929.34	235.02
33 14 13 36-0056 EA 24" Dresser Coupling For Plain End Welded Steel Pipe.....	1,175.44	248.59
33 14 13 36-0057 EA 30" Dresser Coupling For Plain End Welded Steel Pipe.....	1,411.24	271.18
33 14 13 36-0058 EA 36" Dresser Coupling For Plain End Welded Steel Pipe.....	1,655.91	305.09
33 14 13 36-0059 EA 42" Dresser Coupling For Plain End Welded Steel Pipe.....	1,912.58	343.50
33 14 13 36-0060 EA 48" Dresser Coupling For Plain End Welded Steel Pipe.....	2,224.77	395.48
33 14 13 36-0061 EA 54" Dresser Coupling For Plain End Welded Steel Pipe.....	2,466.54	451.98
33 14 13 36-0062 EA 60" Dresser Coupling For Plain End Welded Steel Pipe.....	2,836.77	564.98
33 14 13 36-0063 EA 66" Dresser Coupling For Plain End Welded Steel Pipe.....	3,267.09	687.01
33 14 13 36-0064 EA 72" Dresser Coupling For Plain End Welded Steel Pipe.....	3,893.73	813.56

33 14 13 39 Copper Public Water Utility Distribution Piping (33 14 13)

33 14 13 39-0001 Type L Copper Water Distribution Piping (33 14 13 39)

33 14 13 39-0002 LF 1/2" Type L Copper Water Distribution Pipe.....	5.12	1.69
33 14 13 39-0003 LF 3/4" Type L Copper Water Distribution Pipe.....	6.09	1.90
33 14 13 39-0004 LF 1" Type L Copper Water Distribution Pipe.....	7.92	2.11
33 14 13 39-0005 LF 1-1/4" Type L Copper Water Distribution Pipe.....	9.67	2.53
33 14 13 39-0006 LF 1-1/2" Type L Copper Water Distribution Pipe.....	11.74	3.37
33 14 13 39-0007 LF 2" Type L Copper Water Distribution Pipe.....	16.31	4.21
33 14 13 39-0008 LF 2-1/2" Type L Copper Water Distribution Pipe.....	21.10	5.06
33 14 13 39-0009 LF 3" Type L Copper Water Distribution Pipe.....	25.84	5.57
33 14 13 39-0010 LF 3-1/2" Type L Copper Water Distribution Pipe.....	34.90	7.00
33 14 13 39-0011 LF 4" Type L Copper Water Distribution Pipe.....	45.76	8.86
33 14 13 39-0012 LF 5" Type L Copper Water Distribution Pipe.....	70.65	11.05
33 14 13 39-0013 LF 6" Type L Copper Water Distribution Pipe.....	90.45	13.33
33 14 13 39-0014 LF 8" Type L Copper Water Distribution Pipe.....	148.45	14.93

33 14 13 39-0015 Type K Copper Water Distribution Piping (33 14 13 39)

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 14 13 39-0016	LF	1/2" Type K Copper Water Distribution Pipe	5.35	1.69
33 14 13 39-0017	LF	3/4" Type K Copper Water Distribution Pipe	6.90	1.90
33 14 13 39-0018	LF	1" Type K Copper Water Distribution Pipe	8.74	2.11
33 14 13 39-0019	LF	1-1/4" Type K Copper Water Distribution Pipe	10.17	2.53
33 14 13 39-0020	LF	1-1/2" Type K Copper Water Distribution Pipe	12.49	3.37
33 14 13 39-0021	LF	2" Type K Copper Water Distribution Pipe	17.31	4.21
33 14 13 39-0022	LF	2-1/2" Type K Copper Water Distribution Pipe	23.88	5.06
33 14 13 39-0023	LF	3" Type K Copper Water Distribution Pipe	30.00	5.57
33 14 13 39-0024	LF	3-1/2" Type K Copper Water Distribution Pipe	39.79	7.00
33 14 13 39-0025	LF	4" Type K Copper Water Distribution Pipe	53.17	8.86
33 14 13 39-0026	LF	5" Type K Copper Water Distribution Pipe	86.00	11.05
33 14 13 39-0027	LF	6" Type K Copper Water Distribution Pipe	118.05	13.33
33 14 13 39-0028	LF	8" Type K Copper Water Distribution Pipe	199.38	14.93

33 14 13 43 Public Water Utility Distribution Piping Coatings And Wraps (33 14 13)**33 14 13 43-0001 Pipe Coatings (33 14 13 43)****33 14 13 43-0002 Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating (33 14 13 43-0001)**

Note: Applied at fabrication shop.

33 14 13 43-0003	LF	8" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	2.83	
33 14 13 43-0004	LF	10" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	3.37	
33 14 13 43-0005	LF	12" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	3.97	
33 14 13 43-0006	LF	14" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	5.28	
33 14 13 43-0007	LF	16" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	6.03	
33 14 13 43-0008	LF	18" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	6.33	
33 14 13 43-0009	LF	20" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	6.82	
33 14 13 43-0010	LF	24" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	7.95	
33 14 13 43-0011	LF	30" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	10.44	
33 14 13 43-0012	LF	36" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	16.49	
33 14 13 43-0013	LF	42" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	35.54	
33 14 13 43-0014	LF	48" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	40.62	
33 14 13 43-0015	LF	54" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	45.69	
33 14 13 43-0016	LF	60" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	50.77	
33 14 13 43-0017	LF	66" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	55.85	
33 14 13 43-0018	LF	72" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	60.90	
33 14 13 43-0019	LF	78" Outside Diameter Of Pipe, Coal Tar Epoxy, Wrapped With Kraft Paper, Pipe Coating	66.00	

33 14 13 43-0020 Cement Coating With Fiberglass Or Wire Mesh Reinforcing (33 14 13 43-0001)

Note: Applied at fabrication shop. Thickness ranging between 1" and 2".

33 14 13 43-0021	LF	4" Diameter Cement Coated Pipe 1" To 2" Mesh	6.26	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0022	LF	6" Diameter Cement Coated Pipe 1" To 2" Mesh	7.71	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0023	LF	8" Diameter Cement Coated Pipe 1" To 2" Mesh	9.64	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0024	LF	10" Diameter Cement Coated Pipe 1" To 2" Mesh	10.74	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0025	LF	12" Diameter Cement Coated Pipe 1" To 2" Mesh	12.13	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0026	LF	14" Diameter Cement Coated Pipe 1" To 2" Mesh	14.19	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0027	LF	16" Diameter Cement Coated Pipe 1" To 2" Mesh	16.12	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0028	LF	18" Diameter Cement Coated Pipe 1" To 2" Mesh	18.19	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0029	LF	20" Diameter Cement Coated Pipe 1" To 2" Mesh	20.22	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0030	LF	24" Diameter Cement Coated Pipe 1" To 2" Mesh	24.25	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0031	LF	30" Diameter Cement Coated Pipe 1" To 2" Mesh	30.31	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0032	LF	36" Diameter Cement Coated Pipe 1" To 2" Mesh	36.38	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0033	LF	42" Diameter Cement Coated Pipe 1" To 2" Mesh	25.10	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0034	LF	48" Diameter Cement Coated Pipe 1" To 2" Mesh	28.68	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0035	LF	54" Diameter Cement Coated Pipe 1" To 2" Mesh	32.27	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0036	LF	60" Diameter Cement Coated Pipe 1" To 2" Mesh	35.85	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0037	LF	66" Diameter Cement Coated Pipe 1" To 2" Mesh	39.44	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0038	LF	72" Diameter Cement Coated Pipe 1" To 2" Mesh	43.02	
		Note: Reinforcing applied at fabrication shop.		
33 14 13 43-0039	LF	78" Diameter Cement Coated Pipe 1" To 2" Mesh	46.61	
		Note: Reinforcing applied at fabrication shop.		

33 14 13 43-0040 Pipe Lining (33 14 13 43)



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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33 14 13 43-0041	Cement Pipe Lining <small>(33 14 13 43-0040)</small>	
	Note: Shop applied.	
33 14 13 43-0042	LF 4" Outside Diameter, 1/4" Thick Cement Pipe Lining	10.43
	<i>For 1/2" Thick, Add</i>	<i>0.84</i>
33 14 13 43-0043	LF 6" Outside Diameter, 1/4" Thick Cement Pipe Lining	12.96
	<i>For 1/2" Thick, Add</i>	<i>1.03</i>
33 14 13 43-0044	LF 8" Outside Diameter, 1/4" Thick Cement Pipe Lining	15.82
	<i>For 1/2" Thick, Add</i>	<i>1.29</i>
33 14 13 43-0045	LF 10" Outside Diameter, 1/4" Thick Cement Pipe Lining	20.54
	<i>For 1/2" Thick, Add</i>	<i>1.61</i>
33 14 13 43-0046	LF 12" Outside Diameter, 1/4" Thick Cement Pipe Lining	25.30
	<i>For 1/2" Thick, Add</i>	<i>1.93</i>
33 14 13 43-0047	LF 14" Outside Diameter, 1/4" Thick Cement Pipe Lining	32.42
	<i>For 1/2" Thick, Add</i>	<i>2.26</i>
33 14 13 43-0048	LF 16" Outside Diameter, 1/4" Thick Cement Pipe Lining	42.16
	<i>For 1/2" Thick, Add</i>	<i>2.57</i>
33 14 13 43-0049	LF 18" Outside Diameter, 5/16" Thick Cement Pipe Lining	50.47
	<i>For 1/2" Thick, Add</i>	<i>2.46</i>
33 14 13 43-0050	LF 20" Outside Diameter, 5/16" Thick Cement Pipe Lining	61.08
	<i>For 1/2" Thick, Add</i>	<i>2.74</i>
33 14 13 43-0051	LF 24" Outside Diameter, 5/16" Thick Cement Pipe Lining	74.06
	<i>For 1/2" Thick, Add</i>	<i>3.28</i>
33 14 13 43-0052	LF 30" Outside Diameter, 5/16" Thick Cement Pipe Lining	89.05
	<i>For 1/2" Thick, Add</i>	<i>4.11</i>
33 14 13 43-0053	LF 36" Outside Diameter, 5/16" Thick Cement Pipe Lining	107.18
	<i>For 1/2" Thick, Add</i>	<i>4.93</i>
33 14 13 43-0054	LF 42" Outside Diameter, 3/8" Thick Cement Pipe Lining	125.07
	<i>For 1/2" Thick, Add</i>	<i>4.23</i>
33 14 13 43-0055	LF 48" Outside Diameter, 3/8" Thick Cement Pipe Lining	142.88
	<i>For 1/2" Thick, Add</i>	<i>4.83</i>
33 14 13 43-0056	LF 54" Outside Diameter, 3/8" Thick Cement Pipe Lining	160.77
	<i>For 1/2" Thick, Add</i>	<i>5.43</i>
33 14 13 43-0057	LF 60" Outside Diameter, 3/8" Thick Cement Pipe Lining	178.66
	<i>For 1/2" Thick, Add</i>	<i>6.04</i>
33 14 13 43-0058	LF 66" Outside Diameter, 7/16" Thick Cement Pipe Lining	196.47
	<i>For 1/2" Thick, Add</i>	<i>3.54</i>
33 14 13 43-0059	LF 72" Outside Diameter, 7/16" Thick Cement Pipe Lining	214.36
	<i>For 1/2" Thick, Add</i>	<i>3.86</i>
33 14 13 43-0060	LF 78" Outside Diameter, 7/16" Thick Cement Pipe Lining	232.25
	<i>For 1/2" Thick, Add</i>	<i>4.19</i>

33 14 13 43-0061	Cement Fitting Lining <small>(33 14 13 43-0040)</small>	
	Note: Shop applied.	
33 14 13 43-0062	EA 4" Outside Diameter, 1/4" Thick Cement Fitting Lining	10.43
	<i>For 1/2" Thick, Add</i>	<i>0.84</i>
33 14 13 43-0063	EA 6" Outside Diameter, 1/4" Thick Cement Fitting Lining	12.96
	<i>For 1/2" Thick, Add</i>	<i>1.03</i>
33 14 13 43-0064	EA 8" Outside Diameter, 1/4" Thick Cement Fitting Lining	20.08
	<i>For 1/2" Thick, Add</i>	<i>1.67</i>
33 14 13 43-0065	EA 10" Outside Diameter, 1/4" Thick Cement Fitting Lining	33.19
	<i>For 1/2" Thick, Add</i>	<i>2.57</i>
33 14 13 43-0066	EA 12" Outside Diameter, 1/4" Thick Cement Fitting Lining	50.60
	<i>For 1/2" Thick, Add</i>	<i>3.86</i>
33 14 13 43-0067	EA 14" Outside Diameter, 1/4" Thick Cement Fitting Lining	75.27
	<i>For 1/2" Thick, Add</i>	<i>5.20</i>
33 14 13 43-0068	EA 16" Outside Diameter, 1/4" Thick Cement Fitting Lining	111.60
	<i>For 1/2" Thick, Add</i>	<i>6.88</i>
33 14 13 43-0069	EA 18" Outside Diameter, 5/16" Thick Cement Fittings Lining	151.39
	<i>For 1/2" Thick, Add</i>	<i>7.39</i>
33 14 13 43-0070	EA 20" Outside Diameter, 5/16" Thick Cement Fitting Lining	203.46
	<i>For 1/2" Thick, Add</i>	<i>9.12</i>
33 14 13 43-0071	EA 24" Outside Diameter, 5/16" Thick Cement Fitting Lining	296.24
	<i>For 1/2" Thick, Add</i>	<i>13.14</i>

33 14 13 43-0072	8 Mil Polyethylene Encasement Tubing <small>(33 14 13 43)</small>	
	Note: ANSI/AWWA C105/A21.5-99 section 4.2.	
33 14 13 43-0073	LF 3" To 8" Diameter, 8 Mil Polyethylene Encasement Tubing	0.84
33 14 13 43-0074	LF 10" To 12" Diameter, 8 Mil Polyethylene Encasement Tubing	1.39
33 14 13 43-0075	LF 14" To 16" Diameter, 8 Mil Polyethylene Encasement Tubing	1.73
33 14 13 43-0076	LF 18" To 20" Diameter, 8 Mil Polyethylene Encasement Tubing	2.20
33 14 13 43-0077	LF 24" Diameter, 8 Mil Polyethylene Encasement Tubing	3.05
33 14 13 43-0078	LF 30" Diameter, 8 Mil Polyethylene Encasement Tubing	3.92
33 14 13 43-0079	LF 36" To 42" Diameter, 8 Mil Polyethylene Encasement Tubing	4.99
33 14 13 43-0080	LF 48" Diameter, 8 Mil Polyethylene Encasement Tubing	5.95
33 14 13 43-0081	LF 54" Diameter, 8 Mil Polyethylene Encasement Tubing	7.09
33 14 13 43-0082	LF 60" Diameter, 8 Mil Polyethylene Encasement Tubing	7.87

33 14 13 53 Public Water Utility Distribution Piping Saddles And Adapters (33 14 13)

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST
33 14 13 53-0001**Double Stud Stainless Steel Service Saddles** (33 14 13 53)

Note: 1/2" listed taps are compression, 3/4" to 2" are either compression or NPT.

33 14 13 53-0002	EA	4" Diameter x 1/2", 3/4" Or 1" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372).....	225.13
33 14 13 53-0003	EA	4" Diameter x 1-1/4" Or 1-1/2" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372).....	323.65
33 14 13 53-0004	EA	4" Diameter x 2" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372).....	333.53
33 14 13 53-0005	EA	6" Diameter x 1/2", 3/4" Or 1" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372).....	272.38
33 14 13 53-0006	EA	6" Diameter x 1-1/4", 1-1/2" Or 2" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372).....	345.34
33 14 13 53-0007	EA	8" Diameter x 1/2", 3/4" Or 1" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372).....	284.09
33 14 13 53-0008	EA	8" Diameter x 1-1/4", 1-1/2" Or 2" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372).....	361.32
33 14 13 53-0009	EA	10" Diameter x 1/2", 3/4" Or 1" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372).....	321.52
33 14 13 53-0010	EA	10" Diameter x 1-1/4", 1-1/2" Or 2" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372).....	380.58
33 14 13 53-0011	EA	12" Diameter x 1/2", 3/4" Or 1" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372).....	334.86
33 14 13 53-0012	EA	12" Diameter x 1-1/4", 1-1/2" Or 2" Tap Double Stud Stainless Steel Service Saddle (Smith-Blair 372).....	391.41

33 14 13 53-0013**Double Bale Epoxy Coated Ductile Iron Body Service Saddles** (33 14 13 53)

Note: Electro-galvanized steel bales. 5/8" listed taps are compression. 3/4" to 2" are either compression or NPT. 2-1/2", 3" or 4" are NPT.

33 14 13 53-0014	EA	1-1/4" To 1-1/2" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	183.24
33 14 13 53-0015	EA	2" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	183.39
33 14 13 53-0016	EA	2" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	195.04
33 14 13 53-0017	EA	2-1/2" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	186.83
33 14 13 53-0018	EA	3" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	199.96
33 14 13 53-0019	EA	3" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	222.24
33 14 13 53-0020	EA	3" Diameter x 2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	236.49
33 14 13 53-0021	EA	4" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	215.47
33 14 13 53-0022	EA	4" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	237.95
33 14 13 53-0023	EA	4" Diameter x 2" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	249.90
33 14 13 53-0024	EA	5" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	227.24
33 14 13 53-0025	EA	5" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	250.49
33 14 13 53-0026	EA	5" Diameter x 2" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	262.37
33 14 13 53-0027	EA	6" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	239.49
33 14 13 53-0028	EA	6" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	262.01
33 14 13 53-0029	EA	6" Diameter x 2" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	273.72
33 14 13 53-0030	EA	6" Diameter x 3" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	413.55
33 14 13 53-0031	EA	6" Diameter x 4" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	423.43
33 14 13 53-0032	EA	8" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	260.18
33 14 13 53-0033	EA	8" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	287.71
33 14 13 53-0034	EA	8" Diameter x 2" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	298.47
33 14 13 53-0035	EA	8" Diameter x 3" To 4" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	492.60
33 14 13 53-0036	EA	10" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	293.32
33 14 13 53-0037	EA	10" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	326.63
33 14 13 53-0038	EA	10" Diameter x 3" To 4" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	552.66
33 14 13 53-0039	EA	12" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	320.32
33 14 13 53-0040	EA	12" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	355.64
33 14 13 53-0041	EA	12" Diameter x 2" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	368.11
33 14 13 53-0042	EA	12" Diameter x 3" To 4" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	619.56
33 14 13 53-0043	EA	14" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	377.72
33 14 13 53-0044	EA	14" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	405.07
33 14 13 53-0045	EA	14" Diameter x 2" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	437.38
33 14 13 53-0046	EA	14" Diameter x 3" To 4" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	768.59
33 14 13 53-0047	EA	15" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	387.60
33 14 13 53-0048	EA	15" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	444.65
33 14 13 53-0049	EA	15" Diameter x 2" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	463.22
33 14 13 53-0050	EA	15" Diameter x 3" To 4" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	827.52
33 14 13 53-0051	EA	16" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	405.10
33 14 13 53-0052	EA	16" Diameter x 1-1/4" To 1-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	464.31
33 14 13 53-0053	EA	16" Diameter x 2" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	483.40
33 14 13 53-0054	EA	16" Diameter x 3" To 4" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	861.34
33 14 13 53-0055	EA	18" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	450.80
33 14 13 53-0056	EA	18" Diameter x 1-1/4" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	524.18
33 14 13 53-0057	EA	20" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	517.52
33 14 13 53-0058	EA	20" Diameter x 1-1/4" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	574.15
33 14 13 53-0059	EA	24" Diameter x 5/8" To 1" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	540.77
33 14 13 53-0060	EA	24" Diameter x 1-1/4" To 2-1/2" Tap Double Bale Epoxy Coated Ductile Iron Body Service Saddle (Smith-Blair 313).....	612.80

33 14 13 53-0061**Double Bale Bronze Service Saddles** (33 14 13 53)

33 14 13 53-0062	EA	4" Diameter x 3/4" To 1" Tap Double Bale Bronze Service Saddle (Mueller BR2B).....	258.95
33 14 13 53-0063	EA	4" Diameter x 1-1/4" To 2" Tap Double Bale Bronze Service Saddle (Mueller BR2B).....	283.95
33 14 13 53-0064	EA	6" Diameter x 3/4" To 1" Tap Double Bale Bronze Service Saddle (Mueller BR2B).....	294.87
33 14 13 53-0065	EA	6" Diameter x 1-1/4" To 2" Tap Double Bale Bronze Service Saddle (Mueller BR2B).....	320.12



	MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14	13 53-0066	EA		8" Diameter x 3/4" To 1" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	330.25	
33 14	13 53-0067	EA		8" Diameter x 1-1/4" To 2" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	347.11	
33 14	13 53-0068	EA		10" Diameter x 3/4" To 1" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	317.78	
33 14	13 53-0069	EA		10" Diameter x 1-1/4" To 2" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	338.48	
33 14	13 53-0070	EA		12" Diameter x 3/4" To 1" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	409.74	
33 14	13 53-0071	EA		12" Diameter x 1-1/4" To 2" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	444.22	
33 14	13 53-0072	EA		14" Diameter x 3/4" To 1" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	630.66	
33 14	13 53-0073	EA		14" Diameter x 1-1/4" To 2" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	715.24	
33 14	13 53-0074	EA		16" Diameter x 3/4" To 1" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	735.91	
33 14	13 53-0075	EA		16" Diameter x 1-1/4" To 2" Tap Double Bale Bronze Service Saddle (Mueller BR2B)	824.12	

33 14 13 53-0076

Stainless Steel Double Straps, Bronze Body Service Saddle (33 14 13 53)

Note: Taps are compression or NPT.

33 14	13 53-0077	EA		4" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	273.33	
33 14	13 53-0078	EA		4" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	302.10	
33 14	13 53-0079	EA		6" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	311.85	
33 14	13 53-0080	EA		6" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	339.53	
33 14	13 53-0081	EA		8" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	351.25	
33 14	13 53-0082	EA		8" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	369.24	
33 14	13 53-0083	EA		10" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	397.83	
33 14	13 53-0084	EA		10" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	426.43	
33 14	13 53-0085	EA		12" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	428.99	
33 14	13 53-0086	EA		12" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	465.94	
33 14	13 53-0087	EA		14" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	678.35	
33 14	13 53-0088	EA		14" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	782.68	
33 14	13 53-0089	EA		16" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	792.49	
33 14	13 53-0090	EA		16" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	865.19	
33 14	13 53-0091	EA		18" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	1,152.92	
33 14	13 53-0092	EA		18" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	1,152.92	
33 14	13 53-0093	EA		20" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	1,199.00	
33 14	13 53-0094	EA		20" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	1,199.00	
33 14	13 53-0095	EA		24" Diameter x 3/4" To 1" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	1,286.50	
33 14	13 53-0096	EA		24" Diameter x 1-1/4" To 2" Tap Stainless Steel Double Straps, Bronze Body Service Saddle (Mueller BR2S)	1,286.50	

33 14 13 53-0097

Ductile Iron Mechanical Joint Tapping Sleeve (33 14 13 53)

33 14	13 53-0098	EA		4" Diameter x 4" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	1,255.22	
33 14	13 53-0099	EA		6" Diameter x 4" Or 6" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	1,513.81	
33 14	13 53-0100	EA		8" Diameter x 4" Or 6" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	1,813.81	
33 14	13 53-0101	EA		8" Diameter x 8" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	1,922.86	
33 14	13 53-0102	EA		10" Diameter x 4" Or 6" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	2,971.27	
33 14	13 53-0103	EA		10" Diameter x 8" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	3,125.00	
33 14	13 53-0104	EA		10" Diameter x 10" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	3,189.32	
33 14	13 53-0105	EA		12" Diameter x 4" Or 6" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	3,119.47	
33 14	13 53-0106	EA		12" Diameter x 8" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	3,272.58	
33 14	13 53-0107	EA		12" Diameter x 10" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	3,649.74	
33 14	13 53-0108	EA		12" Diameter x 12" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	3,374.35	
33 14	13 53-0109	EA		14" Diameter x 6" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	6,358.59	
33 14	13 53-0110	EA		14" Diameter x 8" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	6,531.97	
33 14	13 53-0111	EA		14" Diameter x 10" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	6,608.36	
33 14	13 53-0112	EA		14" Diameter x 12" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	6,639.58	
33 14	13 53-0113	EA		14" Diameter x 14" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	6,883.78	
33 14	13 53-0114	EA		16" Diameter x 4" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	6,868.36	
33 14	13 53-0115	EA		16" Diameter x 6" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	6,888.13	
33 14	13 53-0116	EA		16" Diameter x 8" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	7,082.20	
33 14	13 53-0117	EA		16" Diameter x 10" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	7,125.79	
33 14	13 53-0118	EA		16" Diameter x 12" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	7,174.06	
33 14	13 53-0119	EA		16" Diameter x 14" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	11,107.04	
33 14	13 53-0120	EA		16" Diameter x 16" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	7,522.59	
33 14	13 53-0121	EA		18" Diameter x 4" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	9,604.24	
33 14	13 53-0122	EA		18" Diameter x 6" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	10,046.03	
33 14	13 53-0123	EA		18" Diameter x 8", 10", 12" Or 16" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	10,162.81	
33 14	13 53-0124	EA		18" Diameter x 18" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	10,524.77	
33 14	13 53-0125	EA		20" Diameter x 4" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	8,942.78	
33 14	13 53-0126	EA		20" Diameter x 6" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	8,602.16	
33 14	13 53-0127	EA		20" Diameter x 8" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	8,768.91	
33 14	13 53-0128	EA		20" Diameter x 10" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	8,832.30	
33 14	13 53-0129	EA		20" Diameter x 12" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	9,159.37	
33 14	13 53-0130	EA		20" Diameter x 14" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	12,476.26	
33 14	13 53-0131	EA		20" Diameter x 16", 18" Or 20" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	12,712.62	
33 14	13 53-0132	EA		24" Diameter x 4", 6" Or 8" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	10,825.89	
33 14	13 53-0133	EA		24" Diameter x 10" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	10,973.57	
33 14	13 53-0134	EA		24" Diameter x 12" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	11,014.68	
33 14	13 53-0135	EA		24" Diameter x 14" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	15,366.73	
33 14	13 53-0136	EA		24" Diameter x 16" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	15,562.74	
33 14	13 53-0137	EA		24" Diameter x 18" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	15,602.26	
33 14	13 53-0138	EA		24" Diameter x 20" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	16,033.00	
33 14	13 53-0139	EA		24" Diameter x 24" Tap Ductile Iron Mechanical Joint Tapping Sleeve (Mueller H-615)	16,234.65	

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 14 13 53-0140	Carbon Steel Epoxy Coated Flange, Stainless Steel Tapping Sleeve <small>(33 14 13 53)</small>		
33 14 13 53-0141	EA	4" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,036.01
33 14 13 53-0142	EA	6" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,092.31
33 14 13 53-0143	EA	6" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,198.75
33 14 13 53-0144	EA	8" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,226.93
33 14 13 53-0145	EA	8" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,278.44
33 14 13 53-0146	EA	8" Diameter x 8" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,479.91
33 14 13 53-0147	EA	10" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,335.47
33 14 13 53-0148	EA	10" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,385.54
33 14 13 53-0149	EA	10" Diameter x 8" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,562.26
33 14 13 53-0150	EA	10" Diameter x 10" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,198.35
33 14 13 53-0151	EA	12" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,496.26
33 14 13 53-0152	EA	12" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,571.15
33 14 13 53-0153	EA	12" Diameter x 8" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,745.02
33 14 13 53-0154	EA	12" Diameter x 10" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,314.53
33 14 13 53-0155	EA	12" Diameter x 12" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,533.30
33 14 13 53-0156	EA	14" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	1,988.17
33 14 13 53-0157	EA	14" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,049.60
33 14 13 53-0158	EA	14" Diameter x 8" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,426.21
33 14 13 53-0159	EA	14" Diameter x 10" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,893.86
33 14 13 53-0160	EA	14" Diameter x 12" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,196.88
33 14 13 53-0161	EA	16" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,369.74
33 14 13 53-0162	EA	16" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,433.25
33 14 13 53-0163	EA	16" Diameter x 8" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,681.51
33 14 13 53-0164	EA	16" Diameter x 10" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,351.71
33 14 13 53-0165	EA	16" Diameter x 12" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,507.74
33 14 13 53-0166	EA	18" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,497.47
33 14 13 53-0167	EA	18" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,615.05
33 14 13 53-0168	EA	18" Diameter x 8" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	2,779.58
33 14 13 53-0169	EA	18" Diameter x 10" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,568.76
33 14 13 53-0170	EA	18" Diameter x 12" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,724.62
33 14 13 53-0171	EA	20" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,028.69
33 14 13 53-0172	EA	20" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,092.06
33 14 13 53-0173	EA	20" Diameter x 8" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,465.14
33 14 13 53-0174	EA	20" Diameter x 10" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	4,098.15
33 14 13 53-0175	EA	20" Diameter x 12" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	4,364.96
33 14 13 53-0176	EA	24" Diameter x 4" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,260.55
33 14 13 53-0177	EA	24" Diameter x 6" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,403.11
33 14 13 53-0178	EA	24" Diameter x 8" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	3,596.69
33 14 13 53-0179	EA	24" Diameter x 10" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	4,496.42
33 14 13 53-0180	EA	24" Diameter x 12" Epoxy Coated Carbon Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 662)	4,659.05

33 14 13 53-0181	Stainless Steel Flange, Stainless Steel Tapping Sleeve <small>(33 14 13 53)</small>		
33 14 13 53-0182	EA	4" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,208.82
33 14 13 53-0183	EA	6" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,310.57
33 14 13 53-0184	EA	6" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,388.94
33 14 13 53-0185	EA	8" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,409.50
33 14 13 53-0186	EA	8" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,500.24
33 14 13 53-0187	EA	8" Diameter x 8" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,777.44
33 14 13 53-0188	EA	10" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,618.12
33 14 13 53-0189	EA	10" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,719.07
33 14 13 53-0190	EA	10" Diameter x 8" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,967.21
33 14 13 53-0191	EA	10" Diameter x 10" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,687.78
33 14 13 53-0192	EA	12" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,843.25
33 14 13 53-0193	EA	12" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	1,981.99
33 14 13 53-0194	EA	12" Diameter x 8" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,310.81
33 14 13 53-0195	EA	12" Diameter x 10" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,740.13
33 14 13 53-0196	EA	12" Diameter x 12" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,067.63
33 14 13 53-0197	EA	14" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,102.50
33 14 13 53-0198	EA	14" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,273.39
33 14 13 53-0199	EA	14" Diameter x 8" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,644.03
33 14 13 53-0200	EA	14" Diameter x 10" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,073.77
33 14 13 53-0201	EA	14" Diameter x 12" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,299.61
33 14 13 53-0202	EA	16" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,577.42
33 14 13 53-0203	EA	16" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,812.17
33 14 13 53-0204	EA	16" Diameter x 8" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,990.32
33 14 13 53-0205	EA	16" Diameter x 10" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,452.62
33 14 13 53-0206	EA	16" Diameter x 12" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,765.23
33 14 13 53-0207	EA	18" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	2,832.69
33 14 13 53-0208	EA	18" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,185.08
33 14 13 53-0209	EA	18" Diameter x 8" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,371.14
33 14 13 53-0210	EA	18" Diameter x 10" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,777.01
33 14 13 53-0211	EA	18" Diameter x 12" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	4,315.00
33 14 13 53-0212	EA	20" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,048.49
33 14 13 53-0213	EA	20" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,399.96
33 14 13 53-0214	EA	20" Diameter x 8" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,550.55
33 14 13 53-0215	EA	20" Diameter x 10" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	4,308.51
33 14 13 53-0216	EA	20" Diameter x 12" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	4,729.02
33 14 13 53-0217	EA	24" Diameter x 4" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,626.13



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Water Utilities	33 10	
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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 13 53-0218 EA 24" Diameter x 6" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,673.49	
33 14 13 53-0219 EA 24" Diameter x 8" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	3,854.68	
33 14 13 53-0220 EA 24" Diameter x 10" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	4,760.02	
33 14 13 53-0221 EA 24" Diameter x 12" Stainless Steel Flange, Stainless Steel Tapping Sleeve (Smith-Blair 663)	5,241.77	
33 14 13 53-0222 Ductile Iron Body, Flanged Coupling Adapter (33 14 13 53)		
33 14 13 53-0223 EA 3" Ductile Iron Body, Flanged Coupling Adapter (Smith-Blair 912)	303.05	51.65
33 14 13 53-0224 EA 4" Ductile Iron Body, Flanged Coupling Adapter (Smith-Blair 912)	379.62	65.13
33 14 13 53-0225 EA 6" Ductile Iron Body, Flanged Coupling Adapter (Smith-Blair 912)	498.13	89.83
33 14 13 53-0226 EA 8" Ductile Iron Body, Flanged Coupling Adapter (Smith-Blair 912)	648.24	105.54
33 14 13 53-0227 EA 10" Ductile Iron Body, Flanged Coupling Adapter (Smith-Blair 912)	1,029.39	119.02
33 14 13 53-0228 EA 12" Ductile Iron Body, Flanged Coupling Adapter (Smith-Blair 912)	1,149.55	134.74
33 14 13 53-0229 Steel Body, Flanged Coupling Adapter (33 14 13 53)		
33 14 13 53-0230 EA 3" Steel Body, Flanged Coupling Adapter (Smith-Blair 913)	448.01	51.65
33 14 13 53-0231 EA 4" Steel Body, Flanged Coupling Adapter (Smith-Blair 913)	528.77	65.13
33 14 13 53-0232 EA 6" Steel Body, Flanged Coupling Adapter (Smith-Blair 913)	705.31	89.83
33 14 13 53-0233 EA 8" Steel Body, Flanged Coupling Adapter (Smith-Blair 913)	863.86	105.54
33 14 13 53-0234 EA 10" Steel Body, Flanged Coupling Adapter (Smith-Blair 913)	1,057.05	119.02
33 14 13 53-0235 EA 12" Steel Body, Flanged Coupling Adapter (Smith-Blair 913)	1,232.73	134.74
33 14 13 53-0236 EA 14" Steel Body, Flanged Coupling Adapter (Smith-Blair 913)	1,467.48	148.22
33 14 13 53-0237 EA 16" Steel Body, Flanged Coupling Adapter (Smith-Blair 913)	1,741.39	161.69
33 14 13 53-0238 EA 18" Steel Body, Flanged Coupling Adapter (Smith-Blair 913)	2,059.71	177.86
33 14 13 53-0239 EA 20" Steel Body, Flanged Coupling Adapter (Smith-Blair 913)	2,437.56	195.64
33 14 13 53-0240 Steel Body, Flanged-Lock Restrained Coupling Adapters (33 14 13 53)		
33 14 13 53-0241 EA 4" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911)	389.31	65.13
33 14 13 53-0242 EA 6" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911)	522.06	89.83
33 14 13 53-0243 EA 8" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911)	576.63	105.54
33 14 13 53-0244 EA 10" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911)	850.36	119.02
33 14 13 53-0245 EA 12" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911)	1,087.14	134.74
33 14 13 53-0246 EA 14" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911)	1,220.04	148.22
33 14 13 53-0247 EA 16" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911)	1,437.17	161.69
33 14 13 53-0248 EA 18" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911)	1,613.69	177.86
33 14 13 53-0249 EA 20" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911)	1,943.70	195.64
33 14 13 53-0250 EA 24" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911)	2,346.37	215.22
33 14 13 53-0251 EA 30" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911)	4,937.90	236.70
33 14 13 53-0252 EA 36" Steel Body, Flanged-Lock Restrained Coupling Adapter (Smith-Blair 911)	6,678.30	260.41
33 14 13 53-0253 Ductile Iron Body, Omni Coupling System (33 14 13 53)		
33 14 13 53-0254 EA 2" Ductile Iron Body, Omni Coupling System (Smith-Blair 441)	133.99	35.93
33 14 13 53-0255 EA 2-1/2" Ductile Iron Body, Omni Coupling System (Smith-Blair 441)	165.67	42.67
33 14 13 53-0256 EA 3" Ductile Iron Body, Omni Coupling System (Smith-Blair 441)	205.38	51.65
33 14 13 53-0257 EA 4" Ductile Iron Body, Omni Coupling System (Smith-Blair 441)	257.86	65.13
33 14 13 53-0258 EA 6" Ductile Iron Body, Omni Coupling System (Smith-Blair 441)	343.31	89.83
33 14 13 53-0259 EA 8" Ductile Iron Body, Omni Coupling System (Smith-Blair 441)	417.99	105.54
33 14 13 53-0260 EA 10" Ductile Iron Body, Omni Coupling System (Smith-Blair 441)	525.28	119.02
33 14 13 53-0261 EA 12" Ductile Iron Body, Omni Coupling System (Smith-Blair 441)	615.35	134.74
33 14 13 53-0262 EA 14" Ductile Iron Body, Omni Coupling System (Smith-Blair 441)	875.04	148.22
33 14 13 53-0263 EA 16" Ductile Iron Body, Omni Coupling System (Smith-Blair 441)	1,097.17	161.69
33 14 19 Valves and Hydrants for Water Utility Service (33 14)		
Note: Flanged valves excludes bolt and gasket set. See CSI section 23 21 13 23-0669 for bolt and gasket sets.		
33 14 19 00-0001 Accessories For Valves (33 14 19)		
33 14 19 00-0002 EA 1" Valve Extension Stem	80.71	
For Each Additional LF, Add 5.58		
33 14 19 00-0003 EA Up to 80" Long Indicator Post Telescoping Barrel Assembly	998.86	88.76
Note: Excludes valve.		
33 14 19 00-0004 EA >80" To 114" Long Indicator Post Telescoping Barrel Assembly	1,131.30	97.63
Note: Excludes valve.		
33 14 19 00-0005 EA Adjust Water Valve Box To Grade	88.76	
33 14 19 00-0006 Roadway Or Curb Valve Boxes (33 14 19)		
33 14 19 00-0007 Round Head, Cast Iron Service, Roadway Or Valve Boxes (33 14 19 00-0006)		
33 14 19 00-0008 EA 36" To 48" High, Two Piece, Screw Type, 2-1/2" Shaft, Round Head, Cast Iron Service Box	177.77	11.71
Note: Includes cover, top section and bottom section.		
33 14 19 00-0009 EA 36" To 54" High, Two Piece, Screw Type, 2-1/2" Shaft, Round Head, Cast Iron Service Box	206.16	11.71
Note: Includes cover, top section and bottom section.		
33 14 19 00-0010 EA 42" To 60" High, Two Piece, Screw Type, 2-1/2" Shaft, Round Head, Cast Iron Service Box	207.47	11.71
Note: Includes cover, top section and bottom section.		
33 14 19 00-0011 EA 9" Extension For Screw Type, 2-1/2" Shaft, Round Head, Cast Iron Service Box	53.89	5.86
33 14 19 00-0012 EA 16" Extension For Screw Type, 2-1/2" Shaft, Round Head, Cast Iron Service Box	61.40	5.86
33 14 19 00-0013 EA 24" Extension For Screw Type, 2-1/2" Shaft, Round Head, Cast Iron Service Box	72.71	5.86

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 19 00-0014 EA 36" To 48" High, Screw Type, 4-1/4" Shaft, Round Head, Cast Iron Roadway Box.....	267.47	14.65
Note: Includes cover, top section and bottom section.		
33 14 19 00-0015 EA 45" To 54" High, Three Piece, Screw Type, 5-1/4" Shaft, Round Head, Cast Iron Valve Box.....	462.32	20.50
Note: Includes cover, top section, bottom section and #6 round base.		
33 14 19 00-0016 EA 45" To 66" High, Three Piece, Screw Type, 5-1/4" Shaft, Round Head, Cast Iron Valve Box.....	515.26	20.50
Note: Includes cover, top section, bottom section and #6 round base.		
33 14 19 00-0017 EA 24" To 36" High, Two Piece, Screw Type, 5-1/4" Shaft, Round Head, Cast Iron Valve Box.....	277.98	14.65
Note: Includes cover, top section and bottom section.		
33 14 19 00-0018 EA 36" To 48" High, Two Piece, Screw Type, 5-1/4" Shaft, Round Head, Cast Iron Valve Box.....	290.63	14.65
Note: Includes cover, top section and bottom section.		
33 14 19 00-0019 EA 24" To 36" High, Two Piece, Slip Type, 5-1/4" Shaft, Round Head, Cast Iron Valve Box.....	280.96	14.65
Note: Includes cover, top section and bottom section.		
33 14 19 00-0020 EA 12" Extension For Screw Type, 5-1/4" Shaft, Round Head, Cast Iron Valve Box.....	101.93	5.86
33 14 19 00-0021 EA 18" To 24" High Round Head Cast Iron Roadway Or Curb Valve Boxes.....	172.71	24.10
33 14 19 00-0022 EA 22" To 28" High Round Head Cast Iron Roadway Or Curb Valve Boxes.....	178.45	25.06
33 14 19 00-0023 EA 30" To 36" High Round Head Cast Iron Roadway Or Curb Valve Boxes.....	198.59	26.03
33 14 19 00-0024 EA 36" To 48" High Round Head Cast Iron Roadway Or Curb Valve Boxes.....	271.39	27.47
33 14 19 00-0025 EA 48" To 60" High Round Head Cast Iron Roadway Or Curb Valve Boxes.....	326.80	28.91
33 14 19 00-0026 EA 18" Cast Iron Service Box Extension Section.....	76.29	
33 14 19 00-0027 Plastic Roadway Grade Water Meter Box And Cover (33 14 19 00-0006)		
33 14 19 00-0028 EA 12" Wide x 16" Long x 16" Deep Plastic Meter Box And Cover.....	249.20	33.73
33 14 19 00-0029 EA 9-3/4" Wide x 19-1/4" Long x 16" Deep Oval Plastic Meter Box And Cover.....	187.38	24.10
33 14 19 00-0030 EA Cast Iron Lid For Plastic Meter Box.....	55.80	
33 14 19 00-0031 Traffic Valve Box And Lid (33 14 19 00-0006)		
33 14 19 00-0032 EA 10-3/8" ID x 12" Traffic Valve Box And 11" OD Cast Iron Lid (Christy G-5).....	147.22	
33 14 19 00-0033 EA 14-1/2" ID x 12" Traffic Valve Box And 13-1/4" OD Cast Iron Lid (Christy G-12).....	439.53	
33 14 19 00-0034 Roadway Utility Box (33 14 19)		
33 14 19 00-0035 Utility Box (33 14 19 00-0034)		
Note: Christy Concrete Products.		
33 14 19 00-0036 B3 Utility Box, 9-3/8" x 15-1/2" (33 14 19 00-0035)		
33 14 19 00-0037 EA 9-3/8" x 15-1/2" Precast Concrete Utility Box.....	70.59	43.77
33 14 19 00-0038 EA Cast Iron Lid For 9-3/8" x 15-1/2" Utility Box.....	54.17	4.86
33 14 19 00-0039 EA Reinforced Concrete Lid For 9-3/8" x 15-1/2" Utility Box.....	25.36	4.86
33 14 19 00-0040 EA Steel Checkered Plate Cover For 9-3/8" x 15-1/2" Utility Box.....	112.75	4.86
33 14 19 00-0041 EA 12-1/8" x 18-5/8" Reinforced Concrete Slab For 9-3/8" x 15-1/2" Utility Box.....	38.76	9.72
33 14 19 00-0042 EA 3" High Reinforced Concrete Base For 9-3/8" x 15-1/2" Utility Box.....	51.49	9.72
33 14 19 00-0043 B9 Utility Box, 10-1/4" x 17-1/4" (33 14 19 00-0035)		
33 14 19 00-0044 EA 10-1/4" x 17-1/4" Precast Concrete Utility Box.....	88.22	58.35
33 14 19 00-0045 EA Cast Iron Lid For 10-1/4" x 17-1/4" Utility Box.....	63.60	5.83
33 14 19 00-0046 EA Reinforced Concrete Lid For 10-1/4" x 17-1/4" Utility Box.....	28.58	5.83
33 14 19 00-0047 EA Steel Checkered Plate Cover For 10-1/4" x 17-1/4" Utility Box.....	118.05	4.86
33 14 19 00-0048 EA 13" x 19-3/4" Reinforced Concrete Slab For 10-1/4" x 17-1/4" Utility Box.....	42.26	9.72
33 14 19 00-0049 EA 5-3/4" High Reinforced Concrete Base For 10-1/4" x 17-1/4" Utility Box.....	58.14	14.59
33 14 19 00-0050 EA 12" High Reinforced Concrete Extension For 10-1/4" x 17-1/4" Utility Box.....	78.26	26.74
33 14 19 00-0051 B12 Utility Box, 12" x 20" (33 14 19 00-0035)		
33 14 19 00-0052 EA 12" x 20" Precast Concrete Utility Box.....	96.52	63.21
33 14 19 00-0053 EA Cast Iron Lid For 12" x 20" Utility Box.....	111.34	7.29
33 14 19 00-0054 EA Reinforced Concrete Lid For 12" x 20" Utility Box.....	40.22	9.72
33 14 19 00-0055 EA Steel Checkered Plate Cover For 12" x 20" Utility Box.....	161.94	9.72
33 14 19 00-0056 EA 12" High Reinforced Concrete Extension For 12" x 20" Utility Box.....	101.21	34.04
33 14 19 00-0057 B16 Utility Box, 12" x 22-1/4" (33 14 19 00-0035)		
33 14 19 00-0058 EA 12" x 22-1/4" Precast Concrete Utility Box.....	111.68	73.91
33 14 19 00-0059 EA Cast Iron Lid For 12" x 22-1/4" Utility Box.....	127.27	9.72
33 14 19 00-0060 EA Reinforced Concrete Lid For 12" x 22-1/4" Utility Box.....	47.43	9.72
33 14 19 00-0061 EA Steel Checkered Plate Cover For 12" x 22-1/4" Utility Box.....	162.80	9.72
33 14 19 00-0062 EA 16" x 27" Reinforced Concrete Slab For 12" x 22-1/4" Utility Box.....	69.46	16.53
33 14 19 00-0063 EA 12" High Reinforced Concrete Extension For 12" x 22-1/4" Utility Box.....	102.41	34.04
33 14 19 00-0064 B30 Utility Box, 13-1/4" x 24" (33 14 19 00-0035)		
33 14 19 00-0065 EA 13-1/4" x 24" Precast Concrete Utility Box (Christy B30BOX).....	133.78	87.52
33 14 19 00-0066 EA Reinforced Concrete Lid For 13-1/4" x 24" Utility Box (Christy B30D).....	66.33	15.56
33 14 19 00-0067 EA Steel Checkered Plate Cover For 13-1/4" x 24" Utility Box (Christy B30-61G).....	201.86	12.64
33 14 19 00-0068 EA 16" x 27" Reinforced Concrete Slab For 13-1/4" x 24" Utility Box (Christy B30SL).....	69.46	16.53
33 14 19 00-0069 EA 5-1/2" High Reinforced Concrete Base For 13-1/4" x 24" Utility Box (Christy B30BA).....	108.28	27.23
33 14 19 00-0070 EA 6" High Reinforced Concrete Extension For 13-1/4" x 24" Utility Box (Christy B30X6).....	81.81	18.47
33 14 19 00-0071 EA 12" High Reinforced Concrete Extension For 13-1/4" x 24" Utility Box (Christy B30X12).....	132.37	43.77



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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 19 00-0072 B36 Utility Box, 17-1/4" x 30" <small>(33 14 19 00-0035)</small>		
33 14 19 00-0073 EA 17-1/4" x 30" Precast Concrete Utility Box (Christy B36BOX).....	173.10	110.87
33 14 19 00-0074 EA Reinforced Concrete Lid For 17-1/4" x 30" Utility Box (Christy B36D)	109.44	26.74
33 14 19 00-0075 EA Steel Checkered Plate Cover For 17-1/4" x 30" Utility Box (Christy B36-61D).....	255.66	18.47
33 14 19 00-0076 EA 20" x 34" Reinforced Concrete Slab For 17-1/4" x 30" Utility Box (Christy B36SL).....	109.40	35.01
33 14 19 00-0077 EA 6" High Reinforced Concrete Base For 17-1/4" x 30" Utility Box (Christy B36BA)	165.02	38.90
33 14 19 00-0078 EA 12" High Reinforced Concrete Extension For 17-1/4" x 30" Utility Box (Christy B36X12).....	174.74	56.41
33 14 19 00-0079 B40 Utility Box, 24-1/2" x 36" <small>(33 14 19 00-0035)</small>		
33 14 19 00-0080 EA 24-1/2" x 36" Precast Concrete Utility Box	329.37	171.16
33 14 19 00-0081 EA Reinforced Concrete Lid For 24-1/2" x 36" Utility Box	290.59	64.18
33 14 19 00-0082 EA Steel Checkered Plate Cover For 24-1/2" x 36" Utility Box	365.06	28.20
33 14 19 00-0083 EA 30" x 40" Reinforced Concrete Slab For 24-1/2" x 36" Utility Box	245.32	60.30
33 14 19 00-0084 EA 10" High Reinforced Concrete Extension For 24-1/2" x 36" Utility Box	259.52	63.21
33 14 19 00-0085 B48 Utility Box, 30-1/4" x 48-1/4" <small>(33 14 19 00-0035)</small>		
33 14 19 00-0086 EA 30-1/4" x 48-1/4" Precast Concrete Utility Box	436.47	194.50
33 14 19 00-0087 EA 1 Piece Reinforced Concrete Lid For 30-1/4" x 48-1/4" Utility Box	417.88	106.01
33 14 19 00-0088 EA 2 Piece Reinforced Concrete Lid For 30-1/4" x 48-1/4" Utility Box	499.56	106.01
33 14 19 00-0089 EA 2 Piece Steel Checkered Plate Cover For 30-1/4" x 48-1/4" Utility Box	581.87	48.63
33 14 19 00-0090 EA 36" x 53" Reinforced Concrete Slab For 30-1/4" x 48-1/4" Utility Box	399.66	131.29
33 14 19 00-0091 EA 10" High Reinforced Concrete Extension For 30-1/4" x 48-1/4" Utility Box	331.02	88.49
33 14 19 00-0092 Water Utility Distribution Valves <small>(33 14 19)</small>		
33 14 19 00-0093 Angle Valves <small>(33 14 19 00-0092)</small>		
Note: For connecting meters to water service.		
33 14 19 00-0094 Threaded, Class 150, Bronze Angle Valve <small>(33 14 19 00-0093)</small>		
Note: Nibco T-335Y		
33 14 19 00-0095 EA 1/2" Threaded, Class 150, Bronze Angle Valve	89.11	15.42
33 14 19 00-0096 EA 3/4" Threaded, Class 150, Bronze Angle Valve	120.19	20.72
33 14 19 00-0097 EA 1" Threaded, Class 150, Bronze Angle Valve	162.17	25.55
33 14 19 00-0098 EA 1-1/4" Threaded, Class 150, Bronze Angle Valve	208.85	32.09
33 14 19 00-0099 EA 1-1/2" Threaded, Class 150, Bronze Angle Valve	281.10	37.11
33 14 19 00-0100 EA 2" Threaded, Class 150, Bronze Angle Valve	390.62	43.38
33 14 19 00-0101 EA 2-1/2" Threaded, Class 150, Bronze Angle Valve	626.71	59.20
33 14 19 00-0102 EA 3" Threaded, Class 150, Bronze Angle Valve	953.45	68.35
33 14 19 00-0103 Butterfly Valves <small>(33 14 19 00-0092)</small>		
33 14 19 00-0104 Lug Type Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valves <small>(33 14 19 00-0103)</small>		
33 14 19 00-0105 EA 3" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,3,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-HD8)	1,570.07	163.85
33 14 19 00-0106 EA 3" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,3,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-CW8)	1,744.07	163.85
33 14 19 00-0107 EA 4" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,4,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-HD8)	1,698.98	253.58
33 14 19 00-0108 EA 4" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,4,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-CW8)	1,872.98	253.58
33 14 19 00-0109 EA 6" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,6,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-HD8)	1,961.81	308.33
33 14 19 00-0110 EA 6" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,6,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-CW8)	2,135.81	308.33
33 14 19 00-0111 EA 8" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,8,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-HD8)	2,223.42	393.99
33 14 19 00-0112 EA 8" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,8,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-CW8)	2,396.42	393.99
33 14 19 00-0113 EA 10" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,10,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-HD8)	2,786.54	479.64
33 14 19 00-0114 EA 10" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,10,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-CW8)	2,786.54	479.64
33 14 19 00-0115 EA 12" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,12,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-HD8)	3,194.72	581.37

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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 19 00-0116 EA 12" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,12,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-CW8).....	3,368.72	581.37
33 14 19 00-0117 EA 14" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,14,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-HD12).....	4,209.87	755.89
33 14 19 00-0118 EA 14" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,14,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-CW12).....	4,664.87	755.89
33 14 19 00-0119 EA 16" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,16,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-HD16).....	4,901.35	831.48
33 14 19 00-0120 EA 16" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,16,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-CW20).....	5,459.35	831.48
33 14 19 00-0121 EA 18" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,18,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-HD24).....	6,138.74	922.19
33 14 19 00-0122 EA 18" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,18,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-CW24).....	6,729.74	922.19
33 14 19 00-0123 EA 20" Handwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,20,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-HD24).....	7,034.19	1,039.35
33 14 19 00-0124 EA 20" Chainwheel Operated, Flanged, ANSI Class 125, Cast Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Cast Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,20,F1,CI,NBRN-NBR,150B,CI-S2*GS-6B-CW24).....	7,624.19	1,039.35
33 14 19 00-0125 EA 24" Handwheel Operated, Flanged, ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Ductile Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,24,F1,DI,NBRN-NBR,150B,DI-S1,S304G0*MS-7-HD30).....	11,460.47	1,275.57
33 14 19 00-0126 EA 24" Chainwheel Operated, Flanged, ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Ductile Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,24,F1,DI,NBRN-NBR,150B,DI-S1,S304G0*MS-7-CW20).....	11,496.47	1,275.57
33 14 19 00-0127 EA 30" Handwheel Operated, Flanged, ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Ductile Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,30,F1,DI,NBRN-NBR,150B,DI-S2*MG-WR3L-HD24).....	23,979.65	2,162.91
33 14 19 00-0128 EA 36" Handwheel Operated, Flanged, ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Ductile Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,36,F1,DI,NBRN-NBR,150B,DI-S2*MG-WR3L-HD24).....	28,331.86	2,883.89
33 14 19 00-0129 EA 42" Handwheel Operated, Flanged, ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Ductile Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,42,F1,DI,NBRN-NBR,150B,DI-S2*MG-WR3L-HD32).....	35,756.29	4,325.84
33 14 19 00-0130 EA 48" Handwheel Operated, Flanged, ANSI Class 125, Ductile Iron Body, Acrylonitrile-Butadiene Packing, Acrylonitrile-Butadiene Seat, Class AWWA C-504, Ductile Iron Disc, 304 Stainless Steel Pin, Butterfly Valve (DeZurik BAW,48,F1,DI,NBRN-NBR,150B,DI-S2*MG-WR4L-HD24).....	48,663.11	5,407.29
33 14 19 00-0131 Check Valves (33 14 19 00-0092)		
33 14 19 00-0132 Flanged, Swing Type Gravity Operated Check Valves (33 14 19 00-0131) Note: AWWA C508, Bronze disc facing, Mueller A-2600-6.		
33 14 19 00-0133 EA 2-1/2" Flanged, Swing Type Gravity Operated Check Valve.....	774.07	128.69
33 14 19 00-0134 EA 3" Flanged, Swing Type Gravity Operated Check Valve.....	801.54	150.89
33 14 19 00-0135 EA 4" Flanged, Swing Type Gravity Operated Check Valve.....	1,134.98	190.82
33 14 19 00-0136 EA 4" x 6" Flanged, Swing Type Gravity Operated Check Valve.....	1,542.26	287.13
33 14 19 00-0137 EA 4" x 8" Flanged, Swing Type Gravity Operated Check Valve.....	1,608.28	320.66
33 14 19 00-0138 EA 6" Flanged, Swing Type Gravity Operated Check Valve.....	1,537.58	319.53
33 14 19 00-0139 EA 6" x 8" Flanged, Swing Type Gravity Operated Check Valve.....	1,993.49	363.20
33 14 19 00-0140 EA 6" x 10" Flanged, Swing Type Gravity Operated Check Valve.....	2,088.06	408.28
33 14 19 00-0141 EA 8" Flanged, Swing Type Gravity Operated Check Valve.....	2,171.04	408.28
33 14 19 00-0142 EA 10" Flanged, Swing Type Gravity Operated Check Valve.....	3,606.72	497.04
33 14 19 00-0143 EA 12" Flanged, Swing Type Gravity Operated Check Valve.....	5,418.81	372.78
33 14 19 00-0144 EA 14" Flanged, Swing Type Gravity Operated Check Valve.....	7,554.72	755.89
33 14 19 00-0145 EA 16" Flanged, Swing Type Gravity Operated Check Valve.....	9,997.82	831.48
33 14 19 00-0146 EA 18" Flanged, Swing Type Gravity Operated Check Valve.....	14,421.24	922.19
33 14 19 00-0147 EA 20" Flanged, Swing Type Gravity Operated Check Valve.....	16,780.09	1,039.35
33 14 19 00-0148 Combination Air Release Valves (33 14 19 00-0092)		
33 14 19 00-0149 EA 1" Combination Air Release Valve.....	434.61	18.64
33 14 19 00-0150 EA 2" Combination Air Release Valve.....	702.10	31.95
33 14 19 00-0151 Corporation Stop And Curb Valve (33 14 19 00-0092) Note: AWWA C800		
33 14 19 00-0152 Ball Corporation Valves (33 14 19 00-0151) Note: Mueller B-25000.		
33 14 19 00-0153 EA 3/4" Ball Corporation Valve (Mueller B-25000).....	72.11	18.64
33 14 19 00-0154 EA 1" Ball Corporation Valve (Mueller B-25000).....	90.62	23.08
33 14 19 00-0155 EA 1-1/2" Ball Corporation Valve (Mueller B-25000).....	162.64	33.73
33 14 19 00-0156 EA 2" Ball Corporation Valve (Mueller B-25000).....	245.47	39.94



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 19 00-0157 Gate Valve, AWWA C500 And C509 <small>(33 14 19 00-0092)</small>		
33 14 19 00-0158 Gate Valve, Flanged <small>(33 14 19 00-0157)</small> Note: Mueller A-2380-6.		
33 14 19 00-0159 EA 2" Gate Valve, Flanged	493.61	118.31
33 14 19 00-0160 EA 2-1/2" Gate Valve, Flanged	574.13	128.69
33 14 19 00-0161 EA 3" Gate Valve, Flanged	678.68	150.89
33 14 19 00-0162 EA 4" Gate Valve, Flanged	925.48	189.05
33 14 19 00-0163 EA 6" Gate Valve, Flanged	1,132.56	319.53
33 14 19 00-0164 EA 8" Gate Valve, Flanged	1,650.64	408.28
33 14 19 00-0165 EA 10" Gate Valve, Flanged	2,438.37	497.04
33 14 19 00-0166 EA 12" Gate Valve, Flanged	2,939.42	372.78
33 14 19 00-0167 EA 14" Gate Valve, Flanged	6,184.40	755.89
33 14 19 00-0168 EA 16" Gate Valve, Flanged	8,040.90	831.48
33 14 19 00-0169 EA 18" Gate Valve, Flanged	12,613.07	922.19
33 14 19 00-0170 EA 20" Gate Valve, Flanged	15,063.27	1,039.35
33 14 19 00-0171 Resilient Wedge Gate Valve, Flanged <small>(33 14 19 00-0157)</small> Note: Mueller A-2360-6.		
33 14 19 00-0172 EA 2" Resilient Wedge Gate Valve, Flanged	474.06	118.31
33 14 19 00-0173 EA 2-1/2" Resilient Wedge Gate Valve, Flanged	550.77	128.69
33 14 19 00-0174 EA 3" Resilient Wedge Gate Valve, Flanged	650.95	150.89
33 14 19 00-0175 EA 4" Resilient Wedge Gate Valve, Flanged	894.49	189.05
33 14 19 00-0176 EA 6" Resilient Wedge Gate Valve, Flanged	1,091.13	319.53
33 14 19 00-0177 EA 8" Resilient Wedge Gate Valve, Flanged	1,585.92	408.28
33 14 19 00-0178 EA 10" Resilient Wedge Gate Valve, Flanged	2,335.53	497.04
33 14 19 00-0179 EA 12" Resilient Wedge Gate Valve, Flanged	2,815.25	372.78
33 14 19 00-0180 Gate Valve, Mechanical Joint <small>(33 14 19 00-0157)</small> Note: Mueller A-2380-20.		
33 14 19 00-0181 EA 2" Gate Valve, Mechanical Joint	583.43	94.53
33 14 19 00-0182 EA 2-1/2" Gate Valve, Mechanical Joint	641.78	118.49
33 14 19 00-0183 EA 3" Gate Valve, Mechanical Joint	803.06	143.34
33 14 19 00-0184 EA 4" Gate Valve, Mechanical Joint	968.75	189.05
33 14 19 00-0185 EA 6" Gate Valve, Mechanical Joint	1,208.34	221.89
33 14 19 00-0186 EA 8" Gate Valve, Mechanical Joint	1,721.98	266.27
33 14 19 00-0187 EA 10" Gate Valve, Mechanical Joint	2,469.76	310.64
33 14 19 00-0188 EA 12" Gate Valve, Mechanical Joint	3,081.94	372.78
33 14 19 00-0189 EA 14" Gate Valve, Mechanical Joint	6,554.19	462.98
33 14 19 00-0190 EA 16" Gate Valve, Mechanical Joint	8,439.10	519.68
33 14 19 00-0191 EA 18" Gate Valve, Mechanical Joint	13,326.08	576.37
33 14 19 00-0192 EA 20" Gate Valve, Mechanical Joint	15,832.84	649.60
33 14 19 00-0193 Resilient Wedge Gate Valve, Mechanical Joint <small>(33 14 19 00-0157)</small> Note: Mueller A-2360-20.		
33 14 19 00-0194 EA 2" Resilient Wedge Gate Valve, Mechanical Joint	561.11	94.53
33 14 19 00-0195 EA 3" Resilient Wedge Gate Valve, Mechanical Joint	773.83	143.34
33 14 19 00-0196 EA 4" Resilient Wedge Gate Valve, Mechanical Joint	935.31	189.05
33 14 19 00-0197 EA 6" Resilient Wedge Gate Valve, Mechanical Joint	1,165.07	221.89
33 14 19 00-0198 EA 8" Resilient Wedge Gate Valve, Mechanical Joint	1,654.66	266.27
33 14 19 00-0199 EA 10" Resilient Wedge Gate Valve, Mechanical Joint	2,365.13	310.64
33 14 19 00-0200 EA 12" Resilient Wedge Gate Valve, Mechanical Joint	2,949.67	372.78
33 14 19 00-0201 Resilient Wedge Gate Valve, Mechanical Joint X Flange Joint <small>(33 14 19 00-0157)</small> Note: Mueller A-2361.		
33 14 19 00-0202 EA 14" Resilient Wedge Gate Valve, Mechanical Joint X Flanged Joint	4,941.28	755.89
33 14 19 00-0203 EA 16" Resilient Wedge Gate Valve, Mechanical Joint X Flanged Joint	5,375.20	831.48
33 14 19 00-0204 EA 18" Resilient Wedge Gate Valve, Mechanical Joint X Flanged Joint	8,248.60	922.19
33 14 19 00-0205 EA 20" Resilient Wedge Gate Valve, Mechanical Joint X Flanged Joint	9,823.43	1,039.35
33 14 19 00-0206 EA 24" Resilient Wedge Gate Valve, Mechanical Joint X Flanged Joint	13,881.67	1,275.57
33 14 19 00-0207 Gate Valve, Threaded, WW-V-51 Class A, Type 1 <small>(33 14 19 00-0157)</small> Note: NIBCO T-113.		
33 14 19 00-0208 EA 1/4" Gate Valve, Bronze, Threaded	51.47	15.52
33 14 19 00-0209 EA 3/8" Gate Valve, Bronze, Threaded	52.94	15.52
33 14 19 00-0210 EA 1/2" Gate Valve, Bronze, Threaded	52.27	15.52
33 14 19 00-0211 EA 3/4" Gate Valve, Bronze, Threaded	67.15	20.96
33 14 19 00-0212 EA 1" Gate Valve, Bronze, Threaded	82.87	25.34
33 14 19 00-0213 EA 1-1/4" Gate Valve, Bronze, Threaded	113.07	32.09
33 14 19 00-0214 EA 1-1/2" Gate Valve, Bronze, Threaded	131.24	37.11
33 14 19 00-0215 EA 2" Gate Valve, Bronze, Threaded	159.46	43.38
33 14 19 00-0216 EA 2-1/2" Gate Valve, Bronze, Threaded	311.74	59.20
33 14 19 00-0217 EA 3" Gate Valve, Bronze, Threaded	374.16	67.89
33 14 19 00-0218 Globe Valve, AWWA <small>(33 14 19 00-0092)</small>		



MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 19 00-0219			Globe Valve, Threaded, WW-V-51 Class B, Type 1 <small>(33 14 19 00-0218)</small>		
			Note: NIBCO T-235.		
33 14 19 00-0220	EA		1/8" Globe Valve, Threaded	73.58	15.52
33 14 19 00-0221	EA		1/4" Globe Valve, Threaded	70.61	15.52
33 14 19 00-0222	EA		3/8" Globe Valve, Threaded	72.08	15.52
33 14 19 00-0223	EA		1/2" Globe Valve, Threaded	73.58	15.52
33 14 19 00-0224	EA		3/4" Globe Valve, Threaded	99.95	20.96
33 14 19 00-0225	EA		1" Globe Valve, Threaded	140.95	25.34
33 14 19 00-0226	EA		1-1/4" Globe Valve, Threaded	206.95	32.09
33 14 19 00-0227	EA		1-1/2" Globe Valve, Threaded	247.26	37.11
33 14 19 00-0228	EA		2" Globe Valve, Threaded	346.45	43.38
33 14 19 00-0229	EA		2-1/2" Globe Valve, Threaded	639.58	59.20
33 14 19 00-0230	EA		3" Globe Valve, Threaded	877.89	68.26
33 14 19 00-0231			Tapping Valve, AWWA C500 And C509 <small>(33 14 19 00-0092)</small>		
33 14 19 00-0232			Tapping Valve, AWWA C500 And C509 <small>(33 14 19 00-0231)</small>		
			Note: Flanged inlet X mechanical joint, Mueller H-667.		
33 14 19 00-0233	EA		2" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	679.98	118.31
33 14 19 00-0234	EA		3" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	875.60	150.89
33 14 19 00-0235	EA		4" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	1,115.70	189.05
33 14 19 00-0236	EA		6" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	1,423.24	319.53
33 14 19 00-0237	EA		8" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	2,023.44	408.28
33 14 19 00-0238	EA		10" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	2,891.41	497.04
33 14 19 00-0239	EA		12" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	4,215.09	372.78
33 14 19 00-0240	EA		14" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	7,496.55	755.89
33 14 19 00-0241	EA		16" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	9,430.36	831.48
33 14 19 00-0242	EA		18" Resilient Wedge Tapping Gate Valve, Mechanical Joint X Flanged Joint.....	15,076.81	922.19
33 14 19 00-0243			Fire Hydrants <small>(33 14 19)</small>		
			Note: Breakaway type.		
33 14 19 00-0244			Three Way, Standard (Traditional) Model Fire Hydrant <small>(33 14 19 00-0243)</small>		
			Note: Mechanical joint shoe. Includes shoe, lower barrel and upper barrel (hydrant).		
33 14 19 00-0245	EA		1-1/2" Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	3,520.73	239.82
33 14 19 00-0246	EA		2" Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	3,587.24	239.82
33 14 19 00-0247	EA		2-1/2" Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	3,653.92	239.82
33 14 19 00-0248	EA		3" Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	3,737.41	256.95
33 14 19 00-0249	EA		3-1/2" Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	3,803.99	256.95
33 14 19 00-0250	EA		4" Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	3,892.04	278.36
33 14 19 00-0251	EA		4-1/2" Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	3,958.51	278.36
33 14 19 00-0252	EA		5" Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	4,046.59	299.78
33 14 19 00-0253	EA		5-1/2" Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	4,113.16	299.78
33 14 19 00-0254	EA		6" Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	4,201.03	321.18
33 14 19 00-0255	EA		6-1/2" Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	4,289.00	342.60
33 14 19 00-0256	EA		7" Burial Section, 4-1/2" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	4,398.27	385.42
33 14 19 00-0257	EA		1-1/2" Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	3,581.43	239.82
33 14 19 00-0258	EA		2" Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	3,667.74	239.82
33 14 19 00-0259	EA		2-1/2" Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	3,753.84	239.82
33 14 19 00-0260	EA		3" Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	3,857.07	256.95
33 14 19 00-0261	EA		3-1/2" Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	3,943.17	256.95
33 14 19 00-0262	EA		4" Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	4,051.00	278.36
33 14 19 00-0263	EA		4-1/2" Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	4,136.99	278.36
33 14 19 00-0264	EA		5" Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	4,244.60	299.78
33 14 19 00-0265	EA		5-1/2" Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	4,330.68	299.78
33 14 19 00-0266	EA		6" Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	4,438.03	321.18
33 14 19 00-0267	EA		6-1/2" Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	4,545.76	342.60
33 14 19 00-0268	EA		7" Burial Section, 5-1/4" Valve, Three Way, Standard Type (Traditional) Fire Hydrant	4,674.53	385.42
33 14 19 00-0269			Two Way, Standard (Traditional) Model Fire Hydrant <small>(33 14 19 00-0243)</small>		
			Note: Mechanical joint shoe. Includes shoe, lower barrel and upper barrel (hydrant).		
33 14 19 00-0270	EA		1-1/2" Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,155.65	239.82
33 14 19 00-0271	EA		2" Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,221.93	239.82
33 14 19 00-0272	EA		2-1/2" Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,288.59	239.82
33 14 19 00-0273	EA		3" Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,372.36	256.95
33 14 19 00-0274	EA		3-1/2" Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,438.72	256.95
33 14 19 00-0275	EA		4" Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,526.62	278.36
33 14 19 00-0276	EA		4-1/2" Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,593.19	278.36
33 14 19 00-0277	EA		5" Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,681.33	299.78
33 14 19 00-0278	EA		5-1/2" Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,747.76	299.78
33 14 19 00-0279	EA		6" Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,835.99	321.18
33 14 19 00-0280	EA		6-1/2" Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,923.54	342.60
33 14 19 00-0281	EA		7" Burial Section, 4-1/2" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	4,032.95	385.42
33 14 19 00-0282	EA		1-1/2" Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,249.41	239.82
33 14 19 00-0283	EA		2" Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,335.53	239.82
33 14 19 00-0284	EA		2-1/2" Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,421.52	239.82
33 14 19 00-0285	EA		3" Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,524.97	256.95
33 14 19 00-0286	EA		3-1/2" Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,610.85	256.95
33 14 19 00-0287	EA		4" Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,718.53	278.36



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 14 19 00-0288 EA 4-1/2' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,804.46	278.36
33 14 19 00-0289 EA 5' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,912.35	299.78
33 14 19 00-0290 EA 5-1/2' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	3,998.23	299.78
33 14 19 00-0291 EA 6' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	4,105.88	321.18
33 14 19 00-0292 EA 6-1/2' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	4,213.19	342.60
33 14 19 00-0293 EA 7' Burial Section, 5-1/4" Valve, Two Way, Standard Type (Traditional) Fire Hydrant.....	4,342.43	385.42
33 14 19 00-0294		
Three Way, Modern Model Fire Hydrant <small>(33 14 19 00-0243)</small>		
Note: Mechanical joint shoe. Includes shoe, lower barrel and upper barrel (hydrant).		
33 14 19 00-0295 EA 1-1/2' Burial Section, Three Way, Modern Type Fire Hydrant.....	3,675.95	239.82
33 14 19 00-0296 EA 2' Burial Section, Three Way, Modern Type Fire Hydrant.....	3,761.94	239.82
33 14 19 00-0297 EA 2-1/2' Burial Section, Three Way, Modern Type Fire Hydrant.....	3,848.19	239.82
33 14 19 00-0298 EA 3' Burial Section, Three Way, Modern Type Fire Hydrant.....	3,951.47	256.95
33 14 19 00-0299 EA 3-1/2' Burial Section, Three Way, Modern Type Fire Hydrant.....	4,037.52	256.95
33 14 19 00-0300 EA 4' Burial Section, Three Way, Modern Type Fire Hydrant.....	4,145.03	278.36
33 14 19 00-0301 EA 4-1/2' Burial Section, Three Way, Modern Type Fire Hydrant.....	4,231.20	278.36
33 14 19 00-0302 EA 5' Burial Section, Three Way, Modern Type Fire Hydrant.....	4,338.74	299.78
33 14 19 00-0303 EA 5-1/2' Burial Section, Three Way, Modern Type Fire Hydrant.....	4,424.82	299.78
33 14 19 00-0304 EA 6' Burial Section, Three Way, Modern Type Fire Hydrant.....	4,532.32	299.78
33 14 19 00-0305 EA 6-1/2' Burial Section, Three Way, Modern Type Fire Hydrant.....	4,640.10	342.60
33 14 19 00-0306 EA 7' Burial Section, Three Way, Modern Type Fire Hydrant.....	4,767.97	342.60
33 14 19 00-0307		
Two Way, Modern Model Fire Hydrant <small>(33 14 19 00-0243)</small>		
Note: Mechanical joint shoe. Includes shoe, lower barrel and upper barrel (hydrant).		
33 14 19 00-0308 EA 1-1/2' Burial Section, Two Way, Modern Type Fire Hydrant.....	2,597.69	239.82
33 14 19 00-0309 EA 2' Burial Section, Two Way, Modern Type Fire Hydrant.....	2,663.13	239.82
33 14 19 00-0310 EA 2-1/2' Burial Section, Two Way, Modern Type Fire Hydrant.....	2,729.30	239.82
33 14 19 00-0311 EA 3' Burial Section, Two Way, Modern Type Fire Hydrant.....	2,811.10	256.95
33 14 19 00-0312 EA 3-1/2' Burial Section, Two Way, Modern Type Fire Hydrant.....	2,876.52	256.95
33 14 19 00-0313 EA 4' Burial Section, Two Way, Modern Type Fire Hydrant.....	2,963.35	278.36
33 14 19 00-0314 EA 4-1/2' Burial Section, Two Way, Modern Type Fire Hydrant.....	3,028.75	278.36
33 14 19 00-0315 EA 5' Burial Section, Two Way, Modern Type Fire Hydrant.....	3,115.67	299.78
33 14 19 00-0316 EA 5-1/2' Burial Section, Two Way, Modern Type Fire Hydrant.....	3,180.90	299.78
33 14 19 00-0317 EA 6' Burial Section, Two Way, Modern Type Fire Hydrant.....	3,267.74	321.18
33 14 19 00-0318 EA 6-1/2' Burial Section, Two Way, Modern Type Fire Hydrant.....	3,354.67	342.60
33 14 19 00-0319 EA 7' Burial Section, Two Way, Modern Type Fire Hydrant.....	3,462.10	385.42
33 14 19 00-0320		
Fire Hydrant Extension Kits <small>(33 14 19 00-0243)</small>		
33 14 19 00-0321 EA 6" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit.....	532.85	21.42
33 14 19 00-0322 EA 12" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit.....	631.81	26.76
33 14 19 00-0323 EA 18" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit.....	686.24	32.12
33 14 19 00-0324 EA 24" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit.....	776.95	39.61
33 14 19 00-0325 EA 30" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit.....	1,191.59	41.22
33 14 19 00-0326 EA 36" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit.....	1,273.87	42.82
33 14 19 00-0327 EA 42" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit.....	1,291.78	44.97
33 14 19 00-0328 EA 48" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit.....	1,363.72	48.18
33 14 19 00-0329 EA 54" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit.....	1,498.82	57.81
33 14 19 00-0330 EA 60" Long, 4-1/2" Diameter, Fire Hydrant Extension Kit.....	1,573.22	69.59
33 14 19 00-0331 EA 6" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit.....	593.02	23.98
33 14 19 00-0332 EA 12" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit.....	700.59	29.12
33 14 19 00-0333 EA 18" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit.....	802.53	35.12
33 14 19 00-0334 EA 24" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit.....	893.04	43.68
33 14 19 00-0335 EA 30" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit.....	1,237.01	45.40
33 14 19 00-0336 EA 36" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit.....	1,320.26	47.11
33 14 19 00-0337 EA 42" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit.....	1,376.41	49.68
33 14 19 00-0338 EA 48" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit.....	1,614.63	53.10
33 14 19 00-0339 EA 54" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit.....	1,764.21	63.38
33 14 19 00-0340 EA 60" Long, 5-1/4" Diameter, Fire Hydrant Extension Kit.....	1,844.04	76.23
33 14 19 00-0341		
Remove And Reinstall Standard Fire Hydrant <small>(33 14 19 00-0243)</small>		
Note: Includes all necessary fittings for resetting, storage and cleaning. Excludes excavation, backfill and thrust blocking around fire hydrant.		
33 14 19 00-0342 EA Up To 5' Burial Section, Removal And Reinstallation Of Fire Hydrant.....	685.19	
33 14 19 00-0343 EA >5' Burial Section, Removal And Reinstallation Of Fire Hydrant.....	999.24	
33 14 19 00-0344 EA Reset Fire Hydrant Upper Barrel.....	888.32	
Note: Includes Safety Repair Kit		
33 14 19 00-0345		
Yard Hydrants <small>(33 14 19)</small>		
Note: With 3/4" hose thread outlet.		
33 14 19 00-0346 EA 2' Bury Depth Yard Hydrant, 3/4" Galvanized Column And 3/4" Threaded Hose Outlet.....	324.70	28.91
33 14 19 00-0347 EA 4' Bury Depth Yard Hydrant, 3/4" Galvanized Column And 3/4" Threaded Hose Outlet.....	349.77	28.91
33 14 19 00-0348 EA 6' Bury Depth Yard Hydrant, 3/4" Galvanized Column And 3/4" Threaded Hose Outlet.....	374.84	28.91
33 14 19 00-0349 EA 2' Bury Depth Yard Hydrant, 1" Galvanized Column And 3/4" Threaded Hose Outlet.....	251.87	36.63
33 14 19 00-0350 EA 4' Bury Depth Yard Hydrant, 1" Galvanized Column And 3/4" Threaded Hose Outlet.....	263.07	36.63
33 14 19 00-0351 EA 6' Bury Depth Yard Hydrant, 1" Galvanized Column And 3/4" Threaded Hose Outlet.....	274.28	36.63

33 Utilities**33 10 Water Utilities****33 14 Water Utility Transmission and Distribution**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 14 19 00-0352	Sanitary Yard Hydrants <small>(33 14 19)</small>		
	Note: With 3/4" hose thread outlet.		
33 14 19 00-0353	EA 2' Bury Depth Sanitary Yard Hydrant, 1" Galvanized Column And 3/4" Threaded Hose Outlet	1,505.66	60.24
33 14 19 00-0354	EA 4' Bury Depth Sanitary Yard Hydrant, 1" Galvanized Column And 3/4" Threaded Hose Outlet	1,584.01	60.24
33 14 19 00-0355	EA 6' Bury Depth Sanitary Yard Hydrant, 1" Galvanized Column And 3/4" Threaded Hose Outlet	1,662.35	60.24

33 14 19 00-0356	Flushing Hydrants <small>(33 14 19)</small>		
33 14 19 00-0357	EA 2" Inlet x 2-1/2" Outlet Steel Flushing Hydrant, 3' Bury Depth	531.78	36.96

33 14 23 Enclosures for Water Utility Piping and Valves (33 14)

See CSI section 22 11 19 00-0464 for Enclosures.

33 16 Water Utility Storage Tanks (33 10)**33 16 23 Ground-Level Steel Water Storage Tanks** (33 16)

See CSI section 23 13 23 16-0000 for aboveground steel storage tanks.

33 19 Water Utility Metering Equipment (33 10)**33 19 13 Positive Displacement Water Meters** (33 19)**33 19 13 23 Nutating Disc Water Meters** (33 19 13)

33 19 13 23-0001	Bronze Disk Type Water Service Meters <small>(33 19 13 23)</small>		
33 19 13 23-0002	EA 5/8" Diameter, 0 To 20 GPM, Screwed, Disk Type, Bronze Water Supply Meter	283.85	50.12
33 19 13 23-0003	EA 3/4" Diameter, 0 To 30 GPM, Screwed, Disk Type, Bronze Water Supply Meter	357.32	59.76
33 19 13 23-0004	EA 1" Diameter, 0 To 50 GPM, Screwed, Disk Type, Bronze Water Supply Meter	481.68	68.43
33 19 13 23-0005	EA 1-1/2" Diameter, 0 To 100 GPM, Screwed, Disk Type, Bronze Water Supply Meter	941.95	102.16
33 19 13 23-0006	EA 2" Diameter, 0 To 160 GPM, Screwed, Disk Type, Bronze Water Supply Meter	1,277.07	133.01

33 19 13 23-0007 Magnetic Driven, Positive Displacement Type Water Service Meters (33 19 13 23)

33 19 13 23-0008	EA 5/8" Diameter Transmitting Water Supply Meter, Screwed, 150 PSI Max. (Neptune T10 E-Coder/R900i)	348.10	50.12
	<i>For Owner Furnished Material, Deduct</i>	-297.37	
33 19 13 23-0009	EA 3/4" Diameter Transmitting Water Supply Meter, Screwed, 150 PSI Max. (Neptune T10 E-Coder/R900i)	397.56	59.76
	<i>For Owner Furnished Material, Deduct</i>	-337.32	
33 19 13 23-0010	EA 1" Diameter Transmitting Water Supply Meter, Screwed, 150 PSI Max. (Neptune T10 E-Coder/R900i)	586.42	68.43
	<i>For Owner Furnished Material, Deduct</i>	-517.58	
33 19 13 23-0011	EA 1-1/2" Diameter Transmitting Water Supply Meter, Screwed, 150 PSI Max. (Neptune T10 E-Coder/R900i)	988.74	102.16
	<i>For Owner Furnished Material, Deduct</i>	-886.21	
33 19 13 23-0012	EA 2" Diameter Transmitting Water Supply Meter, Screwed, 150 PSI Max. (Neptune T10 E-Coder/R900i)	1,225.92	133.01
	<i>For Owner Furnished Material, Deduct</i>	-1,092.06	
33 19 13 23-0013	EA Electronic Transmitter	277.52	24.10
	Note: For use with transmitting meter valve.		
	<i>For Owner Furnished Material, Deduct</i>	-253.42	

33 19 16 Velocity-Type Water Meters (33 19)**33 19 16 23 Turbine Water Meters** (33 19 16)

33 19 16 23-0001	Flanged Turbine Water Service Meter <small>(33 19 16 23)</small>		
33 19 16 23-0002	Vertical Turbine Meters <small>(33 19 16 23-0001)</small>		
33 19 16 23-0003	EA 1-1/2" Diameter, 0 - 100 GPM Vertical Turbine Meter, Flanged	562.57	93.20
33 19 16 23-0004	EA 2" Diameter, 0 - 160 GPM Vertical Turbine Meter, Flanged	783.37	118.31
33 19 16 23-0005	EA 3" Diameter, 0 - 350 GPM Vertical Turbine Meter, Flanged	1,313.08	150.89
33 19 16 23-0006	EA 4" Diameter, 0 - 650 GPM Vertical Turbine Meter, Flanged	2,019.61	285.79
33 19 16 23-0007	EA 6" Diameter, 0 - 1,300 GPM Vertical Turbine Meter, Flanged	3,724.67	319.53

33 19 16 23-0008 Horizontal Turbine Meters (33 19 16 23-0001)

33 19 16 23-0009	EA 1-1/2" Diameter, 0 - 120 GPM Horizontal Turbine Meter, Flanged	859.76	93.20
33 19 16 23-0010	EA 2" Diameter, 0 - 160 GPM Horizontal Turbine Meter, Flanged	1,207.65	118.31
33 19 16 23-0011	EA 3" Diameter, 0 - 600 GPM Horizontal Turbine Meter, Flanged	1,483.18	150.89
33 19 16 23-0012	EA 4" Diameter, 0 - 1,000 GPM Horizontal Turbine Meter, Flanged	2,244.46	285.79
33 19 16 23-0013	EA 6" Diameter, 0 - 2,000 GPM Horizontal Turbine Meter, Flanged	4,543.90	319.53
33 19 16 23-0014	EA 8" Diameter, 0 - 3,500 GPM Horizontal Turbine Meter, Flanged	6,081.46	408.28
33 19 16 23-0015	EA 10" Diameter, 0 - 5,500 GPM Horizontal Turbine Meter, Flanged	8,508.57	497.04
33 19 16 23-0016	EA 12" Diameter, 0 - 6,600 GPM Horizontal Turbine Meter, Flanged	10,875.33	1,002.95

33 19 19 Compound Water Meters (33 19)

33 19 19 00-0001	Flanged Compound Type Water Service Meter <small>(33 19 19)</small>		
33 19 19 00-0002	EA 2" Diameter, 0 To 160 GPM, Flanged And Bronze, Compound Type Water Service Meter	2,226.31	118.31
33 19 19 00-0003	EA 3" Diameter, 0 To 320 GPM, Flanged And Bronze, Compound Type Water Service Meter	2,599.60	150.89
33 19 19 00-0004	EA 4" Diameter, 0 To 500 GPM, Flanged And Bronze, Compound Type Water Service Meter	4,363.89	285.79
33 19 19 00-0005	EA 6" Diameter, 0 To 1,000 GPM, Flanged And Bronze, Compound Type Water Service Meter	6,018.12	319.53
33 19 19 00-0006	EA 8" Diameter, 0 To 1,600 GPM, Flanged And Bronze, Compound Type Water Service Meter	12,433.90	408.28
33 19 19 00-0007	EA 10" Diameter, 0 To 2,500 GPM, Flanged And Bronze, Compound Type Water Service Meter	21,346.41	497.04



Utilities	33	CS
Water Utilities	33 10	
Water Utility Metering Equipment	33 19	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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33 19 23 Magnetic Water Meters (33 19)

33 19 23 00-0001	Flanged Electromagnetic Flow (EMF) Water Meter <small>(33 19 23)</small>		
33 19 23 00-0002	EA 2" Diameter, Flanged, Stainless Steel, Electromagnetic Flow (EMF) Water Meter (Sensus Accu-MAG)	5,061.34	118.31
33 19 23 00-0003	EA 3" Diameter, Flanged, Stainless Steel, Electromagnetic Flow (EMF) Water Meter (Sensus Accu-MAG)	6,994.26	150.89
33 19 23 00-0004	EA 4" Diameter, Flanged, Stainless Steel, Electromagnetic Flow (EMF) Water Meter (Sensus Accu-MAG)	8,057.79	285.79

33 30 Sanitary Sewerage Utilities (33)

33 31 Sanitary Sewerage Piping (33 30)

33 31 11 Public Sanitary Sewerage Gravity Piping (33 31)

Note: Piping includes hydrostatic testing, disinfecting and warning tape. Excludes excavation and backfill. See CSI section 31 23 16 00-0000 for excavation, 31 23 16 36-0016 for backfill.

33 31 11 00-0001 Cast Iron Service Saddles With U Bolt (33 31 11)

33 31 11 00-0002	EA 2" Diameter x 2" Tapped Tee Cast Iron Service Saddles With U Bolt	96.91	
33 31 11 00-0003	EA 3" Diameter x 1-1/2" Tapped Tee Cast Iron Service Saddles With U Bolt	97.38	
33 31 11 00-0004	EA 3" Diameter x 2" Tapped Tee Cast Iron Service Saddles With U Bolt	107.26	
33 31 11 00-0005	EA 4" Diameter x 1-1/2" Tapped Tee Cast Iron Service Saddles With U Bolt	103.63	
33 31 11 00-0006	EA 4" Diameter x 2" Hub Tee Cast Iron Service Saddles With U Bolt	116.76	
33 31 11 00-0007	EA 4" Diameter x 3" Hub Tee Cast Iron Service Saddles With U Bolt	131.08	
33 31 11 00-0008	EA 4" Diameter x 4" Hub Tee Cast Iron Service Saddles With U Bolt	155.18	
33 31 11 00-0009	EA 6" Diameter x 2" Hub Tee Cast Iron Service Saddles With U Bolt	130.97	
33 31 11 00-0010	EA 6" Diameter x 3" Hub Tee Cast Iron Service Saddles With U Bolt	143.14	
33 31 11 00-0011	EA 6" Diameter x 4" Hub Tee Cast Iron Service Saddles With U Bolt	165.25	
33 31 11 00-0012	EA 4" Diameter x 1-1/2" Tapped Wye Cast Iron Service Saddle With U Bolt	106.31	
33 31 11 00-0013	EA 4" Diameter x 2" Tapped Wye Cast Iron Service Saddle With U Bolt	116.19	
33 31 11 00-0014	EA 4" Diameter x 3" Hub Wye Cast Iron Service Saddle With U Bolt	137.33	
33 31 11 00-0015	EA 4" Diameter x 4" Hub Wye Cast Iron Service Saddle With U Bolt	162.86	
33 31 11 00-0016	EA 6" Diameter x 4" Hub Wye Cast Iron Service Saddle With U Bolt	174.82	

33 31 11 00-0017 Plastic Sewer And Drain Piping (33 31 11)

33 31 11 00-0018 Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe (33 31 11 00-0017)

33 31 11 00-0019	LF 1-1/2" Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe	7.46	3.44
33 31 11 00-0020	LF 2" Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe	8.92	4.04
33 31 11 00-0021	LF 3" Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe	11.50	4.91
33 31 11 00-0022	LF 4" Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe	13.87	5.73
33 31 11 00-0023	LF 6" Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe	17.53	6.66
33 31 11 00-0024	LF 8" Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe	22.05	7.74
33 31 11 00-0025	LF 10" Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe	27.00	8.02
33 31 11 00-0026	LF 12" Schedule 40 Polyvinyl Chloride (PVC) Sewer And Drain Pipe	32.75	8.30

33 31 11 00-0027 Belled End Polyvinyl Chloride (PVC) Sewer And Drain Pipe (33 31 11 00-0017)

Note: D-2729 PVC pipe.

33 31 11 00-0028	LF 3" Belled End Polyvinyl Chloride (PVC) Sewer And Drain Pipe	10.83	4.91
33 31 11 00-0029	LF 4" Belled End Polyvinyl Chloride (PVC) Sewer And Drain Pipe	12.71	5.73
33 31 11 00-0030	LF 6" Belled End Polyvinyl Chloride (PVC) Sewer And Drain Pipe	15.79	6.66

33 31 11 00-0031 Polyvinyl Chloride (PVC) Sewer And Drain Fittings (33 31 11 00-0017)

33 31 11 00-0032 1/4 Bends, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0031)

33 31 11 00-0033	EA 1-1/2" 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	19.65	11.71
33 31 11 00-0034	EA 2" 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	25.31	15.15
33 31 11 00-0035	EA 3" 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	38.73	20.34
33 31 11 00-0036	EA 4" 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	52.54	23.52
33 31 11 00-0037	EA 6" 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	151.21	30.56
33 31 11 00-0038	EA 8" 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	242.08	41.13
33 31 11 00-0039	EA 10" 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	320.09	54.79

33 31 11 00-0040 1/8 Bends, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0031)

33 31 11 00-0041	EA 1-1/2" 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	20.13	11.71
33 31 11 00-0042	EA 2" 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	25.27	15.15
33 31 11 00-0043	EA 3" 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	38.01	20.34
33 31 11 00-0044	EA 4" 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	49.04	23.52
33 31 11 00-0045	EA 6" 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	142.29	30.56
33 31 11 00-0046	EA 8" 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	221.36	41.13
33 31 11 00-0047	EA 10" 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	259.15	54.79
33 31 11 00-0048	EA 12" 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	377.43	72.97

33 31 11 00-0049 Long Sweep 1/4 Bends, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0031)

33 31 11 00-0050	EA 1-1/2" Long Sweep 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	25.24	11.54
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33 Utilities**33 30 Sanitary Sewerage Utilities****33 31 Sanitary Sewerage Piping**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 31 11 00-0051 EA 2" Long Sweep 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	28.65	15.15
33 31 11 00-0052 EA 3" Long Sweep 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	48.00	20.79
33 31 11 00-0053 EA 4" Long Sweep 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	71.07	25.37
33 31 11 00-0054 EA 6" Long Sweep 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	118.83	29.33
33 31 11 00-0055 EA 8" Long Sweep 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	190.64	33.47
33 31 11 00-0056 EA 10" Long Sweep 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	295.74	39.02
33 31 11 00-0057 EA 12" Long Sweep 1/4 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	433.62	45.49
33 31 11 00-0058 1/16 Bends, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0031)		
33 31 11 00-0059 EA 1-1/2" 1/16 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	21.15	11.71
33 31 11 00-0060 EA 2" 1/16 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	26.30	15.15
33 31 11 00-0061 EA 3" 1/16 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	40.98	20.34
33 31 11 00-0062 EA 4" 1/16 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	54.56	23.52
33 31 11 00-0063 EA 6" 1/16 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	180.86	30.56
33 31 11 00-0064 EA 8" 1/16 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	285.24	41.13
33 31 11 00-0065 EA 10" 1/16 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	329.91	54.79
33 31 11 00-0066 EA 12" 1/16 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	353.84	72.97
33 31 11 00-0067 Reducers, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0031)		
33 31 11 00-0068 EA 2" x 1-1/2" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	24.22	13.37
33 31 11 00-0069 EA 3" x 1-1/2" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	37.17	15.96
33 31 11 00-0070 EA 3" x 2" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	37.49	17.60
33 31 11 00-0071 EA 4" x 2" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	50.78	19.24
33 31 11 00-0072 EA 4" x 3" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	55.65	21.83
33 31 11 00-0073 EA 6" x 4" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	133.40	27.01
33 31 11 00-0074 EA 8" x 6" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	263.36	35.82
33 31 11 00-0075 EA 10" x 4" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	95.10	39.11
33 31 11 00-0076 EA 10" x 6" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	120.78	42.66
33 31 11 00-0077 EA 10" x 8" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	120.61	47.91
33 31 11 00-0078 EA 12" x 6" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	287.38	51.79
33 31 11 00-0079 EA 12" x 8" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	305.72	57.03
33 31 11 00-0080 EA 12" x 10" Reducer, Polyvinyl Chloride (PVC) Sewer And Drain	327.02	63.88
33 31 11 00-0081 Sanitary Tees, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0031)		
33 31 11 00-0082 EA 1-1/2" Sanitary Tee, Polyvinyl Chloride (PVC) Sewer And Drain	30.23	17.71
33 31 11 00-0083 EA 2" Sanitary Tee, Polyvinyl Chloride (PVC) Sewer And Drain	39.58	22.90
33 31 11 00-0084 EA 3" Sanitary Tee, Polyvinyl Chloride (PVC) Sewer And Drain	59.45	30.21
33 31 11 00-0085 EA 4" Sanitary Tee, Polyvinyl Chloride (PVC) Sewer And Drain	83.10	37.53
33 31 11 00-0086 EA 6" Sanitary Tee, Polyvinyl Chloride (PVC) Sewer And Drain	217.89	41.13
33 31 11 00-0087 EA 8" Sanitary Tee, Polyvinyl Chloride (PVC) Sewer And Drain	284.18	54.79
33 31 11 00-0088 Wyes, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0031)		
33 31 11 00-0089 EA 1-1/2" Wye, Polyvinyl Chloride (PVC) Sewer And Drain	33.93	17.71
33 31 11 00-0090 EA 2" Wye, Polyvinyl Chloride (PVC) Sewer And Drain	41.73	22.90
33 31 11 00-0091 EA 3" Wye, Polyvinyl Chloride (PVC) Sewer And Drain	62.19	30.21
33 31 11 00-0092 EA 4" Wye, Polyvinyl Chloride (PVC) Sewer And Drain	87.60	37.53
33 31 11 00-0093 EA 6" Wye, Polyvinyl Chloride (PVC) Sewer And Drain	201.02	41.13
33 31 11 00-0094 EA 8" Wye, Polyvinyl Chloride (PVC) Sewer And Drain	252.14	54.79
33 31 11 00-0095 EA 10" Wye, Polyvinyl Chloride (PVC) Sewer And Drain	332.58	73.11
33 31 11 00-0096 EA 12" Wye, Polyvinyl Chloride (PVC) Sewer And Drain	508.36	97.57
33 31 11 00-0097 Reducing Wyes, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0031)		
33 31 11 00-0098 EA 2" x 1-1/2" x 1-1/2" Reducing Wye, Polyvinyl Chloride (PVC) Sewer And Drain	39.74	17.71
33 31 11 00-0099 EA 2" x 2" x 1" Reducing Wye, Polyvinyl Chloride (PVC) Sewer And Drain	47.38	22.90
33 31 11 00-0100 EA 3" x 3" x 2" Reducing Wye, Polyvinyl Chloride (PVC) Sewer And Drain	58.37	30.21
33 31 11 00-0101 EA 4" x 4" x 2" Reducing Wye, Polyvinyl Chloride (PVC) Sewer And Drain	81.43	37.53
33 31 11 00-0102 EA 4" x 4" x 3" Reducing Wye, Polyvinyl Chloride (PVC) Sewer And Drain	85.65	37.53
33 31 11 00-0103 Double Wyes, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0031)		
33 31 11 00-0104 EA 1-1/2" Double Wye, Polyvinyl Chloride (PVC) Sewer And Drain	50.05	22.90
33 31 11 00-0105 EA 2" Double Wye, Polyvinyl Chloride (PVC) Sewer And Drain	65.61	30.21
33 31 11 00-0106 EA 3" Double Wye, Polyvinyl Chloride (PVC) Sewer And Drain	113.46	40.78
33 31 11 00-0107 EA 4" Double Wye, Polyvinyl Chloride (PVC) Sewer And Drain	180.08	49.33
33 31 11 00-0108 EA 2" x 2" x 1-1/2" x 1-1/2" Double Wye, Polyvinyl Chloride (PVC) Sewer And Drain	63.86	30.21
33 31 11 00-0109 EA 3" x 3" x 2" x 2" Double Wye, Polyvinyl Chloride (PVC) Sewer And Drain	100.09	40.78
33 31 11 00-0110 EA 4" x 4" x 3" x 3" Double Wye, Polyvinyl Chloride (PVC) Sewer And Drain	158.00	49.33
33 31 11 00-0111 Combination Wye And 1/8 Bends, Polyvinyl Chloride (PVC) Sewer And Drain (33 31 11 00-0031)		
33 31 11 00-0112 EA 1-1/2" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	38.55	17.71
33 31 11 00-0113 EA 2" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	48.93	22.90
33 31 11 00-0114 EA 3" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	83.84	30.21



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 31 11 00-0115 EA 4" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain.....	136.14	37.53
33 31 11 00-0116 EA 2" x 2" x 1-1/2" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	64.61	22.90
33 31 11 00-0117 EA 3" x 3" x 1-1/2" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	98.04	30.21
33 31 11 00-0118 EA 3" x 3" x 2" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain.....	78.28	30.21
33 31 11 00-0119 EA 4" x 4" x 2" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain.....	129.48	37.53
33 31 11 00-0120 EA 4" x 4" x 3" Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain.....	135.57	37.53
33 31 11 00-0121 Double Combination Wye And 1/8 Bends, Polyvinyl Chloride (PVC) Sewer And Drain <small>(33 31 11 00-0031)</small>		
33 31 11 00-0122 EA 1-1/2" Double Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	53.63	22.90
33 31 11 00-0123 EA 2" Double Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	66.01	30.21
33 31 11 00-0124 EA 3" Double Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	97.02	40.78
33 31 11 00-0125 EA 4" Double Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	263.09	49.33
33 31 11 00-0126 EA 6" Double Combination Wye And 1/8 Bend, Polyvinyl Chloride (PVC) Sewer And Drain	768.41	54.62
33 31 11 00-0127 Cleanout Tees With Plug, Polyvinyl Chloride (PVC) Sewer And Drain <small>(33 31 11 00-0031)</small>		
33 31 11 00-0128 EA 4" Polyvinyl Chloride (PVC) Cleanout Tees With Plug, Sewer And Drain	260.17	95.40
33 31 11 00-0129 EA 6" Polyvinyl Chloride (PVC) Cleanout Tees With Plug, Sewer And Drain	524.69	123.08
33 31 11 00-0130 EA 8" Polyvinyl Chloride (PVC) Cleanout Tees With Plug, Sewer And Drain	683.65	173.45
33 31 11 00-0131 EA 10" Polyvinyl Chloride (PVC) Cleanout Tees With Plug, Sewer And Drain	980.10	279.01
33 31 11 00-0132 Couplings, Polyvinyl Chloride (PVC) Sewer And Drain <small>(33 31 11 00-0031)</small>		
33 31 11 00-0133 EA 1-1/2" Coupling, Polyvinyl Chloride (PVC) Sewer And Drain	19.42	11.71
33 31 11 00-0134 EA 2" Coupling, Polyvinyl Chloride (PVC) Sewer And Drain	24.58	15.06
33 31 11 00-0135 EA 3" Coupling, Polyvinyl Chloride (PVC) Sewer And Drain	35.49	20.17
33 31 11 00-0136 EA 4" Coupling, Polyvinyl Chloride (PVC) Sewer And Drain	43.75	23.52
33 31 11 00-0137 EA 6" Coupling, Polyvinyl Chloride (PVC) Sewer And Drain	92.92	30.56
33 31 11 00-0138 EA 8" Coupling, Polyvinyl Chloride (PVC) Sewer And Drain	197.55	41.13
33 31 11 00-0139 EA 10" Coupling, Polyvinyl Chloride (PVC) Sewer And Drain	292.80	54.79
33 31 11 00-0140 EA 12" Coupling, Polyvinyl Chloride (PVC) Sewer And Drain	468.31	72.97
33 31 11 00-0141 Adapters, Polyvinyl Chloride (PVC) Sewer And Drain <small>(33 31 11 00-0031)</small>		
33 31 11 00-0142 EA 4" Male, Plastic Pipe x Malleable Iron Pipe Adapter, Drain And Sewer Fitting.....	99.57	62.31
33 31 11 00-0143 EA 2" x 3" x 3" Downspout Adapter, Drain And Sewer Fitting	73.09	47.40
33 31 11 00-0144 EA 2" x 3" x 4" Downspout Adapter, Drain And Sewer Fitting	73.99	47.40
33 31 11 00-0145 EA 3" x 4" x 4" Downspout Adapter, Drain And Sewer Fitting	76.37	47.40
33 31 11 00-0146 EA 4" Hub, Cast Iron Pipe x Plastic Pipe Adapter, Drain And Sewer Fitting.....	100.23	62.31
33 31 11 00-0147 EA 4" Spigot, Clay Pipe x Plastic Pipe Adapter, Drain And Sewer Fitting.....	98.32	62.31
33 31 11 00-0148 EA 4" Spigot, Fiberglass Pipe x Plastic Pipe Adapter, Drain And Sewer Fitting	95.20	62.31
33 31 11 00-0149 EA 4" Drain Grate, Drain And Sewer Fitting	50.32	32.05
33 31 11 00-0150 Caps, Polyvinyl Chloride (PVC) Sewer And Drain <small>(33 31 11 00-0031)</small>		
33 31 11 00-0151 EA 3" Cap, Polyvinyl Chloride (PVC) Drain And Sewer Fitting	24.39	12.59
33 31 11 00-0152 EA 4" Cap, Polyvinyl Chloride (PVC) Drain And Sewer Fitting	35.86	15.68
33 31 11 00-0153 EA 6" Cap, Polyvinyl Chloride (PVC) Drain And Sewer Fitting	59.95	20.26
33 31 11 00-0154 Plug Cleanout, Polyvinyl Chloride (PVC) Sewer And Drain <small>(33 31 11 00-0031)</small>		
33 31 11 00-0155 EA 1-1/2" Plug Cleanout, Polyvinyl Chloride (PVC) Sewer And Drain	18.67	11.71
33 31 11 00-0156 EA 2" Plug Cleanout, Polyvinyl Chloride (PVC) Sewer And Drain	24.18	15.15
33 31 11 00-0157 EA 3" Plug Cleanout, Polyvinyl Chloride (PVC) Sewer And Drain	34.09	20.34
33 31 11 00-0158 EA 4" Plug Cleanout, Polyvinyl Chloride (PVC) Sewer And Drain	42.03	23.52
33 31 11 00-0159 EA 6" Plug Cleanout, Polyvinyl Chloride (PVC) Sewer And Drain	63.83	30.56
33 31 11 00-0160 EA 8" Plug Cleanout, Polyvinyl Chloride (PVC) Sewer And Drain	177.22	41.13
33 31 11 00-0161 Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe <small>(33 31 11 00-0017)</small>		
Note: ASTM 3034.		
33 31 11 00-0162 LF 4" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe.....	15.01	5.73
33 31 11 00-0163 LF 6" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe.....	20.11	6.66
33 31 11 00-0164 LF 8" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe.....	27.03	7.74
33 31 11 00-0165 LF 10" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe.....	33.36	8.02
33 31 11 00-0166 LF 12" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe.....	41.01	8.30
33 31 11 00-0167 LF 15" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe.....	53.80	8.59
33 31 11 00-0168 LF 18" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe.....	68.43	8.91
33 31 11 00-0169 LF 21" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe.....	89.14	9.67
33 31 11 00-0170 LF 24" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe.....	108.29	10.43
33 31 11 00-0171 LF 27" Gasketed SDR 35 Polyvinyl Chloride (PVC) Pipe.....	134.75	12.24
33 31 11 00-0172 Solvent Weld SDR 35 Polyvinyl Chloride (PVC) Pipe <small>(33 31 11 00-0017)</small>		
Note: ASTM 3034.		
33 31 11 00-0173 LF 4" Solvent Weld SDR 35 Polyvinyl Chloride (PVC) Pipe.....	13.51	5.73
33 31 11 00-0174 LF 6" Solvent Weld SDR 35 Polyvinyl Chloride (PVC) Pipe.....	17.43	6.66

33 Utilities**33 30 Sanitary Sewerage Utilities****33 31 Sanitary Sewerage Piping**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 31 11 00-0175	LF		8" Solvent Weld SDR 35 Polyvinyl Chloride (PVC) Pipe.....	22.67	7.74
33 31 11 00-0176			Gasketed SDR 35 Polyvinyl Chloride (PVC) Fittings (33 31 11 00-0017) Note: ASTM 3034.		
33 31 11 00-0177			1/4 Bends, Gasketed SDR 35 Polyvinyl Chloride (PVC) (33 31 11 00-0176)		
33 31 11 00-0178	EA		4" 1/4 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	62.67	21.84
33 31 11 00-0179	EA		6" 1/4 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	90.65	25.39
33 31 11 00-0180	EA		8" 1/4 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	181.88	28.79
33 31 11 00-0181	EA		10" 1/4 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	505.91	33.86
33 31 11 00-0182	EA		12" 1/4 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	653.55	43.17
33 31 11 00-0183			1/8 Bends, Gasketed SDR 35 Polyvinyl Chloride (PVC) (33 31 11 00-0176)		
33 31 11 00-0184	EA		4" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	57.27	21.84
33 31 11 00-0185	EA		6" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	84.69	25.39
33 31 11 00-0186	EA		8" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	166.83	28.79
33 31 11 00-0187	EA		10" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	364.18	33.86
33 31 11 00-0188	EA		12" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	518.79	43.17
33 31 11 00-0189	EA		15" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	1,102.15	60.95
33 31 11 00-0190	EA		18" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	1,745.38	86.35
33 31 11 00-0191	EA		21" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	2,902.69	114.28
33 31 11 00-0192	EA		24" 1/8 Bend, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	3,956.78	152.37
33 31 11 00-0193			Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC) (33 31 11 00-0176)		
33 31 11 00-0194	EA		4" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	94.77	32.76
33 31 11 00-0195	EA		6" x 4" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	147.46	36.31
33 31 11 00-0196	EA		6" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	164.87	38.10
33 31 11 00-0197	EA		8" x 4" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	181.33	39.87
33 31 11 00-0198	EA		8" x 6" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	206.41	41.65
33 31 11 00-0199	EA		8" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	384.09	43.43
33 31 11 00-0200	EA		10" x 4" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	488.49	44.44
33 31 11 00-0201	EA		10" x 6" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	552.46	46.56
33 31 11 00-0202	EA		10" x 8" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	809.47	48.33
33 31 11 00-0203	EA		10" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	1,051.30	50.79
33 31 11 00-0204	EA		12" x 4" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	600.88	54.10
33 31 11 00-0205	EA		12" x 6" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	637.41	55.87
33 31 11 00-0206	EA		12" x 8" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	902.71	57.64
33 31 11 00-0207	EA		12" x 10" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	1,294.94	60.10
33 31 11 00-0208	EA		12" Sanitary Tees, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	1,458.41	64.76
33 31 11 00-0209			Wyes, Gasketed SDR 35 Polyvinyl Chloride (PVC) (33 31 11 00-0176)		
33 31 11 00-0210	EA		4" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	90.58	32.76
33 31 11 00-0211	EA		6" x 4" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	133.50	36.31
33 31 11 00-0212	EA		6" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	146.12	38.10
33 31 11 00-0213	EA		8" x 4" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	175.34	39.87
33 31 11 00-0214	EA		8" x 6" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	199.27	41.65
33 31 11 00-0215	EA		8" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	298.77	43.43
33 31 11 00-0216	EA		10" x 4" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	448.08	44.78
33 31 11 00-0217	EA		10" x 6" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	457.35	46.56
33 31 11 00-0218	EA		10" x 8" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	681.41	48.33
33 31 11 00-0219	EA		10" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	753.20	50.79
33 31 11 00-0220	EA		12" x 4" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	567.08	54.10
33 31 11 00-0221	EA		12" x 6" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	584.91	55.87
33 31 11 00-0222	EA		12" x 8" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	830.74	57.64
33 31 11 00-0223	EA		12" x 10" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	998.12	60.10
33 31 11 00-0224	EA		12" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	1,042.78	64.76
33 31 11 00-0225	EA		15" x 10" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	1,284.53	77.88
33 31 11 00-0226	EA		15" x 12" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	1,423.91	82.53
33 31 11 00-0227	EA		15" Wye, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	1,776.65	91.43
33 31 11 00-0228			Couplings, Gasketed SDR 35 Polyvinyl Chloride (PVC) (33 31 11 00-0176)		
33 31 11 00-0229	EA		4" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	62.19	21.84
33 31 11 00-0230	EA		6" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	93.83	25.39
33 31 11 00-0231	EA		8" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	135.72	28.95
33 31 11 00-0232	EA		10" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	250.58	33.86
33 31 11 00-0233	EA		12" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	354.02	43.17
33 31 11 00-0234	EA		15" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	685.16	60.95
33 31 11 00-0235	EA		18" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	1,279.93	86.35
33 31 11 00-0236	EA		21" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	2,126.50	114.28
33 31 11 00-0237	EA		24" Coupling, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	3,074.35	152.37
33 31 11 00-0238			Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC) (33 31 11 00-0176)		
33 31 11 00-0239	EA		6" x 4" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	113.39	23.62
33 31 11 00-0240	EA		8" x 4" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	159.85	25.39



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 31 11 00-0241 EA 8" x 6" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	168.69	27.17
33 31 11 00-0242 EA 10" x 6" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	370.19	29.63
33 31 11 00-0243 EA 10" x 8" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	424.64	31.41
33 31 11 00-0244 EA 12" x 6" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	474.23	34.29
33 31 11 00-0245 EA 12" x 8" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	543.27	36.06
33 31 11 00-0246 EA 12" x 10" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	622.02	38.52
33 31 11 00-0247 EA 15" x 12" Increaser, Gasketed SDR 35 Polyvinyl Chloride (PVC).....	934.68	52.06
33 31 11 00-0248 Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC) <small>(33 31 11 00-0176)</small>		
33 31 11 00-0249 EA 6" x 4" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	95.64	
33 31 11 00-0250 EA 8" x 4" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	125.38	
33 31 11 00-0251 EA 8" x 6" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	127.96	
33 31 11 00-0252 EA 10" x 4" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	207.17	
33 31 11 00-0253 EA 10" x 6" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	218.00	
33 31 11 00-0254 EA 10" x 8" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	404.23	
33 31 11 00-0255 EA 12" x 4" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	236.80	
33 31 11 00-0256 EA 12" x 6" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	257.09	
33 31 11 00-0257 EA 12" x 8" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	557.76	
33 31 11 00-0258 EA 12" x 10" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	655.47	
33 31 11 00-0259 EA 15" x 4" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	275.29	
33 31 11 00-0260 EA 15" x 6" Saddle Wye With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	293.00	
33 31 11 00-0261 Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC) <small>(33 31 11 00-0176)</small>		
33 31 11 00-0262 EA 6" x 4" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	101.70	
33 31 11 00-0263 EA 8" x 4" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	125.38	
33 31 11 00-0264 EA 8" x 6" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	136.21	
33 31 11 00-0265 EA 10" x 4" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	191.11	
33 31 11 00-0266 EA 10" x 6" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	216.70	
33 31 11 00-0267 EA 10" x 8" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	323.40	
33 31 11 00-0268 EA 12" x 4" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	235.51	
33 31 11 00-0269 EA 12" x 6" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	255.87	
33 31 11 00-0270 EA 12" x 8" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	376.77	
33 31 11 00-0271 EA 12" x 10" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	455.68	
33 31 11 00-0272 EA 15" x 4" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	274.50	
33 31 11 00-0273 EA 15" x 6" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	287.00	
33 31 11 00-0274 EA 15" x 8" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	465.78	
33 31 11 00-0275 EA 15" x 10" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	513.39	
33 31 11 00-0276 EA 15" x 12" Saddle Tee With Stainless Steel Clamps, SDR 35 Polyvinyl Chloride (PVC).....	718.06	
33 31 11 00-0277 Couplings And Plug Fittings <small>(33 31 11)</small>		
33 31 11 00-0278 Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Polyvinyl Chloride (PVC) Flexible Pipe Couplings <small>(33 31 11 00-0277)</small>		
Note: For cast iron or plastic to cast iron to plastic pipe. Includes stainless steel clamps.		
33 31 11 00-0279 EA 1-1/2" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-150).....	18.58	5.83
33 31 11 00-0280 EA 2" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-22).....	20.21	6.81
33 31 11 00-0281 EA 3" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-33).....	23.82	7.78
33 31 11 00-0282 EA 4" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-44).....	27.35	8.26
33 31 11 00-0283 EA 5" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-55).....	34.78	8.75
33 31 11 00-0284 EA 6" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-66).....	42.28	9.72
33 31 11 00-0285 EA 8" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-88).....	55.95	10.70
33 31 11 00-0286 EA 10" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-1010).....	71.04	11.18
33 31 11 00-0287 EA 12" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-1212).....	124.68	11.67
33 31 11 00-0288 EA 15" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-1515).....	173.78	12.64
33 31 11 00-0289 EA 18" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-1818).....	347.45	13.13
33 31 11 00-0290 EA 21" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-2121).....	405.31	13.86
33 31 11 00-0291 EA 24" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-2424).....	449.93	14.59
33 31 11 00-0292 EA 27" Cast Iron/Plastic To Cast Iron/Plastic, Elastomeric Flexible Pipe Coupling (Fernco 1056-2727).....	540.63	15.56
33 32 Sanitary Sewerage Equipment <small>(33 30)</small>		
33 32 16 Packaged Wastewater Grinder Pump Assemblies <small>(33 32)</small>		
33 32 16 00-0001 Submersible Grinder Pumps, Cast Iron With Bronze Impeller <small>(33 32 16)</small>		
33 32 16 00-0002 EA 2 HP Submersible Grinder Pump, 200/208, 230 Volt, 1 Phase, 3450 RPM, 1-1/2" Threaded Discharge.....	2,063.73	289.34
Note: Zoeller 840 series.		
33 32 16 00-0003 EA 2 HP Submersible Grinder Pump, 200/208, 230, 460 Volt, 3 Phase, 3450 RPM, 1-1/2" Threaded Discharge.....	2,033.03	289.34
Note: Zoeller 840 series.		
33 32 16 00-0004 EA Simplex Control Panel With Auto Reversing Switch.....	989.95	96.41
Note: For Zoeller 840 series grinder pump.		
33 32 16 00-0005 EA Duplex Control Panel With Auto Reversing Switch.....	1,560.44	96.41
Note: For Zoeller 840 series grinder pump.		
33 32 16 00-0006 EA Grinder Pump, 120 Gallon Sewage Basin, 1 HP, 120 V (Environment One 2012-74).....	8,211.55	

33 Utilities**33 30 Sanitary Sewerage Utilities****33 32 Sanitary Sewerage Equipment**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 32 16 00-0007 Submersible Grinder Pumps (33 32 16) Note: Includes 50' of cord with pumps unless otherwise noted.		
33 32 16 00-0008 EA 2 HP Submersible Grinder Pump At 3,450 RPM, Explosion Proof.....	3,590.07	589.88
33 32 16 00-0009 EA 3 HP Submersible Grinder Pump At 3,450 RPM, Explosion Proof.....	5,438.50	688.20
33 32 16 00-0010 EA 5 HP Submersible Grinder Pump At 3,450 RPM, Explosion Proof.....	6,644.09	884.83
33 34 Onsite Wastewater Disposal (33 30) Note: Excludes distribution field piping, trenching or excavation.		
33 34 13 Septic Tanks (33 34)		
33 34 13 13 Concrete Septic Tanks (33 34 13)		
33 34 13 13-0001 Precast Concrete Septic Tank (33 34 13 13) Note: Includes external coating.		
33 34 13 13-0002 EA 1,000 Gallon Precast Septic Tank.....	2,609.15	589.88
For Non-Traffic Rated, Deduct	-471.18	
33 34 13 13-0003 EA 1,250 Gallon Precast Septic Tank.....	3,117.69	651.14
For Non-Traffic Rated, Deduct	-579.57	
33 34 13 13-0004 EA 1,500 Gallon Precast Septic Tank.....	3,607.37	712.29
For Non-Traffic Rated, Deduct	-683.22	
33 34 13 13-0005 EA 2,000 Gallon Precast Septic Tank.....	4,586.27	774.22
For Non-Traffic Rated, Deduct	-909.61	
33 34 13 13-0006 EA 2,500 Gallon Precast Septic Tank.....	5,509.88	1,069.17
For Non-Traffic Rated, Deduct	-1,050.43	
33 34 13 13-0007 EA 4,000 Gallon Precast Septic Tank.....	14,230.23	1,474.71
For Non-Traffic Rated, Deduct	-3,105.31	
33 34 13 13-0008 EA 5,000 Gallon Precast Septic Tank.....	25,728.78	2,212.07
For Non-Traffic Rated, Deduct	-5,755.76	
33 34 13 13-0009 EA 7,500 Gallon Precast Septic Tank.....	29,033.83	3,096.90
For Non-Traffic Rated, Deduct	-6,316.28	
33 34 13 13-0010 EA 10,000 Gallon Precast Septic Tank.....	35,576.29	3,705.27
For Non-Traffic Rated, Deduct	-7,763.46	
33 34 13 13-0011 EA 12,500 Gallon Precast Septic Tank.....	42,118.86	4,590.10
For Non-Traffic Rated, Deduct	-9,116.45	
33 34 13 23 Fiberglass Septic Tank (33 34 13)		
33 34 13 23-0001 Fiberglass Septic Tank (33 34 13 23)		
33 34 13 23-0002 EA 1,000 Gallon Fiberglass Septic Tank.....	1,568.85	442.41
33 34 13 23-0003 EA 1,250 Gallon Fiberglass Septic Tank.....	1,908.12	589.88
33 34 13 23-0004 EA 1,500 Gallon Fiberglass Septic Tank.....	2,067.85	534.64
33 34 13 23-0005 EA 2,000 Gallon Fiberglass Septic Tank.....	3,176.21	578.78
33 34 13 23-0006 EA 2,500 Gallon Fiberglass Septic Tank.....	4,054.67	802.25
33 34 13 23-0007 EA 4,000 Gallon Fiberglass Septic Tank.....	6,283.68	1,106.04
33 34 13 23-0008 EA 5,000 Gallon Fiberglass Septic Tank.....	9,345.04	1,659.05
33 34 13 23-0009 EA 7,500 Gallon Fiberglass Septic Tank.....	12,846.26	2,322.68
33 34 13 23-0010 EA 10,000 Gallon Fiberglass Septic Tank.....	15,717.12	2,776.11
33 34 13 33 Polyethylene Septic Tank (33 34 13)		
33 34 13 33-0001 High Density Polyethylene (HDPE) Septic Tank (33 34 13 33)		
33 34 13 33-0002 EA 300 Gallon One Compartment One Manhole High Density Polyethylene (HDPE) Septic Tank.....	849.08	177.51
33 34 13 33-0003 EA 500 Gallon One Compartment One Manhole High Density Polyethylene (HDPE) Septic Tank.....	1,272.38	199.70
33 34 13 33-0004 EA 900 Gallon One Compartment Two Manhole High Density Polyethylene (HDPE) Septic Tank.....	1,753.17	244.08
33 34 13 33-0005 EA 1,000 Gallon One Compartment Two Manhole High Density Polyethylene (HDPE) Septic Tank.....	1,807.75	266.27
33 34 13 33-0006 EA 1,250 Gallon One Compartment Two Manhole High Density Polyethylene (HDPE) Septic Tank.....	2,085.31	288.46
33 34 13 33-0007 EA 1,500 Gallon One Compartment Two Manhole High Density Polyethylene (HDPE) Septic Tank.....	2,485.29	310.64
33 34 13 33-0008 EA 750 Gallon Two Compartment Two Manhole High Density Polyethylene (HDPE) Septic Tank.....	1,753.97	221.89
33 34 13 33-0009 EA 1,000 Gallon Two Compartment Two Manhole High Density Polyethylene (HDPE) Septic Tank.....	1,924.34	266.27
33 34 13 33-0010 EA 1,250 Gallon Two Compartment Two Manhole High Density Polyethylene (HDPE) Septic Tank.....	2,251.45	288.46
33 34 13 33-0011 EA 1,500 Gallon Two Compartment Two Manhole High Density Polyethylene (HDPE) Septic Tank.....	2,631.03	310.64
33 34 51 Drainage Field System (33 34)		
33 34 51 00-0001 Leaching Pit - Precast Concrete (33 34 51) Note: Includes external coating.		
33 34 51 00-0002 EA 3' Diameter, 3' High, Precast Concrete Leaching Pit.....	731.35	86.52
33 34 51 00-0003 EA 4' Diameter, 3' High, Precast Concrete Leaching Pit.....	1,025.77	122.89
33 34 51 00-0004 EA 6' Diameter, 3' High, Precast Concrete Leaching Pit.....	1,366.41	147.47
33 34 51 00-0005 EA 8' Diameter, 4' High, Precast Concrete Leaching Pit.....	2,225.96	245.79
33 34 51 00-0006 EA 10' Diameter, 4' High, Precast Concrete Leaching Pit.....	3,244.84	344.10
33 34 53 Distribution Chambers (33 34)		
33 34 53 13 Drainage Field Concrete Distribution Chambers (33 34 53)		



Utilities	33	CS
Sanitary Sewerage Utilities	33 30	
Onsite Wastewater Disposal	33 34	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 34 53 13-0001 Concrete Distribution Boxes ^(33 34 53 13) Note: Includes internal and external coating.		
33 34 53 13-0002 EA 3 Outlet Concrete Distribution Box.....	233.43	57.69
33 34 53 13-0003 EA 5 Outlet Concrete Distribution Box.....	272.54	69.23
33 34 53 13-0004 EA 8 Outlet Concrete Distribution Box.....	460.30	80.77
33 34 53 13-0005 EA 12 Outlet Concrete Distribution Box.....	900.68	138.46
33 34 53 13-0006 Leaching Field Chambers - Precast Concrete ^(33 34 53 13)		
33 34 53 13-0007 EA Standard Leaching Field Chamber 13' x 3'-7" x 1'-4".....	861.06	78.68
33 34 53 13-0008 EA Heavy Duty Leaching Field Chamber 13' x 3'-9" x 1'-6".....	1,056.72	107.29
33 34 56 Drainage Field Dosing Chambers ^(33 34)		
33 34 56 00-0001 Dosing Siphon ^(33 34 56)		
33 34 56 00-0002 EA Dosing Siphon With Electrical Connection And Solenoid Valve.....	3,470.07	
33 34 56 00-0003 EA Solar Power Control For Dosing Siphon.....	2,361.30	
33 34 56 00-0004 EA Electrical Power Control For Dosing Siphon.....	2,269.22	
33 40 Stormwater Utilities ⁽³³⁾		
33 41 Subdrainage ^(33 40)		
33 41 16 Subdrainage Piping ^(33 41)		
33 41 16 13 Subdrainage Piping ^(33 41 16) See CSI section 33 42 11 00-0209 for polyethylene drain pipe.		
33 41 16 13-0001 Perforated Polyvinyl Chloride (PVC) Drainage Piping, D2729 ^(33 41 16 13) Note: Includes fittings, couplings, elbows, etc.		
33 41 16 13-0002 LF 3" Perforated Polyvinyl Chloride (PVC) Drainage Piping.....	5.74	3.67
33 41 16 13-0003 LF 4" Perforated Polyvinyl Chloride (PVC) Drainage Piping.....	6.26	3.96
33 41 16 13-0004 LF 6" Perforated Polyvinyl Chloride (PVC) Drainage Piping.....	8.71	4.76
33 41 16 13-0005 LF 8" Perforated Polyvinyl Chloride (PVC) Drainage Piping.....	13.32	5.94
33 41 16 13-0006 LF 10" Perforated Polyvinyl Chloride (PVC) Drainage Piping.....	21.55	6.79
33 41 16 13-0007 LF 12" Perforated Polyvinyl Chloride (PVC) Drainage Piping.....	27.68	7.92
33 41 16 13-0008 LF 15" Perforated Polyvinyl Chloride (PVC) Drainage Piping.....	46.12	9.50
33 41 16 13-0009 Perforated Non Reinforced Concrete Drainage Piping, C444 ^(33 41 16 13)		
33 41 16 13-0010 LF 6" Perforated Non Reinforced Concrete Drainage Pipe.....	26.56	10.67
For Extra Strength, Add	1.33	
For >1,000, Deduct	-1.33	
33 41 16 13-0011 LF 8" Perforated Non Reinforced Concrete Drainage Pipe.....	30.88	11.86
For Extra Strength, Add	1.64	
For >1,000, Deduct	-1.54	
33 41 16 13-0012 LF 10" Perforated Non Reinforced Concrete Drainage Pipe.....	34.85	13.04
For Extra Strength, Add	1.91	
For >1,000, Deduct	-1.74	
33 41 16 13-0013 LF 12" Perforated Non Reinforced Concrete Drainage Pipe.....	40.65	14.23
For Extra Strength, Add	2.39	
For >1,000, Deduct	-2.03	
33 41 16 13-0014 Extra Strength Porous Non Reinforced Concrete Drainage Piping, C654 ^(33 41 16 13) Note: Bell and spigot or tongue and groove. With seals and gaskets.		
33 41 16 13-0015 LF 6" Extra Strength Porous Non Reinforced Concrete Drainage Pipe.....	22.44	10.67
For >1,000, Deduct	-1.12	
33 41 16 13-0016 LF 8" Extra Strength Porous Non Reinforced Concrete Drainage Pipe.....	24.84	11.86
For >1,000, Deduct	-1.24	
33 41 16 13-0017 LF 10" Extra Strength Porous Non Reinforced Concrete Drainage Pipe.....	27.39	13.04
For >1,000, Deduct	-1.37	
33 41 16 13-0018 LF 12" Extra Strength Porous Non Reinforced Concrete Drainage Pipe.....	31.11	13.55
For >1,000, Deduct	-1.56	
33 41 16 13-0019 LF 15" Extra Strength Porous Non Reinforced Concrete Drainage Pipe.....	35.98	15.25
For >1,000, Deduct	-1.80	
33 41 16 13-0020 LF 18" Extra Strength Porous Non Reinforced Concrete Drainage Pipe.....	44.56	19.48
For >1,000, Deduct	-2.23	
33 41 16 13-0021 LF 21" Extra Strength Porous Non Reinforced Concrete Drainage Pipe.....	55.72	24.98
For >1,000, Deduct	-2.79	
33 41 16 13-0022 LF 24" Extra Strength Porous Non Reinforced Concrete Drainage Pipe.....	67.90	30.48
For >1,000, Deduct	-3.40	
33 41 16 13-0023 Standard Strength Porous Non Reinforced Concrete Drainage Piping, C654 ^(33 41 16 13)		
33 41 16 13-0024 LF 6" Standard Strength Porous Non Reinforced Concrete Drainage Pipe.....	21.08	10.67
For >1,000, Deduct	-1.05	



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 41 16 13-0025	LF		8" Standard Strength Porous Non Reinforced Concrete Drainage Pipe.....	26.35	11.86
			<i>For >1,000, Deduct</i>	-1.32	
33 41 16 13-0026	LF		10" Standard Strength Porous Non Reinforced Concrete Drainage Pipe.....	32.84	13.04
			<i>For >1,000, Deduct</i>	-1.64	
33 41 16 13-0027	LF		12" Standard Strength Porous Non Reinforced Concrete Drainage Pipe.....	39.45	14.23
			<i>For >1,000, Deduct</i>	-1.97	
33 41 16 13-0028	LF		15" Standard Strength Porous Non Reinforced Concrete Drainage Pipe.....	45.07	15.83
			<i>For >1,000, Deduct</i>	-2.25	
33 41 16 13-0029	LF		18" Standard Strength Porous Non Reinforced Concrete Drainage Pipe.....	58.21	19.74
			<i>For >1,000, Deduct</i>	-2.91	
33 41 16 13-0030			Perforated Vitrified Clay Drainage Piping, C700 <small>(33 41 16 13)</small>		
33 41 16 13-0031	LF		4" Perforated Vitrified Clay Drainage Pipe	23.37	11.86
33 41 16 13-0032	LF		6" Perforated Vitrified Clay Drainage Pipe	28.17	13.34
33 41 16 13-0033	LF		8" Perforated Vitrified Clay Drainage Pipe	32.74	13.34
33 41 16 13-0034	LF		10" Perforated Vitrified Clay Drainage Pipe	44.39	16.30
33 41 16 13-0035	LF		12" Perforated Vitrified Clay Drainage Pipe	53.25	17.78
33 41 16 13-0036			Geotextile Filter Fabric Sock <small>(33 41 16 13)</small>		
33 41 16 13-0037	LF		3" Geotextile Filter Fabric Sock	0.61	
33 41 16 13-0038	LF		4" Geotextile Filter Fabric Sock	0.80	
33 41 16 13-0039	LF		6" Geotextile Filter Fabric Sock	1.23	
33 41 16 13-0040	LF		8" Geotextile Filter Fabric Sock	1.65	
33 41 16 13-0041	LF		10" Geotextile Filter Fabric Sock	2.38	
33 41 16 13-0042	LF		12" Geotextile Filter Fabric Sock	3.19	
33 41 16 13-0043	LF		15" Geotextile Filter Fabric Sock	3.74	
33 41 16 13-0044			Strip-Perforated, Galvanized, Corrugated Steel Pipe <small>(33 41 16 13)</small>		
			Note: Perforations are located in the bottom quarter points of the pipe.		
33 41 16 13-0045	LF		6" Diameter, 16 Gauge, Strip-Perforated, Galvanized, Corrugated Steel Pipe	17.55	5.08
			<i>For Full Perforated, Add</i>	0.74	
33 41 16 13-0046	LF		8" Diameter, 16 Gauge, Strip-Perforated, Galvanized, Corrugated Steel Pipe	22.07	6.15
			<i>For Full Perforated, Add</i>	0.98	
33 41 16 13-0047	LF		10" Diameter, 16 Gauge, Strip-Perforated, Galvanized, Corrugated Steel Pipe	27.86	7.81
			<i>For Full Perforated, Add</i>	1.22	
33 41 16 13-0048	LF		12" Diameter, 16 Gauge, Strip-Perforated, Galvanized, Corrugated Steel Pipe	31.26	9.24
			<i>For Full Perforated, Add</i>	1.28	
33 41 16 13-0049	LF		15" Diameter, 16 Gauge, Strip-Perforated, Galvanized, Corrugated Steel Pipe	35.19	9.57
			<i>For Full Perforated, Add</i>	1.61	
33 41 16 13-0050	LF		18" Diameter, 16 Gauge, Strip-Perforated, Galvanized, Corrugated Steel Pipe	39.23	9.91
			<i>For Full Perforated, Add</i>	1.94	
33 41 16 13-0051	LF		21" Diameter, 16 Gauge, Strip-Perforated, Galvanized, Corrugated Steel Pipe	44.48	10.69
			<i>For Full Perforated, Add</i>	2.31	
33 41 16 13-0052			Strip-Perforated, Aluminized Type 2, Corrugated Steel Pipe <small>(33 41 16 13)</small>		
			Note: Perforations are located in the bottom quarter points of the pipe.		
33 41 16 13-0053	LF		6" Diameter, 16 Gauge, Strip-Perforated, Aluminized Type 2, Corrugated Steel Pipe	18.74	5.08
			<i>For Full Perforated, Add</i>	0.86	
33 41 16 13-0054	LF		8" Diameter, 16 Gauge, Strip-Perforated, Aluminized Type 2, Corrugated Steel Pipe	23.68	6.15
			<i>For Full Perforated, Add</i>	1.14	
33 41 16 13-0055	LF		10" Diameter, 16 Gauge, Strip-Perforated, Aluminized Type 2, Corrugated Steel Pipe	29.83	7.81
			<i>For Full Perforated, Add</i>	1.42	
33 41 16 13-0056	LF		12" Diameter, 16 Gauge, Strip-Perforated, Aluminized Type 2, Corrugated Steel Pipe	33.17	9.24
			<i>For Full Perforated, Add</i>	1.47	
33 41 16 13-0057	LF		15" Diameter, 16 Gauge, Strip-Perforated, Aluminized Type 2, Corrugated Steel Pipe	37.56	9.57
			<i>For Full Perforated, Add</i>	1.84	
33 41 16 13-0058	LF		18" Diameter, 16 Gauge, Strip-Perforated, Aluminized Type 2, Corrugated Steel Pipe	42.03	9.91
			<i>For Full Perforated, Add</i>	2.22	
33 41 16 13-0059	LF		21" Diameter, 16 Gauge, Strip-Perforated, Aluminized Type 2, Corrugated Steel Pipe	47.75	10.69
			<i>For Full Perforated, Add</i>	2.64	
33 41 16 13-0060			Strip-Perforated, Corrugated Aluminum Pipe <small>(33 41 16 13)</small>		
			Note: Perforations are located in the bottom quarter points of the pipe.		
33 41 16 13-0061	LF		6" Diameter, 16 Gauge, Strip-Perforated, Corrugated Aluminum Pipe	19.13	5.08
			<i>For Full Perforated, Add</i>	0.90	
33 41 16 13-0062	LF		8" Diameter, 16 Gauge, Strip-Perforated, Corrugated Aluminum Pipe	24.17	6.15
			<i>For Full Perforated, Add</i>	1.19	
33 41 16 13-0063	LF		10" Diameter, 16 Gauge, Strip-Perforated, Corrugated Aluminum Pipe	30.46	7.81
			<i>For Full Perforated, Add</i>	1.48	
33 41 16 13-0064	LF		12" Diameter, 16 Gauge, Strip-Perforated, Corrugated Aluminum Pipe	37.89	9.24
			<i>For Full Perforated, Add</i>	1.94	
33 41 16 13-0065	LF		15" Diameter, 16 Gauge, Strip-Perforated, Corrugated Aluminum Pipe	43.43	9.57
			<i>For Full Perforated, Add</i>	2.43	
33 41 16 13-0066	LF		18" Diameter, 16 Gauge, Strip-Perforated, Corrugated Aluminum Pipe	49.16	9.91
			<i>For Full Perforated, Add</i>	2.93	
33 41 16 13-0067	LF		21" Diameter, 16 Gauge, Strip-Perforated, Corrugated Aluminum Pipe	56.05	10.69
			<i>For Full Perforated, Add</i>	3.47	



	Utilities	33	
	Stormwater Utilities	33 40	CS
	Subdrainage	33 41	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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33 41 16 13-0068			Prefabricated Composite Drains (33 41 16 13)		
33 41 16 13-0069			Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE) (33 41 16 13-0068)		
Note: Excludes excavation and backfill. See CSI section 31 23 16 13-0000 for excavation and backfill.					
33 41 16 13-0070	LF		12" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE)	7.65	1.90
			For External Typar Geotextile Wrap, Add	1.21	
33 41 16 13-0071	EA		Coupler For 12" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE)	33.61	
33 41 16 13-0072	EA		End Cap For 12" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE)	33.61	
33 41 16 13-0073	EA		Side Outlet For 12" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE)	61.62	
33 41 16 13-0074	EA		End Outlet For 12" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE)	61.62	
33 41 16 13-0075	LF		18" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE)	11.87	2.37
			For External Typar Geotextile Wrap, Add	1.81	
33 41 16 13-0076	EA		Coupler For 18" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE)	47.99	
33 41 16 13-0077	EA		End Cap For 18" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE)	47.99	
33 41 16 13-0078	EA		Side Outlet For 18" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE)	68.15	
33 41 16 13-0079	EA		End Outlet For 18" Height, Panel-Shaped, Oblong Corrugated HDPE Drainage Pipe (ADS AdvanEDGE)	68.15	

33 41 19 Underslab Drainage (33 41)

33 41 19 13 Underslab Drainage Piping (33 41 19)

33 41 19 13-0001 Capillary Water Barrier Underslab Drainage (33 41 19 13)

Note: Consists of a layer of fine granular material overlying a coarse layer.					
33 41 19 13-0002	CY		2" Stone Capillary Water Barrier (Compacted Thickness) Underslab Drainage	63.99	
33 41 19 13-0003	CY		4" Stone Capillary Water Barrier (Compacted Thickness) Underslab Drainage	61.73	
33 41 19 13-0004	CY		6" Stone Capillary Water Barrier (Compacted Thickness) Underslab Drainage	60.83	
33 41 19 13-0005	CY		8" Stone Capillary Water Barrier (Compacted Thickness) Underslab Drainage	59.47	

33 42 Stormwater Conveyance (33 42)

Note: Piping includes hydrostatic testing, disinfecting and warning tape. See CSI section 31 23 16 00-0000 for excavation, 31 23 16 36-0016 for backfill.

33 42 11 Stormwater Gravity Piping (33 42)

33 42 11 00-0001 Reinforced Concrete Piping (33 42 11)

33 42 11 00-0002 Class 3 Reinforced Concrete Pipe Without Gaskets (33 42 11 00-0001)

33 42 11 00-0003	LF		12" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	39.31	14.23
			For >1,000, Deduct	-1.97	
			For Class 4, Add	1.80	
			For Class 5, Add	3.80	
33 42 11 00-0004	LF		15" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	46.93	15.83
			For >1,000, Deduct	-2.35	
			For Class 4, Add	2.31	
			For Class 5, Add	4.86	
33 42 11 00-0005	LF		18" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	53.78	19.74
			For >1,000, Deduct	-2.69	
			For Class 4, Add	2.43	
			For Class 5, Add	5.12	
33 42 11 00-0006	LF		21" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	68.81	24.90
			For >1,000, Deduct	-3.44	
			For Class 4, Add	3.16	
			For Class 5, Add	6.65	
33 42 11 00-0007	LF		24" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	80.80	30.23
			For >1,000, Deduct	-4.04	
			For Class 4, Add	3.57	
			For Class 5, Add	7.52	
33 42 11 00-0008	LF		27" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	101.89	38.09
			For >1,000, Deduct	-5.09	
			For Class 4, Add	4.51	
			For Class 5, Add	9.49	
33 42 11 00-0009	LF		30" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	108.20	39.34
			For >1,000, Deduct	-5.41	
			For Class 4, Add	4.88	
			For Class 5, Add	10.27	
33 42 11 00-0010	LF		36" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	132.84	44.70
			For >1,000, Deduct	-6.64	
			For Class 4, Add	6.61	
			For Class 5, Add	13.93	
33 42 11 00-0011	LF		42" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	170.31	49.18
			For >1,000, Deduct	-8.52	
			For Class 4, Add	9.57	
			For Class 5, Add	20.15	
33 42 11 00-0012	LF		48" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	203.20	54.76
			For >1,000, Deduct	-10.16	
			For Class 4, Add	11.87	
			For Class 5, Add	24.99	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0013	LF		54" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	251.68	62.59
			<i>For >1,000, Deduct</i>	-12.58	
			<i>For Class 4, Add</i>	15.42	
			<i>For Class 5, Add</i>	32.45	
33 42 11 00-0014	LF		60" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	303.27	72.60
			<i>For >1,000, Deduct</i>	-15.16	
			<i>For Class 4, Add</i>	18.96	
			<i>For Class 5, Add</i>	39.91	
33 42 11 00-0015	LF		66" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	460.64	80.47
			<i>For >1,000, Deduct</i>	-23.03	
			<i>For Class 4, Add</i>	32.89	
			<i>For Class 5, Add</i>	69.24	
33 42 11 00-0016	LF		72" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	536.18	87.61
			<i>For >1,000, Deduct</i>	-26.81	
			<i>For Class 4, Add</i>	39.05	
			<i>For Class 5, Add</i>	82.20	
33 42 11 00-0017	LF		78" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	643.32	98.34
			<i>For >1,000, Deduct</i>	-32.17	
			<i>For Class 4, Add</i>	47.74	
			<i>For Class 5, Add</i>	100.50	
33 42 11 00-0018	LF		84" Diameter Class 3 Reinforced Concrete Pipe Without Gaskets	824.95	109.53
			<i>For >1,000, Deduct</i>	-41.25	
			<i>For Class 4, Add</i>	63.51	
			<i>For Class 5, Add</i>	133.70	
33 42 11 00-0019			Concrete Reducing Wye Without Gaskets <small>(33 42 11 00-0001)</small>		
33 42 11 00-0020	EA		12" Concrete Reducing Wye Without Gaskets	453.34	54.20
33 42 11 00-0021	EA		15" Concrete Reducing Wye Without Gaskets	543.90	66.05
33 42 11 00-0022	EA		18" Concrete Reducing Wye Without Gaskets	670.17	72.83
33 42 11 00-0023	EA		21" Concrete Reducing Wye Without Gaskets	770.58	89.76
33 42 11 00-0024	EA		24" Concrete Reducing Wye Without Gaskets	872.31	108.39
33 42 11 00-0025			Concrete Pipe Joint Gaskets <small>(33 42 11 00-0001)</small>		
33 42 11 00-0026	EA		12" Diameter Concrete Pipe Joint Gasket	4.21	
33 42 11 00-0027	EA		15" Diameter Concrete Pipe Joint Gasket	4.98	
33 42 11 00-0028	EA		18" Diameter Concrete Pipe Joint Gasket	5.77	
33 42 11 00-0029	EA		21" Diameter Concrete Pipe Joint Gasket	6.98	
33 42 11 00-0030	EA		24" Diameter Concrete Pipe Joint Gasket	8.17	
33 42 11 00-0031	EA		27" Diameter Concrete Pipe Joint Gasket	9.11	
33 42 11 00-0032	EA		30" Diameter Concrete Pipe Joint Gasket	10.01	
33 42 11 00-0033	EA		36" Diameter Concrete Pipe Joint Gasket	12.22	
33 42 11 00-0034	EA		42" Diameter Concrete Pipe Joint Gasket	14.17	
33 42 11 00-0035	EA		48" Diameter Concrete Pipe Joint Gasket	16.35	
33 42 11 00-0036	EA		54" Diameter Concrete Pipe Joint Gasket	20.04	
33 42 11 00-0037	EA		60" Diameter Concrete Pipe Joint Gasket	29.66	
33 42 11 00-0038	EA		66" Diameter Concrete Pipe Joint Gasket	30.83	
33 42 11 00-0039	EA		72" Diameter Concrete Pipe Joint Gasket	31.97	
33 42 11 00-0040	EA		78" Diameter Concrete Pipe Joint Gasket	36.81	
33 42 11 00-0041	EA		84" Diameter Concrete Pipe Joint Gasket	44.13	
33 42 11 00-0042			Precast Concrete Cut Off Wall <small>(33 42 11 00-0001)</small>		
33 42 11 00-0043	EA		12" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	218.23	157.36
33 42 11 00-0044	EA		15" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	269.29	194.90
33 42 11 00-0045	EA		18" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	334.66	246.76
33 42 11 00-0046	EA		21" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	396.45	295.04
33 42 11 00-0047	EA		24" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	456.36	341.43
33 42 11 00-0048	EA		27" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	564.74	436.30
33 42 11 00-0049	EA		30" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	742.87	600.80
33 42 11 00-0050	EA		36" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	927.38	758.16
33 42 11 00-0051	EA		42" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	1,147.23	951.10
33 42 11 00-0052	EA		48" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	1,285.02	1,071.97
33 42 11 00-0053	EA		54" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	1,435.35	1,201.60
33 42 11 00-0054	EA		60" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	1,588.05	1,334.82
33 42 11 00-0055	EA		66" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	1,649.96	1,385.78
33 42 11 00-0056	EA		72" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	1,704.40	1,430.48
33 42 11 00-0057	EA		78" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	1,758.85	1,475.19
33 42 11 00-0058	EA		84" ID Pipe, 18" Thick, 36" High, Precast Concrete Cut Off Wall	1,814.51	1,519.89
33 42 11 00-0059			Strap Assembly <small>(33 42 11 00-0001)</small>		
			Note: Includes drilling holes in concrete pipe, setting threaded rod, bolts, and mounting the 12' strap.		
33 42 11 00-0060	EA		Up To 24" Diameter Pipe, 12' Strap Assembly	177.72	
33 42 11 00-0061	EA		>24" Diameter Pipe, 12' Strap Assembly	249.67	
33 42 11 00-0062			Prestressed Concrete Cylinder Piping <small>(33 42 11)</small>		
33 42 11 00-0063			150 PSI Prestressed Concrete Cylinder Pipe And Fittings <small>(33 42 11 00-0062)</small>		



Utilities	33	CS
Stormwater Utilities	33 40	
Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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33 42 11 00-0064	150 PSI Prestressed Concrete Cylinder Pipe With Gaskets <small>(33 42 11 00-0063)</small>		
	Note: Lined-cylinder pipe (AWWA C301) up to 48". Embedded-cylinder pipe (AWWA C301) >48".		
33 42 11 00-0065	LF 12" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	102.13	14.23
	For >1,000, Deduct	-5.11	
	For 100 PSI, Deduct	-20.45	
33 42 11 00-0066	LF 15" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	109.15	15.83
	For >1,000, Deduct	-5.46	
	For 100 PSI, Deduct	-21.64	
33 42 11 00-0067	LF 18" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	119.48	19.74
	For >1,000, Deduct	-5.97	
	For 100 PSI, Deduct	-22.82	
33 42 11 00-0068	LF 21" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	131.58	24.90
	For >1,000, Deduct	-6.58	
	For 100 PSI, Deduct	-24.00	
33 42 11 00-0069	LF 24" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	143.94	30.23
	For >1,000, Deduct	-7.20	
	For 100 PSI, Deduct	-25.19	
33 42 11 00-0070	LF 30" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	169.67	39.34
	For >1,000, Deduct	-8.48	
	For 100 PSI, Deduct	-28.20	
33 42 11 00-0071	LF 36" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	188.07	44.70
	For >1,000, Deduct	-9.40	
	For 100 PSI, Deduct	-31.22	
33 42 11 00-0072	LF 42" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	217.67	49.18
	For >1,000, Deduct	-10.88	
	For 100 PSI, Deduct	-37.03	
33 42 11 00-0073	LF 48" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	249.59	54.76
	For >1,000, Deduct	-12.48	
	For 100 PSI, Deduct	-42.84	
33 42 11 00-0074	LF 54" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	327.58	68.96
	For >1,000, Deduct	-16.38	
	For 100 PSI, Deduct	-57.27	
33 42 11 00-0075	LF 60" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	394.14	79.99
	For >1,000, Deduct	-19.71	
	For 100 PSI, Deduct	-69.97	
33 42 11 00-0076	LF 66" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	442.56	88.66
	For >1,000, Deduct	-22.13	
	For 100 PSI, Deduct	-79.12	
33 42 11 00-0077	LF 72" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	493.13	96.54
	For >1,000, Deduct	-24.66	
	For 100 PSI, Deduct	-88.80	
33 42 11 00-0078	LF 78" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	559.90	108.37
	For >1,000, Deduct	-28.00	
	For 100 PSI, Deduct	-101.18	
33 42 11 00-0079	LF 84" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	626.65	120.68
	For >1,000, Deduct	-31.33	
	For 100 PSI, Deduct	-113.56	
33 42 11 00-0080	LF 90" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	772.45	140.88
	For >1,000, Deduct	-38.62	
	For 100 PSI, Deduct	-142.62	
33 42 11 00-0081	LF 96" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	907.97	160.88
	For >1,000, Deduct	-45.40	
	For 100 PSI, Deduct	-169.53	
33 42 11 00-0082	LF 102" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	1,056.61	174.52
	For >1,000, Deduct	-52.83	
	For 100 PSI, Deduct	-201.83	
33 42 11 00-0083	LF 108" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	1,190.45	185.32
	For >1,000, Deduct	-59.52	
	For 100 PSI, Deduct	-231.43	
33 42 11 00-0084	LF 114" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	1,431.93	196.13
	For >1,000, Deduct	-71.60	
	For 100 PSI, Deduct	-287.94	
33 42 11 00-0085	LF 120" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	1,661.35	206.02
	For >1,000, Deduct	-83.07	
	For 100 PSI, Deduct	-341.76	
33 42 11 00-0086	LF 126" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	1,808.95	215.92
	For >1,000, Deduct	-90.45	
	For 100 PSI, Deduct	-375.13	
33 42 11 00-0087	LF 132" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	1,958.72	225.81
	For >1,000, Deduct	-97.94	
	For 100 PSI, Deduct	-409.03	
33 42 11 00-0088	LF 138" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	2,107.40	235.70
	For >1,000, Deduct	-105.37	
	For 100 PSI, Deduct	-442.67	
33 42 11 00-0089	LF 144" 150 PSI Prestressed Concrete Cylinder Pipe With Gaskets	2,256.09	245.60
	For >1,000, Deduct	-112.80	
	For 100 PSI, Deduct	-476.31	
33 42 11 00-0090	150 PSI Prestressed Concrete Cylinder 90 Degree Elbows With Gaskets <small>(33 42 11 00-0063)</small>		
33 42 11 00-0091	EA 12" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	376.54	133.38
33 42 11 00-0092	EA 15" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	523.15	190.53
33 42 11 00-0093	EA 18" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	676.01	254.04
33 42 11 00-0094	EA 21" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	828.87	317.55

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 42 11 00-0095	EA	24" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	1,009.65	394.62
33 42 11 00-0096	EA	30" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	1,288.78	529.27
33 42 11 00-0097	EA	36" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	1,595.87	625.84
33 42 11 00-0098	EA	42" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	1,859.16	730.44
33 42 11 00-0099	EA	48" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	2,097.30	834.15
33 42 11 00-0100	EA	54" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	2,585.28	1,041.57
33 42 11 00-0101	EA	60" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	3,334.30	1,379.25
33 42 11 00-0102	EA	66" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	3,721.11	1,527.03
33 42 11 00-0103	EA	72" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	4,107.90	1,674.80
33 42 11 00-0104	EA	78" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	4,905.61	1,921.10
33 42 11 00-0105	EA	84" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	5,697.88	2,167.39
33 42 11 00-0106	EA	90" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	6,728.02	2,462.95
33 42 11 00-0107	EA	96" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	7,752.73	2,758.49
33 42 11 00-0108	EA	102" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	10,310.45	3,508.53
33 42 11 00-0109	EA	108" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	12,805.31	4,210.23
33 42 11 00-0110	EA	114" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	16,686.82	5,613.65
33 42 11 00-0111	EA	120" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	20,501.91	7,017.07
33 42 11 00-0112	EA	126" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	23,029.00	7,568.41
33 42 11 00-0113	EA	132" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	25,559.80	8,119.74
33 42 11 00-0114	EA	138" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	32,761.39	8,671.09
33 42 11 00-0115	EA	144" 90 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	30,671.20	9,222.43

33 42 11 00-0116 150 PSI Prestressed Concrete Cylinder 45 Degree Elbows With Gaskets (33

42 11 00-0063)

33 42 11 00-0117	EA	12" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	354.58	133.38
33 42 11 00-0118	EA	15" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	494.74	190.53
33 42 11 00-0119	EA	18" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	642.42	254.04
33 42 11 00-0120	EA	21" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	790.12	317.55
33 42 11 00-0121	EA	24" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	965.73	394.62
33 42 11 00-0122	EA	30" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	1,228.50	493.70
33 42 11 00-0123	EA	36" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	1,526.98	625.84
33 42 11 00-0124	EA	42" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	1,779.50	730.44
33 42 11 00-0125	EA	48" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	2,011.62	834.15
33 42 11 00-0126	EA	54" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	2,458.03	1,041.57
33 42 11 00-0127	EA	60" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	3,218.33	1,379.25
33 42 11 00-0128	EA	66" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	3,596.73	1,527.03
33 42 11 00-0129	EA	72" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	3,975.13	1,674.80
33 42 11 00-0130	EA	78" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	4,595.67	1,921.10
33 42 11 00-0131	EA	84" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	5,210.78	2,167.39
33 42 11 00-0132	EA	90" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	6,113.31	2,462.95
33 42 11 00-0133	EA	96" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	7,010.40	2,758.49
33 42 11 00-0134	EA	102" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	9,096.13	3,448.12
33 42 11 00-0135	EA	108" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	11,360.65	4,210.23
33 42 11 00-0136	EA	114" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	14,890.68	5,613.65
33 42 11 00-0137	EA	120" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	18,354.28	7,017.07
33 42 11 00-0138	EA	126" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	20,408.51	7,568.41
33 42 11 00-0139	EA	132" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	22,466.44	9,222.43
33 42 11 00-0140	EA	138" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	24,530.18	8,671.09
33 42 11 00-0141	EA	144" 45 Degree Elbows With Gaskets, 150 PSI Prestressed Concrete Cylinder Piping	26,864.96	9,222.43

33 42 11 00-0142 400 PSI Prestressed Concrete Cylinder Pipe With Regular Joints (33 42 11 00-0062)**33 42 11 00-0143 400 PSI Lined Prestressed Concrete Cylinder Pipe With Regular Joints (33 42 11**

00-0142)

Note: AWWA C301

33 42 11 00-0144	LF	30" 400 PSI Lined Prestressed Concrete Cylinder Pipe With Regular Joints	197.98	39.34
		For >1,000, Deduct	-9.90	
33 42 11 00-0145	LF	36" 400 PSI Lined Prestressed Concrete Cylinder Pipe With Regular Joints	240.36	44.70
		For >1,000, Deduct	-12.02	
33 42 11 00-0146	LF	42" 400 PSI Lined Prestressed Concrete Cylinder Pipe With Regular Joints	279.75	49.18
		For >1,000, Deduct	-13.99	

33 42 11 00-0147 400 PSI Embedded Prestressed Concrete Cylinder Pipe With Regular Joints (33 42 11 00-0142)

Note: AWWA C301

33 42 11 00-0148	LF	48" 400 PSI Embedded Prestressed Concrete Cylinder Pipe With Regular Joints	374.28	54.71
		For >1,000, Deduct	-18.71	
33 42 11 00-0149	LF	54" 400 PSI Embedded Prestressed Concrete Cylinder Pipe With Regular Joints	447.26	68.96
		For >1,000, Deduct	-22.36	
33 42 11 00-0150	LF	60" 400 PSI Embedded Prestressed Concrete Cylinder Pipe With Regular Joints	515.70	79.99
		For >1,000, Deduct	-25.79	
33 42 11 00-0151	LF	66" 400 PSI Embedded Prestressed Concrete Cylinder Pipe With Regular Joints	580.21	88.66
		For >1,000, Deduct	-29.01	
33 42 11 00-0152	LF	72" 400 PSI Embedded Prestressed Concrete Cylinder Pipe With Regular Joints	700.58	96.54
		For >1,000, Deduct	-35.03	

33 42 11 00-0153 Welded Joints For Prestressed Concrete Cylinder Pipe (33 42 11 00-0142)

Note: All pipe joints to be exposed and dewatered. Internal joint welding also requires joints to be ventilated and air quality checked.



Utilities	33	33
Stormwater Utilities	33 40	
Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0154 EA 30" Welded Joint For Prestressed Concrete Cylinder Pipe.....	1,342.77	
33 42 11 00-0155 EA 36" Welded Joint For Prestressed Concrete Cylinder Pipe.....	1,442.23	
33 42 11 00-0156 EA 42" Welded Joint For Prestressed Concrete Cylinder Pipe.....	1,491.96	
33 42 11 00-0157 EA 48" Welded Joint For Prestressed Concrete Cylinder Pipe.....	1,690.89	
33 42 11 00-0158 EA 54" Welded Joint For Prestressed Concrete Cylinder Pipe.....	1,740.62	
33 42 11 00-0159 EA 60" Welded Joint For Prestressed Concrete Cylinder Pipe.....	1,840.09	
33 42 11 00-0160 EA 66" Welded Joint For Prestressed Concrete Cylinder Pipe.....	1,889.82	
33 42 11 00-0161 EA 72" Welded Joint For Prestressed Concrete Cylinder Pipe.....	1,939.55	
33 42 11 00-0162 EA 30" Internal Welded Joint For Prestressed Concrete Cylinder Pipe.....	2,486.61	
33 42 11 00-0163 EA 36" Internal Welded Joint For Prestressed Concrete Cylinder Pipe.....	2,486.61	
33 42 11 00-0164 EA 42" Internal Welded Joint For Prestressed Concrete Cylinder Pipe.....	2,834.73	
33 42 11 00-0165 EA 48" Internal Welded Joint For Prestressed Concrete Cylinder Pipe.....	2,834.73	
33 42 11 00-0166 EA 54" Internal Welded Joint For Prestressed Concrete Cylinder Pipe.....	3,033.66	
33 42 11 00-0167 EA 60" Internal Welded Joint For Prestressed Concrete Cylinder Pipe.....	3,033.66	
33 42 11 00-0168 EA 66" Internal Welded Joint For Prestressed Concrete Cylinder Pipe.....	3,282.32	
33 42 11 00-0169 EA 72" Internal Welded Joint For Prestressed Concrete Cylinder Pipe.....	3,282.32	
33 42 11 00-0170 Quick Test Joints <small>(33 42 11 00-0142)</small>		
33 42 11 00-0171 EA 30" Quick Test Joint.....	376.07	
33 42 11 00-0172 EA 36" Quick Test Joint.....	380.55	
33 42 11 00-0173 EA 42" Quick Test Joint.....	385.02	
33 42 11 00-0174 EA 48" Quick Test Joint.....	393.68	
33 42 11 00-0175 EA 54" Quick Test Joint.....	412.85	
33 42 11 00-0176 EA 60" Quick Test Joint.....	429.69	
33 42 11 00-0177 EA 66" Quick Test Joint.....	453.51	
33 42 11 00-0178 EA 72" Quick Test Joint.....	477.33	
33 42 11 00-0179 Harnessed Joints <small>(33 42 11 00-0142)</small>		
33 42 11 00-0180 Harness Clamp Restrained Joints <small>(33 42 11 00-0179)</small>		
33 42 11 00-0181 EA 30" Harness Clamp Restrained Joint.....	2,860.11	
33 42 11 00-0182 EA 36" Harness Clamp Restrained Joint.....	2,971.84	
33 42 11 00-0183 EA 42" Harness Clamp Restrained Joint.....	3,083.57	
33 42 11 00-0184 EA 48" Harness Clamp Restrained Joint.....	3,195.28	
33 42 11 00-0185 EA 54" Harness Clamp Restrained Joint.....	3,316.12	
33 42 11 00-0186 EA 60" Harness Clamp Restrained Joint.....	3,486.85	
33 42 11 00-0187 EA 66" Harness Clamp Restrained Joint.....	3,603.96	
33 42 11 00-0188 EA 72" Harness Clamp Restrained Joint.....	3,860.49	
33 42 11 00-0189 Snap Ring Restrained Joints <small>(33 42 11 00-0179)</small>		
33 42 11 00-0190 EA 30" Snap Ring Restrained Joint.....	500.53	
33 42 11 00-0191 EA 36" Snap Ring Restrained Joint.....	569.37	
33 42 11 00-0192 EA 42" Snap Ring Restrained Joint.....	756.17	
33 42 11 00-0193 EA 48" Snap Ring Restrained Joint.....	857.15	
33 42 11 00-0194 EA 54" Snap Ring Restrained Joint.....	967.27	
33 42 11 00-0195 EA 60" Snap Ring Restrained Joint.....	1,095.10	
33 42 11 00-0196 EA 66" Snap Ring Restrained Joint.....	1,212.21	
33 42 11 00-0197 EA 72" Snap Ring Restrained Joint.....	1,350.76	
33 42 11 00-0198 Pipe Repairs <small>(33 42 11 00-0142)</small>		
Note: For repair of damaged or defective lined or embedded cylinder concrete pipe. Includes 2 concrete adapters, MJDI sleeve, 20' pipe.		
33 42 11 00-0199 Lined Cylinder Pipe Repair <small>(33 42 11 00-0198)</small>		
33 42 11 00-0200 EA 30" Lined Cylinder Pipe Repair.....	4,692.69	
33 42 11 00-0201 EA 36" Lined Cylinder Pipe Repair.....	5,804.60	
33 42 11 00-0202 EA 42" Lined Cylinder Pipe Repair.....	7,691.85	
33 42 11 00-0203 Embedded Cylinder Pipe Repair <small>(33 42 11 00-0198)</small>		
Note: Field welded concrete enclosure assembly with concrete pipe.		
33 42 11 00-0204 EA 48" Embedded Cylinder Pipe Repair.....	11,315.90	
33 42 11 00-0205 EA 54" Embedded Cylinder Pipe Repair.....	13,121.64	
33 42 11 00-0206 EA 60" Embedded Cylinder Pipe Repair.....	14,942.38	
33 42 11 00-0207 EA 66" Embedded Cylinder Pipe Repair.....	16,879.62	
33 42 11 00-0208 EA 72" Embedded Cylinder Pipe Repair.....	20,234.80	
33 42 11 00-0209 High Density Polyethylene (HDPE) Piping <small>(33 42 11)</small>		
33 42 11 00-0210 Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Piping <small>(33 42 11 00-0209)</small>		
Note: Excludes couplings and gaskets.		
33 42 11 00-0211 Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Piping <small>(33 42 11 00-0210)</small>		

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0212	LF	4"	Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	12.68	5.73
			<i>For <100, Add</i>	2.29	
			<i>For >1,000, Deduct</i>	-0.63	
33 42 11 00-0213	LF	6"	Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	16.43	6.66
			<i>For <100, Add</i>	2.66	
			<i>For >1,000, Deduct</i>	-0.82	
33 42 11 00-0214	LF	8"	Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	20.14	7.74
			<i>For <100, Add</i>	3.09	
			<i>For >1,000, Deduct</i>	-1.01	
33 42 11 00-0215	LF	10"	Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	22.76	8.02
			<i>For <100, Add</i>	3.20	
			<i>For >1,000, Deduct</i>	-1.14	
33 42 11 00-0216	LF	12"	Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	23.92	8.30
			<i>For <100, Add</i>	3.32	
			<i>For >1,000, Deduct</i>	-1.20	
33 42 11 00-0217	LF	15"	Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	27.00	8.59
			<i>For <100, Add</i>	3.44	
			<i>For >1,000, Deduct</i>	-1.35	
33 42 11 00-0218	LF	18"	Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	32.45	8.91
			<i>For <100, Add</i>	3.56	
			<i>For >1,000, Deduct</i>	-1.62	
33 42 11 00-0219	LF	24"	Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	44.19	10.43
			<i>For <100, Add</i>	4.17	
			<i>For >1,000, Deduct</i>	-2.21	
33 42 11 00-0220	LF	30"	Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	62.53	14.04
			<i>For <100, Add</i>	5.61	
			<i>For >1,000, Deduct</i>	-3.13	
33 42 11 00-0221	LF	36"	Coupled, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	82.07	17.74
			<i>For <100, Add</i>	7.10	
			<i>For >1,000, Deduct</i>	-4.10	
33 42 11 00-0222			Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Piping <small>(33 42 11 00-0210)</small>		
33 42 11 00-0223	LF	12"	Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	23.79	8.30
			<i>For <100, Add</i>	3.32	
			<i>For >1,000, Deduct</i>	-1.19	
33 42 11 00-0224	LF	15"	Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	27.52	8.59
			<i>For <100, Add</i>	3.44	
			<i>For >1,000, Deduct</i>	-1.38	
33 42 11 00-0225	LF	18"	Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	33.22	8.91
			<i>For <100, Add</i>	3.56	
			<i>For >1,000, Deduct</i>	-1.66	
33 42 11 00-0226	LF	24"	Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	45.41	10.43
			<i>For <100, Add</i>	4.17	
			<i>For >1,000, Deduct</i>	-2.27	
33 42 11 00-0227	LF	30"	Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	65.89	14.04
			<i>For <100, Add</i>	5.61	
			<i>For >1,000, Deduct</i>	-3.29	
33 42 11 00-0228	LF	36"	Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	84.57	17.74
			<i>For <100, Add</i>	7.10	
			<i>For >1,000, Deduct</i>	-4.23	
33 42 11 00-0229	LF	42"	Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	109.57	19.35
			<i>For <100, Add</i>	7.74	
			<i>For >1,000, Deduct</i>	-5.48	
33 42 11 00-0230	LF	48"	Bell And Spigot, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	119.63	21.83
			<i>For <100, Add</i>	8.74	
			<i>For >1,000, Deduct</i>	-5.98	
33 42 11 00-0231			Single Wall, Corrugated High Density Polyethylene (HDPE) Piping <small>(33 42 11 00-0209)</small>		
			Note: Excludes couplings and gaskets.		
33 42 11 00-0232			Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Piping <small>(33 42 11 00-0231)</small>		
33 42 11 00-0233	LF	4"	Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	12.20	5.73
			<i>For <100, Add</i>	2.29	
			<i>For >1,000, Deduct</i>	-0.61	
33 42 11 00-0234	LF	6"	Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	14.99	6.66
			<i>For <100, Add</i>	2.66	
			<i>For >1,000, Deduct</i>	-0.75	
33 42 11 00-0235	LF	8"	Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	18.44	7.74
			<i>For <100, Add</i>	3.09	
			<i>For >1,000, Deduct</i>	-0.92	
33 42 11 00-0236	LF	10"	Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	21.51	8.02
			<i>For <100, Add</i>	3.20	
			<i>For >1,000, Deduct</i>	-1.08	
33 42 11 00-0237	LF	12"	Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	23.45	8.30
			<i>For <100, Add</i>	3.32	
			<i>For >1,000, Deduct</i>	-1.17	
33 42 11 00-0238	LF	15"	Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	27.15	8.59
			<i>For <100, Add</i>	3.44	
			<i>For >1,000, Deduct</i>	-1.36	



Utilities	33	CS
Stormwater Utilities	33 40	
Stormwater Conveyance	33 42	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0239	LF		18" Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	33.42 3.56 -1.67	8.91
33 42 11 00-0240	LF		24" Coupled, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	45.24 4.17 -2.26	10.43
33 42 11 00-0241			Perforated, Corrugated High Density Polyethylene (HDPE) Piping (33 42 11 00-0209) Note: Excludes couplings and gaskets.		
33 42 11 00-0242			Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Piping (33 42 11 00-0241)		
33 42 11 00-0243	LF		4" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	13.32 2.29 -0.67	5.73
33 42 11 00-0244	LF		6" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	16.45 2.66 -0.82	6.66
33 42 11 00-0245	LF		8" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	20.14 3.09 -1.01	7.74
33 42 11 00-0246	LF		10" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	22.78 3.20 -1.14	8.02
33 42 11 00-0247	LF		12" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	23.92 3.32 -1.20	8.30
33 42 11 00-0248	LF		15" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	27.02 3.44 -1.35	8.59
33 42 11 00-0249	LF		18" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	32.47 3.56 -1.62	8.91
33 42 11 00-0250	LF		24" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	44.19 4.17 -2.21	10.43
33 42 11 00-0251	LF		30" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	62.75 5.61 -3.14	14.04
33 42 11 00-0252	LF		36" Coupled, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	82.07 7.10 -4.10	17.74
33 42 11 00-0253			Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Piping (33 42 11 00-0241)		
33 42 11 00-0254	LF		12" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	23.82 3.32 -1.19	8.30
33 42 11 00-0255	LF		15" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	27.54 3.44 -1.38	8.59
33 42 11 00-0256	LF		18" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	33.24 3.56 -1.66	8.91
33 42 11 00-0257	LF		24" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	45.41 4.17 -2.27	10.43
33 42 11 00-0258	LF		30" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	65.89 5.61 -3.29	14.04
33 42 11 00-0259	LF		36" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	84.57 7.10 -4.23	17.74
33 42 11 00-0260	LF		42" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	109.57 7.74 -5.48	19.35
33 42 11 00-0261	LF		48" Bell And Spigot, Perforated, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe <i>For <100, Add</i> <i>For >1,000, Deduct</i>	119.63 8.74 -5.98	21.83
33 42 11 00-0262			Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Piping (33 42 11 00-0241)		

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0263 LF 4" Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	12.61	5.73
For <100, Add	2.29	
For >1,000, Deduct	-0.63	
33 42 11 00-0264 LF 6" Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	14.99	6.66
For <100, Add	2.66	
For >1,000, Deduct	-0.75	
33 42 11 00-0265 LF 8" Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	18.36	7.74
For <100, Add	3.09	
For >1,000, Deduct	-0.92	
33 42 11 00-0266 LF 10" Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	21.51	8.02
For <100, Add	3.20	
For >1,000, Deduct	-1.08	
33 42 11 00-0267 LF 12" Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	23.45	8.30
For <100, Add	3.32	
For >1,000, Deduct	-1.17	
33 42 11 00-0268 LF 15" Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	27.15	8.59
For <100, Add	3.44	
For >1,000, Deduct	-1.36	
33 42 11 00-0269 LF 18" Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	33.42	8.91
For <100, Add	3.56	
For >1,000, Deduct	-1.67	
33 42 11 00-0270 LF 24" Coupled, Perforated, Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe.....	45.24	10.43
For <100, Add	4.17	
For >1,000, Deduct	-2.26	
33 42 11 00-0271 Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) Pipe Fittings (33 42 11 00-0209)		
Note: Excludes couplings and gaskets.		
33 42 11 00-0272 Tees, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) (33 42 11 00-0271)		
33 42 11 00-0273 EA 4" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	51.58	20.32
33 42 11 00-0274 EA 6" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	64.45	23.71
33 42 11 00-0275 EA 8" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	102.23	28.80
33 42 11 00-0276 EA 10" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	154.34	35.57
33 42 11 00-0277 EA 12" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	240.88	42.35
33 42 11 00-0278 EA 15" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	339.11	55.34
33 42 11 00-0279 EA 18" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	486.73	74.53
33 42 11 00-0280 EA 24" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	621.72	85.08
33 42 11 00-0281 EA 30" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	1,076.78	98.25
33 42 11 00-0282 EA 36" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	1,380.48	113.49
33 42 11 00-0283 EA 42" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	2,287.92	135.51
33 42 11 00-0284 EA 48" Tee, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	2,869.94	160.92
33 42 11 00-0285 Wyes, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) (33 42 11 00-0271)		
33 42 11 00-0286 EA 4" Wye, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	73.77	20.32
33 42 11 00-0287 EA 6" Wye, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	88.80	23.71
33 42 11 00-0288 EA 8" Wye, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	117.60	28.80
33 42 11 00-0289 EA 10" Wye, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	171.28	35.57
33 42 11 00-0290 EA 12" Wye, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	295.40	42.35
33 42 11 00-0291 EA 15" Wye, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	322.39	55.34
33 42 11 00-0292 EA 18" Wye, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	454.19	74.53
33 42 11 00-0293 22-1/2 Degree Bends, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) (33 42 11 00-0271)		
33 42 11 00-0294 EA 4" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	31.59	13.55
33 42 11 00-0295 EA 6" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	38.81	15.81
33 42 11 00-0296 EA 8" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	55.86	19.19
33 42 11 00-0297 EA 10" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	70.21	23.71
33 42 11 00-0298 EA 12" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	100.63	28.23
33 42 11 00-0299 EA 15" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	157.29	36.14
33 42 11 00-0300 EA 18" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	208.81	49.69
33 42 11 00-0301 EA 24" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	388.76	56.46
33 42 11 00-0302 EA 30" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	537.59	65.49
33 42 11 00-0303 EA 36" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	629.76	75.66
33 42 11 00-0304 EA 42" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	803.54	90.34
33 42 11 00-0305 EA 48" 22-1/2 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	1,083.33	107.28
33 42 11 00-0306 45 Degree Bends, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE) (33 42 11 00-0271)		
33 42 11 00-0307 EA 4" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	34.02	13.55
33 42 11 00-0308 EA 6" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	43.86	15.81
33 42 11 00-0309 EA 8" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	58.45	19.19
33 42 11 00-0310 EA 10" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	91.21	23.71
33 42 11 00-0311 EA 12" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	100.63	28.23
33 42 11 00-0312 EA 15" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE).....	156.87	36.14



Utilities	33	CS
Stormwater Utilities	33 40	
Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0313 EA 18" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE)	242.68	49.69
33 42 11 00-0314 EA 24" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE)	414.93	56.46
33 42 11 00-0315 EA 30" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE)	538.83	65.49
33 42 11 00-0316 EA 36" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE)	686.16	75.66
33 42 11 00-0317 EA 42" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE)	1,021.23	90.34
33 42 11 00-0318 EA 48" 45 Degree Bend, Smooth Interior, Double Wall, Corrugated High Density Polyethylene (HDPE)	1,278.44	107.28
33 42 11 00-0319 Single Wall, Corrugated High Density Polyethylene (HDPE) Pipe Fittings (33 42 11 00-0209)		
Note: Excludes couplings and gaskets.		
33 42 11 00-0320 Tees, Single Wall, Corrugated High Density Polyethylene (HDPE) (33 42 11 00-0319)		
33 42 11 00-0321 EA 4" Tee, Single Wall, Corrugated High Density Polyethylene (HDPE)	36.64	20.32
33 42 11 00-0322 EA 6" Tee, Single Wall, Corrugated High Density Polyethylene (HDPE)	43.48	23.71
33 42 11 00-0323 EA 8" Tee, Single Wall, Corrugated High Density Polyethylene (HDPE)	68.56	28.80
33 42 11 00-0324 EA 10" Tee, Single Wall, Corrugated High Density Polyethylene (HDPE)	87.73	35.57
33 42 11 00-0325 EA 12" Tee, Single Wall, Corrugated High Density Polyethylene (HDPE)	128.09	42.35
33 42 11 00-0326 EA 15" Tee, Single Wall, Corrugated High Density Polyethylene (HDPE)	270.59	55.34
33 42 11 00-0327 EA 18" Tee, Single Wall, Corrugated High Density Polyethylene (HDPE)	325.30	74.53
33 42 11 00-0328 EA 24" Tee, Single Wall, Corrugated High Density Polyethylene (HDPE)	603.85	84.70
33 42 11 00-0329 Wyes, Single Wall, Corrugated High Density Polyethylene (HDPE) (33 42 11 00-0319)		
33 42 11 00-0330 EA 4" Wye, Single Wall, Corrugated High Density Polyethylene (HDPE)	37.56	20.32
33 42 11 00-0331 EA 6" Wye, Single Wall, Corrugated High Density Polyethylene (HDPE)	46.48	23.71
33 42 11 00-0332 EA 8" Wye, Single Wall, Corrugated High Density Polyethylene (HDPE)	99.98	28.80
33 42 11 00-0333 45 Degree Bends, Single Wall, Corrugated High Density Polyethylene (HDPE) (33 42 11 00-0319)		
33 42 11 00-0334 EA 4" 45 Degree Bend, Single Wall, Corrugated High Density Polyethylene (HDPE)	24.73	13.55
33 42 11 00-0335 90 Degree Bends, Single Wall, Corrugated High Density Polyethylene (HDPE) (33 42 11 00-0319)		
33 42 11 00-0336 EA 4" 90 Degree Bend, Single Wall, Corrugated High Density Polyethylene (HDPE)	25.69	13.55
33 42 11 00-0337 EA 6" 90 Degree Bend, Single Wall, Corrugated High Density Polyethylene (HDPE)	32.86	15.81
33 42 11 00-0338 EA 8" 90 Degree Bend, Single Wall, Corrugated High Density Polyethylene (HDPE)	47.96	19.19
33 42 11 00-0339 EA 10" 90 Degree Bend, Single Wall, Corrugated High Density Polyethylene (HDPE)	62.87	23.71
33 42 11 00-0340 Couplings And End Caps, Corrugated High Density Polyethylene (HDPE) Pipe (33 42 11 00-0209)		
Note: For single and double wall high density polyethylene (HDPE) piping.		
33 42 11 00-0341 Couplings, Corrugated High Density Polyethylene (HDPE) Pipe (33 42 11 00-0340)		
33 42 11 00-0342 EA 4" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	1.45	
33 42 11 00-0343 EA 6" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	2.60	
33 42 11 00-0344 EA 8" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	4.00	
33 42 11 00-0345 EA 10" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	4.92	
33 42 11 00-0346 EA 12" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	5.29	
33 42 11 00-0347 EA 15" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	7.53	
33 42 11 00-0348 EA 18" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	11.14	
33 42 11 00-0349 EA 24" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	17.74	
33 42 11 00-0350 EA 30" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	27.23	
33 42 11 00-0351 EA 36" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	35.63	
33 42 11 00-0352 EA 42" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	56.01	
33 42 11 00-0353 EA 48" Coupling, Corrugated High Density Polyethylene (HDPE) Pipe	75.76	
33 42 11 00-0354 Self Adhering Gaskets, Corrugated High Density Polyethylene (HDPE) Pipe (33 42 11 00-0340)		
33 42 11 00-0355 EA 4" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe	76.71	
33 42 11 00-0356 EA 6" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe	80.32	
33 42 11 00-0357 EA 8" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe	84.10	
33 42 11 00-0358 EA 10" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe	88.05	
33 42 11 00-0359 EA 12" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe	104.43	
33 42 11 00-0360 EA 15" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe	107.82	
33 42 11 00-0361 EA 18" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe	112.46	
33 42 11 00-0362 EA 24" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe	128.10	
33 42 11 00-0363 EA 30" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe	205.35	
33 42 11 00-0364 EA 36" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe	224.92	
33 42 11 00-0365 EA 42" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe	245.07	
33 42 11 00-0366 EA 48" Self Adhering Gasket, Corrugated High Density Polyethylene (HDPE) Pipe	297.64	
33 42 11 00-0367 End Caps, Corrugated High Density Polyethylene (HDPE) Pipe (33 42 11 00-0340)		
33 42 11 00-0368 EA 6" End Cap For Corrugated High Density Polyethylene (HDPE) Pipe	23.75	
33 42 11 00-0369 EA 8" End Cap For Corrugated High Density Polyethylene (HDPE) Pipe	27.40	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0370	EA	10" End Cap For Corrugated High Density Polyethylene (HDPE) Pipe	41.56	
33 42 11 00-0371	EA	12" End Cap For Corrugated High Density Polyethylene (HDPE) Pipe	67.39	
33 42 11 00-0372	EA	15" End Cap For Corrugated High Density Polyethylene (HDPE) Pipe	77.88	
33 42 11 00-0373	EA	18" End Cap For Corrugated High Density Polyethylene (HDPE) Pipe	103.67	
33 42 11 00-0374	EA	24" End Cap For Corrugated High Density Polyethylene (HDPE) Pipe	108.12	
33 42 11 00-0375		Vitrified Clay Piping (33 42 11)		
33 42 11 00-0376		Extra Strength Vitrified Clay Piping (33 42 11 00-0375)		
33 42 11 00-0377		Plain Joint, Extra Strength, Vitrified Clay Piping (33 42 11 00-0376)		
		Note: ASTM C700.		
33 42 11 00-0378	LF	4" Plain Joint, Extra Strength, Vitrified Clay Pipe	19.04	
		For 3' Lengths, Add	1.95	
		For 2' Lengths, Add	2.60	
		For Standard Strength, Deduct	-0.65	
		For >1,000, Deduct	-0.95	
33 42 11 00-0379	LF	6" Plain Joint, Extra Strength, Vitrified Clay Pipe	31.46	
		For 3' Lengths, Add	3.02	
		For 2' Lengths, Add	4.03	
		For Standard Strength, Deduct	-1.01	
		For >1,000, Deduct	-1.57	
33 42 11 00-0380	LF	8" Plain Joint, Extra Strength, Vitrified Clay Pipe	38.15	
		For 3' Lengths, Add	4.32	
		For 2' Lengths, Add	5.76	
		For Standard Strength, Deduct	-1.44	
		For >1,000, Deduct	-1.91	
33 42 11 00-0381	LF	10" Plain Joint, Extra Strength, Vitrified Clay Pipe	46.92	
		For 3' Lengths, Add	6.62	
		For 2' Lengths, Add	8.82	
		For Standard Strength, Deduct	-2.21	
		For >1,000, Deduct	-2.35	
33 42 11 00-0382	LF	12" Plain Joint, Extra Strength, Vitrified Clay Pipe	58.26	
		For 3' Lengths, Add	9.34	
		For 2' Lengths, Add	12.46	
		For Standard Strength, Deduct	-3.11	
		For >1,000, Deduct	-2.91	
33 42 11 00-0383	LF	15" Plain Joint, Extra Strength, Vitrified Clay Pipe	88.58	
		For 3' Lengths, Add	17.52	
		For 2' Lengths, Add	23.36	
		For Standard Strength, Deduct	-5.84	
		For >1,000, Deduct	-4.43	
33 42 11 00-0384	LF	18" Plain Joint, Extra Strength, Vitrified Clay Pipe	121.33	
		For 3' Lengths, Add	25.11	
		For 2' Lengths, Add	33.48	
		For Standard Strength, Deduct	-8.37	
		For >1,000, Deduct	-6.07	
33 42 11 00-0385	LF	21" Plain Joint, Extra Strength, Vitrified Clay Pipe	181.55	
		For 3' Lengths, Add	40.23	
		For 2' Lengths, Add	53.64	
		For Standard Strength, Deduct	-13.41	
		For >1,000, Deduct	-9.08	
33 42 11 00-0386	LF	24" Plain Joint, Extra Strength, Vitrified Clay Pipe	232.81	
		For 3' Lengths, Add	52.56	
		For 2' Lengths, Add	70.08	
		For Standard Strength, Deduct	-17.52	
		For >1,000, Deduct	-11.64	
33 42 11 00-0387	LF	30" Plain Joint, Extra Strength, Vitrified Clay Pipe	288.42	
		For 3' Lengths, Add	65.53	
		For 2' Lengths, Add	87.38	
		For Standard Strength, Deduct	-21.84	
		For >1,000, Deduct	-14.42	
33 42 11 00-0388	LF	36" Plain Joint, Extra Strength, Vitrified Clay Pipe	348.83	
		For 3' Lengths, Add	79.16	
		For 2' Lengths, Add	105.54	
		For Standard Strength, Deduct	-26.39	
		For >1,000, Deduct	-17.44	
33 42 11 00-0389		Compression Joint, Extra Strength, Vitrified Clay Piping (33 42 11 00-0376)		
		Note: ASTM C425.		
33 42 11 00-0390	LF	4" Compression Joint, Extra Strength, Vitrified Clay Pipe	26.66	
		For 3' Lengths, Add	2.30	
		For 2' Lengths, Add	3.06	
		For Standard Strength, Deduct	-0.77	
		For >1,000, Deduct	-1.33	
33 42 11 00-0391	LF	6" Compression Joint, Extra Strength, Vitrified Clay Pipe	33.88	
		For 3' Lengths, Add	3.75	
		For 2' Lengths, Add	5.00	
		For Standard Strength, Deduct	-1.25	
		For >1,000, Deduct	-1.69	



Utilities	33	33
Stormwater Utilities	33 40	
Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0392 LF 8" Compression Joint, Extra Strength, Vitrified Clay Pipe	41.40	
For 3' Lengths, Add	5.30	
For 2' Lengths, Add	7.06	
For Standard Strength, Deduct	-1.77	
For >1,000, Deduct	-2.07	
33 42 11 00-0393 LF 10" Compression Joint, Extra Strength, Vitrified Clay Pipe	53.84	
For 3' Lengths, Add	8.69	
For 2' Lengths, Add	11.59	
For Standard Strength, Deduct	-2.90	
For >1,000, Deduct	-2.69	
33 42 11 00-0394 LF 12" Compression Joint, Extra Strength, Vitrified Clay Pipe	65.18	
For 3' Lengths, Add	11.42	
For 2' Lengths, Add	15.22	
For Standard Strength, Deduct	-3.81	
For >1,000, Deduct	-3.26	
33 42 11 00-0395 LF 15" Compression Joint, Extra Strength, Vitrified Clay Pipe	99.61	
For 3' Lengths, Add	20.83	
For 2' Lengths, Add	27.77	
For Standard Strength, Deduct	-6.94	
For >1,000, Deduct	-4.98	
33 42 11 00-0396 LF 18" Compression Joint, Extra Strength, Vitrified Clay Pipe	139.28	
For 3' Lengths, Add	30.50	
For 2' Lengths, Add	40.66	
For Standard Strength, Deduct	-10.17	
For >1,000, Deduct	-6.96	
33 42 11 00-0397 LF 21" Compression Joint, Extra Strength, Vitrified Clay Pipe	202.10	
For 3' Lengths, Add	46.39	
For 2' Lengths, Add	61.86	
For Standard Strength, Deduct	-15.46	
For >1,000, Deduct	-10.11	
33 42 11 00-0398 LF 24" Compression Joint, Extra Strength, Vitrified Clay Pipe	265.25	
For 3' Lengths, Add	62.29	
For 2' Lengths, Add	83.05	
For Standard Strength, Deduct	-20.76	
For >1,000, Deduct	-13.26	
33 42 11 00-0399 LF 30" Compression Joint, Extra Strength, Vitrified Clay Pipe	431.16	
For 3' Lengths, Add	108.35	
For 2' Lengths, Add	144.47	
For Standard Strength, Deduct	-36.12	
For >1,000, Deduct	-21.56	
33 42 11 00-0400 LF 36" Compression Joint, Extra Strength, Vitrified Clay Pipe	617.01	
For 3' Lengths, Add	159.61	
For 2' Lengths, Add	212.82	
For Standard Strength, Deduct	-53.20	
For >1,000, Deduct	-30.85	
33 42 11 00-0401 Extra Strength, Vitrified Clay Pipe Fittings (33 42 11 00-0375)		
33 42 11 00-0402 1/8 Bends, Extra Strength, Vitrified Clay (33 42 11 00-0401)		
33 42 11 00-0403 Plain End 1/8 Bend, Extra Strength, Vitrified Clay (33 42 11 00-0402)		
33 42 11 00-0404 EA 4" Plain End 1/8 Bend, Extra Strength, Vitrified Clay	83.94	
33 42 11 00-0405 EA 6" Plain End 1/8 Bend, Extra Strength, Vitrified Clay	114.94	
33 42 11 00-0406 EA 8" Plain End 1/8 Bend, Extra Strength, Vitrified Clay	167.67	
33 42 11 00-0407 EA 10" Plain End 1/8 Bend, Extra Strength, Vitrified Clay	235.11	
33 42 11 00-0408 EA 12" Plain End 1/8 Bend, Extra Strength, Vitrified Clay	313.84	
33 42 11 00-0409 EA 15" Plain End 1/8 Bend, Extra Strength, Vitrified Clay	773.14	
33 42 11 00-0410 EA 18" Plain End 1/8 Bend, Extra Strength, Vitrified Clay	1,093.83	
33 42 11 00-0411 EA 21" Plain End 1/8 Bend, Extra Strength, Vitrified Clay	1,714.36	
33 42 11 00-0412 EA 24" Plain End 1/8 Bend, Extra Strength, Vitrified Clay	1,976.67	
33 42 11 00-0413 EA 30" Plain End 1/8 Bend, Extra Strength, Vitrified Clay	2,292.00	
33 42 11 00-0414 EA 36" Plain End 1/8 Bend, Extra Strength, Vitrified Clay	3,457.53	
33 42 11 00-0415 Compression Joint 1/8 Bends, Extra Strength, Vitrified Clay (33 42 11 00-0402)		
33 42 11 00-0416 EA 4" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay	94.13	
33 42 11 00-0417 EA 6" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay	136.68	
33 42 11 00-0418 EA 8" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay	188.07	
33 42 11 00-0419 EA 10" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay	257.00	
33 42 11 00-0420 EA 12" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay	329.01	
33 42 11 00-0421 EA 15" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay	865.71	
33 42 11 00-0422 EA 18" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay	1,264.55	
33 42 11 00-0423 EA 21" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay	1,292.86	
33 42 11 00-0424 EA 24" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay	2,534.54	
33 42 11 00-0425 EA 30" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay	2,816.42	
33 42 11 00-0426 EA 36" Compression Joint 1/8 Bend, Extra Strength, Vitrified Clay	4,204.46	
33 42 11 00-0427 1/4 Bends, Extra Strength, Vitrified Clay (33 42 11 00-0401)		
33 42 11 00-0428 Plain End 1/4 Bends, Extra Strength, Vitrified Clay (33 42 11 00-0427)		
33 42 11 00-0429 EA 4" Plain End 1/4 Bend, Extra Strength, Vitrified Clay	96.48	
33 42 11 00-0430 EA 6" Plain End 1/4 Bend, Extra Strength, Vitrified Clay	130.05	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0431 EA 8" Plain End 1/4 Bend, Extra Strength, Vitrified Clay	185.34	
33 42 11 00-0432 EA 10" Plain End 1/4 Bend, Extra Strength, Vitrified Clay	254.37	
33 42 11 00-0433 EA 12" Plain End 1/4 Bend, Extra Strength, Vitrified Clay	335.53	
33 42 11 00-0434 EA 15" Plain End 1/4 Bend, Extra Strength, Vitrified Clay	797.29	
33 42 11 00-0435 EA 18" Plain End 1/4 Bend, Extra Strength, Vitrified Clay	1,123.94	
33 42 11 00-0436 EA 21" Plain End 1/4 Bend, Extra Strength, Vitrified Clay	1,752.32	
33 42 11 00-0437 EA 24" Plain End 1/4 Bend, Extra Strength, Vitrified Clay	2,022.77	
33 42 11 00-0438 EA 30" Plain End 1/4 Bend, Extra Strength, Vitrified Clay	2,349.49	
33 42 11 00-0439 EA 36" Plain End 1/4 Bend, Extra Strength, Vitrified Clay	3,521.44	
33 42 11 00-0440 Compression Joint 1/4 Bends, Extra Strength, Vitrified Clay (33 42 11 00-0427)		
33 42 11 00-0441 EA 4" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay	109.18	
33 42 11 00-0442 EA 6" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay	154.82	
33 42 11 00-0443 EA 8" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay	209.28	
33 42 11 00-0444 EA 10" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay	280.10	
33 42 11 00-0445 EA 12" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay	355.05	
33 42 11 00-0446 EA 15" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay	894.67	
33 42 11 00-0447 EA 18" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay	1,300.67	
33 42 11 00-0448 EA 21" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay	2,550.80	
33 42 11 00-0449 EA 24" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay	2,589.86	
33 42 11 00-0450 EA 30" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay	2,885.41	
33 42 11 00-0451 EA 36" Compression Joint 1/4 Bend, Extra Strength, Vitrified Clay	4,281.16	
33 42 11 00-0452 Wyes Or Tees, Extra Strength, Vitrified Clay (33 42 11 00-0401)		
33 42 11 00-0453 Plain End Wyes Or Tees, Extra Strength, Vitrified Clay (33 42 11 00-0452)		
33 42 11 00-0454 EA 4" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay	103.87	
33 42 11 00-0455 EA 6" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay	137.39	
33 42 11 00-0456 EA 8" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay	190.73	
33 42 11 00-0457 EA 10" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay	258.36	
33 42 11 00-0458 EA 12" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay	330.28	
33 42 11 00-0459 EA 15" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay	798.88	
33 42 11 00-0460 EA 18" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay	1,123.03	
33 42 11 00-0461 EA 21" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay	1,630.24	
33 42 11 00-0462 EA 24" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay	2,277.92	
33 42 11 00-0463 EA 30" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay	2,398.85	
33 42 11 00-0464 EA 36" Plain End Wyes Or Tees, Extra Strength, Vitrified Clay	3,475.97	
33 42 11 00-0465 Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay (33 42 11 00-0452)		
33 42 11 00-0466 EA 4" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay	127.29	
33 42 11 00-0467 EA 6" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay	178.08	
33 42 11 00-0468 EA 8" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay	238.26	
33 42 11 00-0469 EA 10" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay	314.94	
33 42 11 00-0470 EA 12" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay	396.76	
33 42 11 00-0471 EA 15" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay	972.32	
33 42 11 00-0472 EA 18" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay	1,409.06	
33 42 11 00-0473 EA 21" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay	2,103.06	
33 42 11 00-0474 EA 24" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay	2,793.22	
33 42 11 00-0475 EA 30" Compression Joint Wyes Or Tees, Extra Strength, Vitrified Clay	3,224.12	
33 42 11 00-0476 EA 36" Compression Joint, Extra Strength, Vitrified Clay Wye Or Tee	4,606.24	
33 42 11 00-0477 Corrugated Metal Piping (33 42 11)		
33 42 11 00-0478 Galvanized Corrugated Steel Piping (33 42 11 00-0477)		
33 42 11 00-0479 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0478)		
33 42 11 00-0480 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0479)		
33 42 11 00-0481 LF 12" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	29.75	8.89
For Bituminous Coated Pipe, Add	2.73	
For Bituminous Coated And 25% Paved, Add	5.58	
For Smooth-Flo, Add	9.97	
33 42 11 00-0482 LF 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	33.33	9.31
For Bituminous Coated Pipe, Add	3.44	
For Bituminous Coated And 25% Paved, Add	7.03	
For Smooth-Flo, Add	12.55	
33 42 11 00-0483 LF 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	37.03	10.16
For Bituminous Coated Pipe, Add	4.16	
For Bituminous Coated And 25% Paved, Add	8.51	
For Smooth-Flo, Add	15.20	
33 42 11 00-0484 LF 21" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	41.97	11.01
For Bituminous Coated Pipe, Add	4.98	
For Bituminous Coated And 25% Paved, Add	10.19	
For Smooth-Flo, Add	18.19	
33 42 11 00-0485 LF 24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe	46.38	11.86
For Bituminous Coated Pipe, Add	5.60	
For Bituminous Coated And 25% Paved, Add	11.46	
For Smooth-Flo, Add	20.46	



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Stormwater Utilities	33 40	
Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0486 LF 30" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	61.31	15.25
For Bituminous Coated Pipe, Add	7.27	
For Bituminous Coated And 25% Paved, Add	14.87	
For Smooth-Flo, Add	26.56	
33 42 11 00-0487 LF 36" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	79.62	19.66
For Bituminous Coated Pipe, Add	9.17	
For Bituminous Coated And 25% Paved, Add	18.76	
For Smooth-Flo, Add	33.49	
33 42 11 00-0488 LF 42" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	90.36	23.25
For Bituminous Coated Pipe, Add	10.85	
For Bituminous Coated And 25% Paved, Add	22.20	
For Smooth-Flo, Add	39.64	
33 42 11 00-0489 LF 48" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	101.57	26.82
For Bituminous Coated Pipe, Add	12.15	
For Bituminous Coated And 25% Paved, Add	24.86	
For Smooth-Flo, Add	44.39	
33 42 11 00-0490 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Piping⁽³³⁾		
<small>42 11 00-0479)</small>		
33 42 11 00-0491 LF 12" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	32.19	8.89
For Bituminous Coated Pipe, Add	2.77	
For Bituminous Coated And 25% Paved, Add	6.42	
For Smooth-Flo, Add	12.98	
33 42 11 00-0492 LF 15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	36.33	9.31
For Bituminous Coated Pipe, Add	3.47	
For Bituminous Coated And 25% Paved, Add	8.05	
For Smooth-Flo, Add	16.27	
33 42 11 00-0493 LF 18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	40.66	10.16
For Bituminous Coated Pipe, Add	4.21	
For Bituminous Coated And 25% Paved, Add	9.75	
For Smooth-Flo, Add	19.71	
33 42 11 00-0494 LF 21" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	46.16	11.01
For Bituminous Coated Pipe, Add	5.00	
For Bituminous Coated And 25% Paved, Add	11.59	
For Smooth-Flo, Add	23.43	
33 42 11 00-0495 LF 24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	51.26	11.86
For Bituminous Coated Pipe, Add	5.66	
For Bituminous Coated And 25% Paved, Add	13.12	
For Smooth-Flo, Add	26.52	
33 42 11 00-0496 LF 30" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	67.26	15.25
For Bituminous Coated Pipe, Add	7.27	
For Bituminous Coated And 25% Paved, Add	16.84	
For Smooth-Flo, Add	34.05	
33 42 11 00-0497 LF 36" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	86.85	19.66
For Bituminous Coated Pipe, Add	9.11	
For Bituminous Coated And 25% Paved, Add	21.12	
For Smooth-Flo, Add	42.68	
33 42 11 00-0498 LF 42" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	98.63	23.25
For Bituminous Coated Pipe, Add	10.73	
For Bituminous Coated And 25% Paved, Add	24.86	
For Smooth-Flo, Add	50.24	
33 42 11 00-0499 LF 48" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	111.04	26.82
For Bituminous Coated Pipe, Add	12.06	
For Bituminous Coated And 25% Paved, Add	27.93	
For Smooth-Flo, Add	56.47	
33 42 11 00-0500 LF 54" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	132.31	30.40
For Bituminous Coated Pipe, Add	14.83	
For Bituminous Coated And 25% Paved, Add	34.35	
For Smooth-Flo, Add	69.44	
33 42 11 00-0501 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Piping⁽³³⁾		
<small>42 11 00-0479)</small>		
33 42 11 00-0502 LF 18" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	48.17	10.16
For Bituminous Coated Pipe, Add	4.82	
For Bituminous Coated And 25% Paved, Add	8.70	
For Smooth-Flo, Add	16.72	
33 42 11 00-0503 LF 21" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	54.89	11.01
For Bituminous Coated Pipe, Add	5.70	
For Bituminous Coated And 25% Paved, Add	10.28	
For Smooth-Flo, Add	19.77	
33 42 11 00-0504 LF 24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	61.21	11.01
For Bituminous Coated Pipe, Add	6.46	
For Bituminous Coated And 25% Paved, Add	11.66	
For Smooth-Flo, Add	22.41	
33 42 11 00-0505 LF 30" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	79.56	15.25
For Bituminous Coated Pipe, Add	8.21	
For Bituminous Coated And 25% Paved, Add	14.83	
For Smooth-Flo, Add	28.49	
33 42 11 00-0506 LF 36" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe.....	101.44	19.66
For Bituminous Coated Pipe, Add	10.15	
For Bituminous Coated And 25% Paved, Add	18.33	
For Smooth-Flo, Add	35.23	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0507	LF	42"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	115.49 11.89 21.48 41.28	23.25
33 42 11 00-0508	LF	48"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	130.36 13.43 24.26 46.62	26.82
33 42 11 00-0509	LF	54"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	153.65 16.11 29.09 55.90	30.40
33 42 11 00-0510	LF	60"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	167.95 17.64 31.85 61.22	32.18
33 42 11 00-0511	LF	66"	12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	203.35 21.47 38.78 74.53	39.34
33 42 11 00-0512			10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Piping ⁽³³⁾ <small>^{42 11 00-0479)}</small>		
33 42 11 00-0513	LF	36"	10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	115.10 12.91 21.57 30.78	19.66
33 42 11 00-0514	LF	42"	10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	131.48 15.13 25.27 36.06	23.25
33 42 11 00-0515	LF	48"	10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	148.50 17.10 28.56 40.75	26.82
33 42 11 00-0516	LF	54"	10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	173.97 20.25 33.83 48.27	30.40
33 42 11 00-0517	LF	60"	10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	190.56 22.24 37.15 53.01	32.18
33 42 11 00-0518	LF	66"	10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	228.20 26.61 44.44 63.42	39.34
33 42 11 00-0519	LF	72"	10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	276.10 28.57 47.72 68.09	57.22
33 42 11 00-0520			3" x 1" Corrugation, Galvanized Corrugated Steel Piping ^(33 42 11 00-0478)		
33 42 11 00-0521			16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Piping ^(33 42 11 00-0520)		
33 42 11 00-0522	LF	36"	16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	92.15 10.08 22.89 45.58	19.66
33 42 11 00-0523	LF	42"	16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	104.72 11.84 26.88 53.52	23.25
33 42 11 00-0524	LF	48"	16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	117.75 13.28 30.15 60.03	26.82
33 42 11 00-0525	LF	54"	16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	140.02 16.22 36.82 73.32	30.40
33 42 11 00-0526	LF	60"	16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	152.56 17.67 40.12 79.89	32.18
33 42 11 00-0527	LF	66"	16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	190.54 22.70 51.53 102.61	39.34
33 42 11 00-0528	LF	72"	16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	234.78 24.20 54.93 109.37	57.22



Utilities	33	CS
Stormwater Utilities	33 40	
Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0529 LF 78" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	253.67 25.70 58.34 116.16	62.59
33 42 11 00-0530 LF 84" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	270.12 27.20 61.75 122.95	67.05
33 42 11 00-0531 LF 90" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	286.60 28.71 65.17 129.77	71.52
33 42 11 00-0532 LF 96" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	303.67 30.21 68.57 136.53	76.00
33 42 11 00-0533 LF 102" 16 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	323.30 31.72 72.00 143.37	80.47
33 42 11 00-0534 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0520)		
33 42 11 00-0535 LF 54" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	152.80 18.78 36.80 74.36	30.40
33 42 11 00-0536 LF 60" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	166.70 20.50 40.18 81.19	32.18
33 42 11 00-0537 LF 66" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	206.09 25.81 50.59 102.22	39.34
33 42 11 00-0538 LF 72" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	251.73 27.59 54.07 109.25	57.22
33 42 11 00-0539 LF 78" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	271.98 29.36 57.55 116.27	62.59
33 42 11 00-0540 LF 84" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	289.87 31.15 61.06 123.36	67.05
33 42 11 00-0541 LF 90" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	307.68 32.93 64.53 130.39	71.52
33 42 11 00-0542 LF 96" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	326.14 34.70 68.01 137.41	76.00
33 42 11 00-0543 LF 102" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	347.13 36.49 71.51 144.48	80.47
33 42 11 00-0544 LF 108" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	370.17 38.27 75.01 151.56	89.41
33 42 11 00-0545 LF 114" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	392.69 40.02 78.45 158.50	98.34
33 42 11 00-0546 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0520)		
33 42 11 00-0547 LF 60" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	198.07 26.78 51.01 83.14	32.18
33 42 11 00-0548 LF 66" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	240.84 32.76 62.41 101.73	39.34
33 42 11 00-0549 LF 72" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	289.50 35.14 66.95 109.12	57.22

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0550	LF		78" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	312.82	62.59
			<i>For Bituminous Coated Pipe, Add</i>	37.53	
			<i>For Bituminous Coated And 25% Paved, Add</i>	71.49	
			<i>For Smooth-Flo, Add</i>	116.53	
33 42 11 00-0551	LF		84" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	333.74	67.05
			<i>For Bituminous Coated Pipe, Add</i>	39.93	
			<i>For Bituminous Coated And 25% Paved, Add</i>	76.06	
			<i>For Smooth-Flo, Add</i>	123.97	
33 42 11 00-0552	LF		90" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	354.62	71.52
			<i>For Bituminous Coated Pipe, Add</i>	42.31	
			<i>For Bituminous Coated And 25% Paved, Add</i>	80.61	
			<i>For Smooth-Flo, Add</i>	131.38	
33 42 11 00-0553	LF		96" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	376.17	76.00
			<i>For Bituminous Coated Pipe, Add</i>	44.71	
			<i>For Bituminous Coated And 25% Paved, Add</i>	85.16	
			<i>For Smooth-Flo, Add</i>	138.81	
33 42 11 00-0554	LF		102" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	400.21	80.47
			<i>For Bituminous Coated Pipe, Add</i>	47.10	
			<i>For Bituminous Coated And 25% Paved, Add</i>	89.73	
			<i>For Smooth-Flo, Add</i>	146.25	
33 42 11 00-0555	LF		108" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	426.26	89.41
			<i>For Bituminous Coated Pipe, Add</i>	49.49	
			<i>For Bituminous Coated And 25% Paved, Add</i>	94.28	
			<i>For Smooth-Flo, Add</i>	153.67	
33 42 11 00-0556	LF		114" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	451.86	98.34
			<i>For Bituminous Coated Pipe, Add</i>	51.86	
			<i>For Bituminous Coated And 25% Paved, Add</i>	98.79	
			<i>For Smooth-Flo, Add</i>	161.02	
33 42 11 00-0557	LF		120" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	476.48	107.29
			<i>For Bituminous Coated Pipe, Add</i>	54.26	
			<i>For Bituminous Coated And 25% Paved, Add</i>	103.36	
			<i>For Smooth-Flo, Add</i>	168.46	
33 42 11 00-0558			10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-		
			0520)		
33 42 11 00-0559	LF		72" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	324.73	57.22
			<i>For Bituminous Coated Pipe, Add</i>	42.19	
			<i>For Bituminous Coated And 25% Paved, Add</i>	80.16	
			<i>For Smooth-Flo, Add</i>	107.16	
33 42 11 00-0560	LF		78" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	350.93	62.59
			<i>For Bituminous Coated Pipe, Add</i>	45.15	
			<i>For Bituminous Coated And 25% Paved, Add</i>	85.79	
			<i>For Smooth-Flo, Add</i>	114.69	
33 42 11 00-0561	LF		84" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	374.75	67.05
			<i>For Bituminous Coated Pipe, Add</i>	48.13	
			<i>For Bituminous Coated And 25% Paved, Add</i>	91.44	
			<i>For Smooth-Flo, Add</i>	122.25	
33 42 11 00-0562	LF		90" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	398.52	71.52
			<i>For Bituminous Coated Pipe, Add</i>	51.09	
			<i>For Bituminous Coated And 25% Paved, Add</i>	97.08	
			<i>For Smooth-Flo, Add</i>	129.78	
33 42 11 00-0563	LF		96" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	422.96	76.00
			<i>For Bituminous Coated Pipe, Add</i>	54.06	
			<i>For Bituminous Coated And 25% Paved, Add</i>	102.72	
			<i>For Smooth-Flo, Add</i>	137.32	
33 42 11 00-0564	LF		102" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	449.90	80.47
			<i>For Bituminous Coated Pipe, Add</i>	57.04	
			<i>For Bituminous Coated And 25% Paved, Add</i>	108.38	
			<i>For Smooth-Flo, Add</i>	144.88	
33 42 11 00-0565	LF		108" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	478.83	89.41
			<i>For Bituminous Coated Pipe, Add</i>	60.00	
			<i>For Bituminous Coated And 25% Paved, Add</i>	114.01	
			<i>For Smooth-Flo, Add</i>	152.41	
33 42 11 00-0566	LF		114" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	507.30	98.34
			<i>For Bituminous Coated Pipe, Add</i>	62.95	
			<i>For Bituminous Coated And 25% Paved, Add</i>	119.60	
			<i>For Smooth-Flo, Add</i>	159.88	
33 42 11 00-0567	LF		120" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	534.83	107.29
			<i>For Bituminous Coated Pipe, Add</i>	65.93	
			<i>For Bituminous Coated And 25% Paved, Add</i>	125.26	
			<i>For Smooth-Flo, Add</i>	167.45	
33 42 11 00-0568	LF		126" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	563.99	116.23
			<i>For Bituminous Coated Pipe, Add</i>	68.88	
			<i>For Bituminous Coated And 25% Paved, Add</i>	130.87	
			<i>For Smooth-Flo, Add</i>	174.96	
33 42 11 00-0569	LF		132" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	595.44	125.17
			<i>For Bituminous Coated Pipe, Add</i>	71.86	
			<i>For Bituminous Coated And 25% Paved, Add</i>	136.53	
			<i>For Smooth-Flo, Add</i>	182.51	
33 42 11 00-0570	LF		138" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe	629.64	134.11
			<i>For Bituminous Coated Pipe, Add</i>	74.84	
			<i>For Bituminous Coated And 25% Paved, Add</i>	142.19	
			<i>For Smooth-Flo, Add</i>	190.09	



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	Stormwater Utilities	33 40
	Stormwater Conveyance	33 42

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0571			125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0478)		
33 42 11 00-0572			16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0571)		
33 42 11 00-0573	LF		48" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	118.12 16.69 38.06 60.43	26.82
33 42 11 00-0574	LF		54" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	140.73 20.46 46.64 74.05	30.40
33 42 11 00-0575	LF		60" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	153.18 22.25 50.72 80.54	32.18
33 42 11 00-0576	LF		66" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	189.06 28.01 63.86 101.39	39.34
33 42 11 00-0577	LF		72" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	233.13 29.84 68.02 108.00	57.22
33 42 11 00-0578	LF		78" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	251.80 31.66 72.18 114.60	62.59
33 42 11 00-0579	LF		84" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	267.99 33.47 76.31 121.16	67.05
33 42 11 00-0580	LF		90" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	284.16 35.28 80.43 127.70	71.52
33 42 11 00-0581	LF		96" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	301.09 37.11 84.62 134.35	76.00
33 42 11 00-0582	LF		102" 16 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	320.66 38.99 88.90 141.14	80.47
33 42 11 00-0583			14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0571)		
33 42 11 00-0584	LF		54" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	156.71 19.56 45.97 83.23	30.40
33 42 11 00-0585	LF		60" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	170.95 21.35 50.18 90.85	32.18
33 42 11 00-0586	LF		66" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	208.45 26.28 61.77 111.84	39.34
33 42 11 00-0587	LF		72" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	254.08 28.06 65.94 119.39	57.22
33 42 11 00-0588	LF		78" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	274.64 29.89 70.25 127.20	62.59
33 42 11 00-0589	LF		84" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	292.62 31.70 74.50 134.89	67.05
33 42 11 00-0590	LF		90" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	309.67 33.32 78.31 141.79	71.52
33 42 11 00-0591	LF		96" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	329.18 35.31 82.97 150.24	76.00
33 42 11 00-0592	LF		102" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe For Bituminous Coated Pipe, Add For Bituminous Coated And 25% Paved, Add For Smooth-Flo, Add	350.25 37.11 87.21 157.90	80.47

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0593 LF 108" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	373.29	89.41
For Bituminous Coated Pipe, Add	38.90	
For Bituminous Coated And 25% Paved, Add	91.41	
For Smooth-Flo, Add	165.50	
33 42 11 00-0594 LF 114" 14 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	396.20	98.34
For Bituminous Coated Pipe, Add	40.73	
For Bituminous Coated And 25% Paved, Add	95.71	
For Smooth-Flo, Add	173.29	
33 42 11 00-0595 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0571)		
33 42 11 00-0596 LF 60" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	204.22	32.18
For Bituminous Coated Pipe, Add	28.01	
For Bituminous Coated And 25% Paved, Add	53.21	
For Smooth-Flo, Add	96.06	
33 42 11 00-0597 LF 66" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	245.09	39.34
For Bituminous Coated Pipe, Add	33.61	
For Bituminous Coated And 25% Paved, Add	63.86	
For Smooth-Flo, Add	115.29	
33 42 11 00-0598 LF 72" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	294.21	57.22
For Bituminous Coated Pipe, Add	36.08	
For Bituminous Coated And 25% Paved, Add	68.56	
For Smooth-Flo, Add	123.77	
33 42 11 00-0599 LF 78" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	317.86	62.59
For Bituminous Coated Pipe, Add	38.54	
For Bituminous Coated And 25% Paved, Add	73.22	
For Smooth-Flo, Add	132.19	
33 42 11 00-0600 LF 84" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	338.96	67.05
For Bituminous Coated Pipe, Add	40.97	
For Bituminous Coated And 25% Paved, Add	77.84	
For Smooth-Flo, Add	140.53	
33 42 11 00-0601 LF 90" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	360.23	71.52
For Bituminous Coated Pipe, Add	43.44	
For Bituminous Coated And 25% Paved, Add	82.53	
For Smooth-Flo, Add	148.99	
33 42 11 00-0602 LF 96" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	382.06	76.00
For Bituminous Coated Pipe, Add	45.88	
For Bituminous Coated And 25% Paved, Add	87.18	
For Smooth-Flo, Add	157.38	
33 42 11 00-0603 LF 102" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	406.34	80.47
For Bituminous Coated Pipe, Add	48.33	
For Bituminous Coated And 25% Paved, Add	91.82	
For Smooth-Flo, Add	165.77	
33 42 11 00-0604 LF 108" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	432.77	89.41
For Bituminous Coated Pipe, Add	50.79	
For Bituminous Coated And 25% Paved, Add	96.50	
For Smooth-Flo, Add	174.22	
33 42 11 00-0605 LF 114" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	458.78	98.34
For Bituminous Coated Pipe, Add	53.24	
For Bituminous Coated And 25% Paved, Add	101.16	
For Smooth-Flo, Add	182.62	
33 42 11 00-0606 LF 120" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	483.65	107.29
For Bituminous Coated Pipe, Add	55.69	
For Bituminous Coated And 25% Paved, Add	105.81	
For Smooth-Flo, Add	191.02	
33 42 11 00-0607 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0571)		
33 42 11 00-0608 LF 72" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	332.64	57.22
For Bituminous Coated Pipe, Add	43.77	
For Bituminous Coated And 25% Paved, Add	83.16	
For Smooth-Flo, Add	130.65	
33 42 11 00-0609 LF 78" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	359.86	62.59
For Bituminous Coated Pipe, Add	46.94	
For Bituminous Coated And 25% Paved, Add	89.18	
For Smooth-Flo, Add	140.11	
33 42 11 00-0610 LF 84" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	384.30	67.05
For Bituminous Coated Pipe, Add	50.04	
For Bituminous Coated And 25% Paved, Add	95.07	
For Smooth-Flo, Add	149.36	
33 42 11 00-0611 LF 90" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	408.61	71.52
For Bituminous Coated Pipe, Add	53.11	
For Bituminous Coated And 25% Paved, Add	100.91	
For Smooth-Flo, Add	158.54	
33 42 11 00-0612 LF 96" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	433.73	76.00
For Bituminous Coated Pipe, Add	56.22	
For Bituminous Coated And 25% Paved, Add	106.81	
For Smooth-Flo, Add	167.81	
33 42 11 00-0613 LF 102" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe.....	461.18	80.47
For Bituminous Coated Pipe, Add	59.30	
For Bituminous Coated And 25% Paved, Add	112.66	
For Smooth-Flo, Add	177.00	



	Utilities	33	
	Stormwater Utilities	33 40	33
	Stormwater Conveyance	33 42	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0614	LF		108" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	490.79 62.40 118.55 186.25	89.41
33 42 11 00-0615	LF		114" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	520.02 65.49 124.43 195.49	98.34
33 42 11 00-0616	LF		120" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	548.04 68.57 130.28 204.68	107.29
33 42 11 00-0617	LF		126" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	582.75 72.63 138.00 216.81	116.23
33 42 11 00-0618	LF		132" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	616.07 75.98 144.37 226.81	125.17
33 42 11 00-0619	LF		138" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	652.76 79.46 150.98 237.19	134.11
33 42 11 00-0620			Helical Ribbed, Galvanized Corrugated Steel Piping (33 42 11 00-0478)		
33 42 11 00-0621			16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Piping (33 42 11 00-0620)		
33 42 11 00-0622	LF		18" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	41.91 5.14	10.16
33 42 11 00-0623	LF		21" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	47.69 6.13	11.01
33 42 11 00-0624	LF		24" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	53.10 6.96	11.86
33 42 11 00-0625	LF		30" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	69.76 8.97	15.25
33 42 11 00-0626	LF		36" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	89.97 11.24	19.66
33 42 11 00-0627	LF		42" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	102.40 13.25	23.25
33 42 11 00-0628	LF		48" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	115.37 14.92	26.82
33 42 11 00-0629	LF		54" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	137.33 18.27	30.40
33 42 11 00-0630	LF		60" 16 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	149.81 19.95	32.18
33 42 11 00-0631			14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Piping (33 42 11 00-0620)		
33 42 11 00-0632	LF		18" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	45.59 5.95	10.16
33 42 11 00-0633	LF		21" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	52.00 7.07	11.01
33 42 11 00-0634	LF		24" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	58.00 8.03	11.86
33 42 11 00-0635	LF		30" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	75.85 10.30	15.25
33 42 11 00-0636	LF		36" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	97.31 12.84	19.66
33 42 11 00-0637	LF		42" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	110.99 15.12	23.25
33 42 11 00-0638	LF		48" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	125.18 17.05	26.82
33 42 11 00-0639	LF		54" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	148.35 20.66	30.40
33 42 11 00-0640	LF		60" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	162.08 22.61	32.18
33 42 11 00-0641	LF		66" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	198.64 28.09	39.34
33 42 11 00-0642	LF		72" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	243.73 30.02	57.22
33 42 11 00-0643	LF		78" 14 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	263.59 31.98	62.59
33 42 11 00-0644			12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Piping (33 42 11 00-0620)		
33 42 11 00-0645	LF		30" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	88.21 10.76	15.25
33 42 11 00-0646	LF		36" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	112.07 13.29	19.66
33 42 11 00-0647	LF		42" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe..... <i>For Bituminous Coated Pipe, Add</i>	128.28 15.64	23.25

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0648 LF 48" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe.....	144.90	26.82
<i>For Bituminous Coated Pipe, Add</i>	17.68	
33 42 11 00-0649 LF 54" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe.....	170.57	30.40
<i>For Bituminous Coated Pipe, Add</i>	21.10	
33 42 11 00-0650 LF 60" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe.....	186.79	32.18
<i>For Bituminous Coated Pipe, Add</i>	23.17	
33 42 11 00-0651 LF 66" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe.....	225.76	39.34
<i>For Bituminous Coated Pipe, Add</i>	28.11	
33 42 11 00-0652 LF 72" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe.....	273.29	57.22
<i>For Bituminous Coated Pipe, Add</i>	30.15	
33 42 11 00-0653 LF 78" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe.....	295.58	62.59
<i>For Bituminous Coated Pipe, Add</i>	32.21	
33 42 11 00-0654 LF 84" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe.....	315.38	67.05
<i>For Bituminous Coated Pipe, Add</i>	34.26	
33 42 11 00-0655 LF 90" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe.....	335.15	71.52
<i>For Bituminous Coated Pipe, Add</i>	36.31	
33 42 11 00-0656 LF 96" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe.....	355.56	76.00
<i>For Bituminous Coated Pipe, Add</i>	38.35	
33 42 11 00-0657 LF 102" 12 Gauge, Helical Ribbed, Galvanized Corrugated Steel Pipe.....	377.26	80.47
<i>For Bituminous Coated Pipe, Add</i>	40.17	
33 42 11 00-0658 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0478)		
33 42 11 00-0659 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0658)		
33 42 11 00-0660 LF 6" 18 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	15.52	5.08
<i>For Bituminous Coated Pipe, Add</i>	1.31	
33 42 11 00-0661 LF 6" 16 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	16.62	5.08
<i>For Bituminous Coated Pipe, Add</i>	1.58	
33 42 11 00-0662 LF 8" 18 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	19.42	6.35
<i>For Bituminous Coated Pipe, Add</i>	1.74	
33 42 11 00-0663 LF 8" 16 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	20.81	6.35
<i>For Bituminous Coated Pipe, Add</i>	2.08	
33 42 11 00-0664 LF 10" 18 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	24.56	7.62
<i>For Bituminous Coated Pipe, Add</i>	2.19	
33 42 11 00-0665 LF 10" 16 Gauge, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	26.33	7.62
<i>For Bituminous Coated Pipe, Add</i>	2.62	
33 42 11 00-0666 Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Piping (33 42 11 00-0658)		
33 42 11 00-0667 LF 6" 18 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	15.68	5.08
<i>For Bituminous Coated Pipe, Add</i>	1.30	
33 42 11 00-0668 LF 6" 16 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	16.74	5.08
<i>For Bituminous Coated Pipe, Add</i>	1.55	
33 42 11 00-0669 LF 8" 18 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	19.57	6.35
<i>For Bituminous Coated Pipe, Add</i>	1.70	
33 42 11 00-0670 LF 8" 16 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	21.05	6.35
<i>For Bituminous Coated Pipe, Add</i>	2.05	
33 42 11 00-0671 LF 10" 18 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	24.82	7.62
<i>For Bituminous Coated Pipe, Add</i>	2.16	
33 42 11 00-0672 LF 10" 16 Gauge, Perforated, 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	26.63	7.62
<i>For Bituminous Coated Pipe, Add</i>	2.58	
33 42 11 00-0673 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe Fittings (33 42 11 00-0658)		
33 42 11 00-0674 EA 6" 18 Gauge, Connection Band For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	8.12	
<i>For Bituminous Coated Pipe, Add</i>	1.83	
33 42 11 00-0675 EA 8" 18 Gauge, Connection Band For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	10.75	
<i>For Bituminous Coated Pipe, Add</i>	2.42	
33 42 11 00-0676 EA 10" 18 Gauge, Connection Band For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	13.18	
<i>For Bituminous Coated Pipe, Add</i>	2.97	
33 42 11 00-0677 EA 6" 18 Gauge, Band Elbows For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	29.28	
<i>For Bituminous Coated Pipe, Add</i>	4.04	
33 42 11 00-0678 EA 6" End Caps For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	7.34	
<i>For Bituminous Coated Pipe, Add</i>	0.92	
33 42 11 00-0679 EA 8" End Caps For 1-1/2" x 1/4" Corrugation, Galvanized Corrugated Steel Pipe.....	9.16	
<i>For Bituminous Coated Pipe, Add</i>	1.38	
33 42 11 00-0680 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0478)		
33 42 11 00-0681 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0680)		
33 42 11 00-0682 LF 12" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	45.86	8.89
33 42 11 00-0683 LF 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	53.64	9.31
33 42 11 00-0684 LF 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	61.66	10.16
33 42 11 00-0685 LF 21" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	71.40	11.01
33 42 11 00-0686 LF 24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	79.55	11.86
33 42 11 00-0687 LF 30" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	104.27	15.25
33 42 11 00-0688 LF 36" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	133.87	19.66
33 42 11 00-0689 LF 42" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	154.52	23.25
33 42 11 00-0690 LF 48" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe.....	173.46	26.82



	MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0691		14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Piping ^(33 42 11 00-0690)		
33 42 11 00-0692	LF	12" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	51.79	8.89
33 42 11 00-0693	LF	15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	60.99	9.31
33 42 11 00-0694	LF	18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	70.46	10.16
33 42 11 00-0695	LF	21" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	81.59	11.01
33 42 11 00-0696	LF	24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	91.38	11.86
33 42 11 00-0697	LF	30" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	118.80	15.25
33 42 11 00-0698	LF	36" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	151.41	19.66
33 42 11 00-0699	LF	42" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	174.65	23.25
33 42 11 00-0700	LF	48" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	196.43	26.82
33 42 11 00-0701	LF	54" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	237.36	30.40
33 42 11 00-0702		12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Piping ^(33 42 11 00-0690)		
33 42 11 00-0703	LF	18" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	88.80	10.16
33 42 11 00-0704	LF	21" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	103.00	11.01
33 42 11 00-0705	LF	24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	115.73	11.86
33 42 11 00-0706	LF	30" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	149.21	15.25
33 42 11 00-0707	LF	36" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	180.45	19.66
33 42 11 00-0708	LF	42" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	217.19	23.25
33 42 11 00-0709	LF	48" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	244.99	26.82
33 42 11 00-0710	LF	54" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	292.76	30.40
33 42 11 00-0711	LF	60" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	319.87	32.18
33 42 11 00-0712	LF	66" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	391.52	39.34
33 42 11 00-0713		10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Piping ^(33 42 11 00-0690)		
33 42 11 00-0714	LF	36" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	221.25	19.66
33 42 11 00-0715	LF	42" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	255.95	23.25
33 42 11 00-0716	LF	48" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	289.01	26.82
33 42 11 00-0717	LF	54" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	342.07	30.40
33 42 11 00-0718	LF	60" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	374.77	32.18
33 42 11 00-0719	LF	66" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	451.82	39.34
33 42 11 00-0720	LF	72" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe	515.61	57.22
33 42 11 00-0721		3" x 1" Corrugation, Polymeric Corrugated Steel Piping ^(33 42 11 00-0478)		
33 42 11 00-0722		16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Piping ^(33 42 11 00-0721)		
33 42 11 00-0723	LF	36" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	167.54	19.66
33 42 11 00-0724	LF	42" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	193.35	23.25
33 42 11 00-0725	LF	48" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	216.99	26.82
33 42 11 00-0726	LF	54" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	262.11	30.40
33 42 11 00-0727	LF	60" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	285.40	32.18
33 42 11 00-0728	LF	66" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	362.66	39.34
33 42 11 00-0729	LF	72" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	418.01	57.22
33 42 11 00-0730	LF	78" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	447.97	62.59
33 42 11 00-0731	LF	84" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	475.56	67.05
33 42 11 00-0732	LF	90" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	503.17	71.52
33 42 11 00-0733	LF	96" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	531.34	76.00
33 42 11 00-0734	LF	102" 16 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	562.15	80.47
33 42 11 00-0735		14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Piping ^(33 42 11 00-0721)		
33 42 11 00-0736	LF	54" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	293.82	30.40
33 42 11 00-0737	LF	60" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	320.45	32.18
33 42 11 00-0738	LF	66" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	401.26	39.34
33 42 11 00-0739	LF	72" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	460.00	57.22
33 42 11 00-0740	LF	78" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	493.39	62.59
33 42 11 00-0741	LF	84" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	524.53	67.05
33 42 11 00-0742	LF	90" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	555.47	71.52
33 42 11 00-0743	LF	96" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	587.05	76.00
33 42 11 00-0744	LF	102" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	621.31	80.47
33 42 11 00-0745	LF	108" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	657.54	89.41
33 42 11 00-0746	LF	114" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	693.00	98.34
33 42 11 00-0747		12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Piping ^(33 42 11 00-0721)		
33 42 11 00-0748	LF	60" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	400.18	32.18
33 42 11 00-0749	LF	66" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	489.96	39.34
33 42 11 00-0750	LF	72" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	556.39	57.22
33 42 11 00-0751	LF	78" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	597.51	62.59
33 42 11 00-0752	LF	84" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	636.34	67.05
33 42 11 00-0753	LF	90" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	675.02	71.52
33 42 11 00-0754	LF	96" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	714.39	76.00
33 42 11 00-0755	LF	102" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	756.33	80.47
33 42 11 00-0756	LF	108" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	800.18	89.41

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0757 LF 114" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	843.49	98.34
33 42 11 00-0758 LF 120" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	886.02	107.29
33 42 11 00-0759 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0721)		
33 42 11 00-0760 LF 72" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	644.22	57.22
33 42 11 00-0761 LF 78" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	692.49	62.59
33 42 11 00-0762 LF 84" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	738.55	67.05
33 42 11 00-0763 LF 90" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	784.41	71.52
33 42 11 00-0764 LF 96" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	831.01	76.00
33 42 11 00-0765 LF 102" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	880.16	80.47
33 42 11 00-0766 LF 108" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	931.23	89.41
33 42 11 00-0767 LF 114" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	981.70	98.34
33 42 11 00-0768 LF 120" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	1,031.43	107.29
33 42 11 00-0769 LF 126" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	1,082.65	116.23
33 42 11 00-0770 LF 132" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	1,136.31	125.17
33 42 11 00-0771 LF 138" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe	1,192.73	134.11
33 42 11 00-0772 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0478)		
33 42 11 00-0773 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0772)		
33 42 11 00-0774 LF 48" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	210.16	26.82
33 42 11 00-0775 LF 54" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	254.59	30.40
33 42 11 00-0776 LF 60" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	276.78	32.18
33 42 11 00-0777 LF 66" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	346.64	39.34
33 42 11 00-0778 LF 72" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	400.68	57.22
33 42 11 00-0779 LF 78" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	429.28	62.59
33 42 11 00-0780 LF 84" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	455.32	67.05
33 42 11 00-0781 LF 90" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	481.30	71.52
33 42 11 00-0782 LF 96" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	508.18	76.00
33 42 11 00-0783 LF 102" 16 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	538.03	80.47
33 42 11 00-0784 14 Gauge, 125mm x 25mm Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0772)		
33 42 11 00-0785 LF 54" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	292.25	30.40
33 42 11 00-0786 LF 60" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	318.72	32.18
33 42 11 00-0787 LF 66" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	392.38	39.34
33 42 11 00-0788 LF 72" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	450.11	57.22
33 42 11 00-0789 LF 78" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	483.17	62.59
33 42 11 00-0790 LF 84" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	513.41	67.05
33 42 11 00-0791 LF 90" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	541.49	71.52
33 42 11 00-0792 LF 96" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	574.49	76.00
33 42 11 00-0793 LF 102" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	607.84	80.47
33 42 11 00-0794 LF 108" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	643.00	89.41
33 42 11 00-0795 LF 114" 14 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	678.36	98.34
33 42 11 00-0796 12 Gauge, 125mm x 25mm Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0772)		
33 42 11 00-0797 LF 60" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	402.79	32.18
33 42 11 00-0798 LF 66" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	485.40	39.34
33 42 11 00-0799 LF 72" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	551.91	57.22
33 42 11 00-0800 LF 78" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	592.70	62.59
33 42 11 00-0801 LF 84" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	630.82	67.05
33 42 11 00-0802 LF 90" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	669.40	71.52
33 42 11 00-0803 LF 96" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	708.40	76.00
33 42 11 00-0804 LF 102" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	749.75	80.47
33 42 11 00-0805 LF 108" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	793.49	89.41
33 42 11 00-0806 LF 114" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	836.66	98.34
33 42 11 00-0807 LF 120" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	878.67	107.29
33 42 11 00-0808 10 Gauge, 125mm x 25mm Corrugation, Polymeric Corrugated Steel Piping (33 42 11 00-0772)		
33 42 11 00-0809 LF 72" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	644.18	57.22
33 42 11 00-0810 LF 78" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	693.55	62.59
33 42 11 00-0811 LF 84" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	739.76	67.05
33 42 11 00-0812 LF 90" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	785.59	71.52
33 42 11 00-0813 LF 96" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	832.41	76.00
33 42 11 00-0814 LF 102" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	881.48	80.47
33 42 11 00-0815 LF 108" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	932.77	89.41
33 42 11 00-0816 LF 114" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	983.68	98.34
33 42 11 00-0817 LF 120" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	1,033.31	107.29
33 42 11 00-0818 LF 126" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	1,096.47	116.23
33 42 11 00-0819 LF 132" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	1,153.29	125.17
33 42 11 00-0820 LF 138" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe	1,214.34	134.11



Utilities	33	CS
Stormwater Utilities	33 40	
Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0821 Galvanized Corrugated Steel Pipe-Arch <small>(33 42 11 00-0477)</small>		
33 42 11 00-0822 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <small>(33 42 11 00-0821)</small>		
33 42 11 00-0823 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <small>(33 42 11 00-0822)</small>		
33 42 11 00-0824 LF 17" x 13" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	34.15	9.31
For Bituminous Coated Pipe, Add	3.74	
For Bituminous Coated And 25% Paved, Add	9.04	
For Smooth-Flo, Add	14.91	
33 42 11 00-0825 LF 21" x 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	37.77	10.16
For Bituminous Coated Pipe, Add	4.47	
For Bituminous Coated And 25% Paved, Add	10.80	
For Smooth-Flo, Add	17.81	
33 42 11 00-0826 LF 24" x 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	42.99	11.01
For Bituminous Coated Pipe, Add	5.38	
For Bituminous Coated And 25% Paved, Add	13.00	
For Smooth-Flo, Add	21.45	
33 42 11 00-0827 LF 28" x 20" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	48.11	11.86
For Bituminous Coated Pipe, Add	6.20	
For Bituminous Coated And 25% Paved, Add	14.98	
For Smooth-Flo, Add	24.71	
33 42 11 00-0828 LF 35" x 24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	62.87	15.25
For Bituminous Coated Pipe, Add	7.87	
For Bituminous Coated And 25% Paved, Add	19.02	
For Smooth-Flo, Add	31.38	
33 42 11 00-0829 LF 42" x 29" 16 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	82.48	19.66
For Bituminous Coated Pipe, Add	10.15	
For Bituminous Coated And 25% Paved, Add	24.53	
For Smooth-Flo, Add	40.46	
33 42 11 00-0830 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <small>(33 42 11 00-0822)</small>		
33 42 11 00-0831 LF 17" x 13" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	37.18	9.31
For Bituminous Coated Pipe, Add	3.88	
For Bituminous Coated And 25% Paved, Add	9.08	
For Smooth-Flo, Add	14.89	
33 42 11 00-0832 LF 21" x 15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	41.48	10.16
For Bituminous Coated Pipe, Add	4.65	
For Bituminous Coated And 25% Paved, Add	10.89	
For Smooth-Flo, Add	17.86	
33 42 11 00-0833 LF 24" x 18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	47.12	11.01
For Bituminous Coated Pipe, Add	5.53	
For Bituminous Coated And 25% Paved, Add	12.94	
For Smooth-Flo, Add	21.23	
33 42 11 00-0834 LF 28" x 20" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	52.90	11.86
For Bituminous Coated Pipe, Add	6.38	
For Bituminous Coated And 25% Paved, Add	14.92	
For Smooth-Flo, Add	24.48	
33 42 11 00-0835 LF 35" x 24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	68.85	15.25
For Bituminous Coated Pipe, Add	8.08	
For Bituminous Coated And 25% Paved, Add	18.90	
For Smooth-Flo, Add	31.00	
33 42 11 00-0836 LF 42" x 29" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	89.60	19.66
For Bituminous Coated Pipe, Add	10.29	
For Bituminous Coated And 25% Paved, Add	24.08	
For Smooth-Flo, Add	39.49	
33 42 11 00-0837 LF 49" x 33" 14 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	102.54	23.25
For Bituminous Coated Pipe, Add	12.26	
For Bituminous Coated And 25% Paved, Add	28.68	
For Smooth-Flo, Add	47.04	
33 42 11 00-0838 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <small>(33 42 11 00-0822)</small>		
33 42 11 00-0839 LF 21" x 15" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	53.53	10.73
For Bituminous Coated Pipe, Add	5.04	
For Bituminous Coated And 25% Paved, Add	11.21	
For Smooth-Flo, Add	17.23	
33 42 11 00-0840 LF 24" x 18" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	60.87	11.62
For Bituminous Coated Pipe, Add	5.97	
For Bituminous Coated And 25% Paved, Add	13.29	
For Smooth-Flo, Add	20.44	
33 42 11 00-0841 LF 28" x 20" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	68.20	12.52
For Bituminous Coated Pipe, Add	6.85	
For Bituminous Coated And 25% Paved, Add	15.24	
For Smooth-Flo, Add	23.44	
33 42 11 00-0842 LF 35" x 24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch	88.36	16.09
For Bituminous Coated Pipe, Add	8.62	
For Bituminous Coated And 25% Paved, Add	19.19	
For Smooth-Flo, Add	29.51	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0843	LF		42" x 29" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	104.11 10.79 24.02 36.93	19.66
33 42 11 00-0844	LF		49" x 33" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	119.29 12.76 28.40 43.67	23.25
33 42 11 00-0845	LF		57" x 38" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	138.84 15.14 33.68 51.79	26.82
33 42 11 00-0846	LF		64" x 43" 12 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	155.52 16.71 37.19 57.19	30.40
33 42 11 00-0847			10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <small>(33 42 11 00-0822)</small>		
33 42 11 00-0848	LF		42" x 29" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	117.77 13.00 27.37 34.52	19.66
33 42 11 00-0849	LF		49" x 33" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	135.22 15.34 32.29 40.72	23.25
33 42 11 00-0850	LF		57" x 38" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	156.89 18.05 37.99 47.92	26.82
33 42 11 00-0851	LF		64" x 43" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	175.93 20.01 42.13 53.13	30.40
33 42 11 00-0852	LF		71" x 47" 10 Gauge, 2-2/3" x 1/2" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	192.66 21.97 46.25 58.33	32.18
33 42 11 00-0853			3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <small>(33 42 11 00-0821)</small>		
33 42 11 00-0854			14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <small>(33 42 11 00-0853)</small>		
33 42 11 00-0855	LF		60" x 46" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	155.33 19.28 58.62 65.57	30.40
33 42 11 00-0856	LF		66" x 51" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	169.70 21.10 64.15 71.75	32.18
33 42 11 00-0857	LF		73" x 55" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	209.55 26.50 80.57 90.11	39.34
33 42 11 00-0858	LF		81" x 59" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	255.86 28.41 86.38 96.61	57.22
33 42 11 00-0859	LF		87" x 63" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	277.28 30.42 92.48 103.43	62.59
33 42 11 00-0860	LF		95" x 67" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	296.31 32.44 98.62 110.30	67.05
33 42 11 00-0861	LF		103" x 71" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	315.28 34.45 104.72 117.12	71.52
33 42 11 00-0862	LF		112" x 75" 14 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	334.87 36.45 110.80 123.92	76.00
33 42 11 00-0863			12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <small>(33 42 11 00-0853)</small>		
33 42 11 00-0864	LF		66" x 51" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch..... <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	201.11 27.38 71.75 84.89	32.18



	Utilities	33	
	Stormwater Utilities	33 40	CS
	Stormwater Conveyance	33 42	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0865	LF		73" x 55" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	244.38 33.47 87.69 103.76	39.34
33 42 11 00-0866	LF		81" x 59" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	293.78 36.00 94.31 111.59	57.22
33 42 11 00-0867	LF		87" x 63" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	318.26 38.62 101.18 119.72	62.59
33 42 11 00-0868	LF		95" x 67" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	340.35 41.25 108.07 127.87	67.05
33 42 11 00-0869	LF		103" x 71" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	362.41 43.87 114.94 136.00	71.52
33 42 11 00-0870	LF		112" x 75" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	385.06 46.48 121.79 144.10	76.00
33 42 11 00-0871	LF		117" x 79" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	410.33 49.13 128.71 152.29	80.47
33 42 11 00-0872	LF		128" x 83" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	437.56 51.75 135.59 160.43	89.41
33 42 11 00-0873	LF		137" x 87" 12 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	465.75 54.64 143.15 169.37	98.34
33 42 11 00-0874			10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch (33 42 11 00-0853)		
33 42 11 00-0875	LF		81" x 59" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	329.01 43.04 102.44 111.27	57.22
33 42 11 00-0876	LF		87" x 63" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	356.40 46.25 110.07 119.55	62.59
33 42 11 00-0877	LF		95" x 67" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	381.39 49.46 117.71 127.84	67.05
33 42 11 00-0878	LF		103" x 71" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	406.28 52.65 125.30 136.09	71.52
33 42 11 00-0879	LF		112" x 75" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	431.86 55.84 132.91 144.36	76.00
33 42 11 00-0880	LF		117" x 79" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	459.98 59.06 140.55 152.66	80.47
33 42 11 00-0881	LF		128" x 83" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	490.11 62.26 148.18 160.94	89.41
33 42 11 00-0882	LF		137" x 87" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	520.96 65.68 156.31 169.78	98.34
33 42 11 00-0883	LF		142" x 91" 10 Gauge, 3" x 1" Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	554.11 69.78 166.08 180.39	107.29
33 42 11 00-0884			125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch (33 42 11 00-0821)		
33 42 11 00-0885			12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch (33 42 11 00-0884)		

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0886	LF		81" x 59" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	297.24 36.69 89.52 113.92	57.22
33 42 11 00-0887	LF		87" x 63" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	321.37 39.24 95.75 121.84	62.59
33 42 11 00-0888	LF		95" x 67" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	342.93 41.76 101.90 129.68	67.05
33 42 11 00-0889	LF		103" x 71" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	364.48 44.29 108.06 137.51	71.52
33 42 11 00-0890	LF		112" x 75" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	386.76 46.82 114.25 145.39	76.00
33 42 11 00-0891	LF		117" x 79" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	411.75 49.41 120.56 153.42	80.47
33 42 11 00-0892	LF		128" x 83" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	438.70 51.98 126.83 161.39	89.41
33 42 11 00-0893	LF		137" x 87" 12 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	468.55 55.20 134.68 171.38	98.34
33 42 11 00-0894			10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <small>(33-42-11-00-0884)</small>		
33 42 11 00-0895	LF		81" x 59" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	336.24 44.49 100.55 109.22	57.22
33 42 11 00-0896	LF		87" x 63" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	363.49 47.66 107.72 117.02	62.59
33 42 11 00-0897	LF		95" x 67" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	388.22 50.82 114.86 124.77	67.05
33 42 11 00-0898	LF		103" x 71" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	413.03 54.00 122.03 132.56	71.52
33 42 11 00-0899	LF		112" x 75" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	437.95 57.06 128.96 140.09	76.00
33 42 11 00-0900	LF		117" x 79" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	466.53 60.37 136.43 148.20	80.47
33 42 11 00-0901	LF		128" x 83" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	496.71 63.58 143.69 156.09	89.41
33 42 11 00-0902	LF		137" x 87" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	529.77 67.44 152.41 165.57	98.34
33 42 11 00-0903	LF		142" x 91" 10 Gauge, 125 mm x 25 mm Corrugation, Galvanized Corrugated Steel Pipe-Arch <i>For Bituminous Coated Pipe, Add</i> <i>For Bituminous Coated And 25% Paved, Add</i> <i>For Smooth-Flo, Add</i>	560.62 71.08 160.65 174.51	107.29
33 42 11 00-0904			2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch <small>(33-42-11-00-0821)</small>		
33 42 11 00-0905			16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch <small>(33-42-11-00-0904)</small>		
33 42 11 00-0906	LF		17" x 13" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	53.69	9.31
33 42 11 00-0907	LF		21" x 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	61.13	10.16
33 42 11 00-0908	LF		24" x 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	71.17	11.01
33 42 11 00-0909	LF		28" x 20" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	80.63	11.86
33 42 11 00-0910	LF		35" x 24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	104.30	15.25
33 42 11 00-0911	LF		42" x 29" 16 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch.....	136.30	19.66



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Stormwater Utilities	33 40	
Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0912 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch <small>(33 42 11 00-0904)</small>		
33 42 11 00-0913 LF 17" x 13" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	60.67	9.31
33 42 11 00-0914 LF 21" x 15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	69.65	10.16
33 42 11 00-0915 LF 24" x 18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	80.68	11.01
33 42 11 00-0916 LF 28" x 20" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	91.69	11.86
33 42 11 00-0917 LF 35" x 24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	118.04	15.25
33 42 11 00-0918 LF 42" x 29" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	152.65	19.66
33 42 11 00-0919 LF 49" x 33" 14 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	177.81	23.25
33 42 11 00-0920 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch <small>(33 42 11 00-0904)</small>		
33 42 11 00-0921 LF 21" x 15" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	90.54	10.16
33 42 11 00-0922 LF 24" x 18" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	105.42	11.01
33 42 11 00-0923 LF 28" x 20" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	119.71	11.86
33 42 11 00-0924 LF 35" x 24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	153.01	15.25
33 42 11 00-0925 LF 42" x 29" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	194.89	19.66
33 42 11 00-0926 LF 49" x 33" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	227.00	23.25
33 42 11 00-0927 LF 57" x 38" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	267.44	26.82
33 42 11 00-0928 LF 64" x 43" 12 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	297.16	30.40
33 42 11 00-0929 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch <small>(33 42 11 00-0904)</small>		
33 42 11 00-0930 LF 42" x 29" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	228.02	19.66
33 42 11 00-0931 LF 49" x 33" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	265.66	23.25
33 42 11 00-0932 LF 57" x 38" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	311.27	26.82
33 42 11 00-0933 LF 64" x 43" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	346.70	30.40
33 42 11 00-0934 LF 64" x 43" 10 Gauge, 2-2/3" x 1/2" Corrugation, Polymeric Corrugated Steel Pipe-Arch	379.76	32.18
33 42 11 00-0935 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch <small>(33 42 11 00-0821)</small>		
33 42 11 00-0936 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch <small>(33 42 11 00-0935)</small>		
33 42 11 00-0937 LF 60" x 46" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	300.04	30.40
33 42 11 00-0938 LF 66" x 51" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	327.77	32.18
33 42 11 00-0939 LF 73" x 55" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	409.75	39.34
33 42 11 00-0940 LF 81" x 59" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	470.20	57.22
33 42 11 00-0941 LF 87" x 63" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	506.49	62.59
33 42 11 00-0942 LF 95" x 67" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	540.43	67.05
33 42 11 00-0943 LF 103" x 71" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	574.24	71.52
33 42 11 00-0944 LF 112" x 75" 14 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	608.77	76.00
33 42 11 00-0945 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch <small>(33 42 11 00-0935)</small>		
33 42 11 00-0946 LF 66" x 51" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	407.65	32.18
33 42 11 00-0947 LF 73" x 55" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	498.68	39.34
33 42 11 00-0948 LF 81" x 59" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	566.98	57.22
33 42 11 00-0949 LF 87" x 63" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	610.99	62.59
33 42 11 00-0950 LF 95" x 67" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	652.69	67.05
33 42 11 00-0951 LF 103" x 71" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	694.34	71.52
33 42 11 00-0952 LF 112" x 75" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	736.54	76.00
33 42 11 00-0953 LF 117" x 79" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	781.48	80.47
33 42 11 00-0954 LF 128" x 83" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	828.30	89.41
33 42 11 00-0955 LF 137" x 87" 12 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	878.04	98.34
33 42 11 00-0956 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch <small>(33 42 11 00-0935)</small>		
33 42 11 00-0957 LF 81" x 59" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	654.79	57.22
33 42 11 00-0958 LF 87" x 63" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	706.05	62.59
33 42 11 00-0959 LF 95" x 67" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	755.01	67.05
33 42 11 00-0960 LF 103" x 71" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	803.72	71.52
33 42 11 00-0961 LF 112" x 75" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	853.15	76.00
33 42 11 00-0962 LF 117" x 79" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	905.27	80.47
33 42 11 00-0963 LF 128" x 83" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	959.32	89.41
33 42 11 00-0964 LF 137" x 87" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,015.65	98.34
33 42 11 00-0965 LF 142" x 91" 10 Gauge, 3" x 1" Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,079.41	107.29
33 42 11 00-0966 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch <small>(33 42 11 00-0821)</small>		
33 42 11 00-0967 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch <small>(33 42 11 00-0966)</small>		
33 42 11 00-0968 LF 81" x 59" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	559.09	57.22
33 42 11 00-0969 LF 87" x 63" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	601.12	62.59
33 42 11 00-0970 LF 95" x 67" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	640.36	67.05
33 42 11 00-0971 LF 103" x 71" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	679.55	71.52
33 42 11 00-0972 LF 112" x 75" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	719.62	76.00

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-0973 LF 117" x 79" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	762.72	80.47
33 42 11 00-0974 LF 128" x 83" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	807.64	89.41
33 42 11 00-0975 LF 137" x 87" 12 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	860.05	98.34
33 42 11 00-0976 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch <small>(33 42 11 00-0966)</small>		
33 42 11 00-0977 LF 81" x 59" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	652.74	57.22
33 42 11 00-0978 LF 87" x 63" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	702.20	62.59
33 42 11 00-0979 LF 95" x 67" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	749.04	67.05
33 42 11 00-0980 LF 103" x 71" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	796.09	71.52
33 42 11 00-0981 LF 112" x 75" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	842.55	76.00
33 42 11 00-0982 LF 117" x 79" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	894.24	80.47
33 42 11 00-0983 LF 128" x 83" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	946.95	89.41
33 42 11 00-0984 LF 137" x 87" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,007.15	98.34
33 42 11 00-0985 LF 142" x 91" 10 Gauge, 125 mm x 25 mm Corrugation, Polymeric Corrugated Steel Pipe-Arch	1,063.39	107.29
33 42 11 00-0986 Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-0477)</small>		
33 42 11 00-0987 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-0986)</small>		
33 42 11 00-0988 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-0987)</small>		
33 42 11 00-0989 LF 12" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	32.24	8.89
For 1/2 Bituminous Coated And 25% Paved, Add	5.56	
33 42 11 00-0990 LF 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	36.47	9.31
For 1/2 Bituminous Coated And 25% Paved, Add	7.01	
33 42 11 00-0991 LF 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	40.86	10.16
For 1/2 Bituminous Coated And 25% Paved, Add	8.50	
33 42 11 00-0992 LF 21" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	46.53	11.01
For 1/2 Bituminous Coated And 25% Paved, Add	10.16	
33 42 11 00-0993 LF 24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	51.54	11.86
For 1/2 Bituminous Coated And 25% Paved, Add	11.44	
33 42 11 00-0994 LF 30" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	68.00	15.25
For 1/2 Bituminous Coated And 25% Paved, Add	14.84	
33 42 11 00-0995 LF 36" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	88.07	19.66
For 1/2 Bituminous Coated And 25% Paved, Add	18.72	
33 42 11 00-0996 LF 42" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	100.33	23.25
For 1/2 Bituminous Coated And 25% Paved, Add	22.14	
33 42 11 00-0997 LF 48" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	112.76	26.82
For 1/2 Bituminous Coated And 25% Paved, Add	24.81	
33 42 11 00-0998 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-0987)</small>		
33 42 11 00-0999 LF 12" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	35.25	8.89
For 1/2 Bituminous Coated And 25% Paved, Add	5.29	
33 42 11 00-1000 LF 15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	40.19	9.31
For 1/2 Bituminous Coated And 25% Paved, Add	6.63	
33 42 11 00-1001 LF 18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	45.28	10.16
For 1/2 Bituminous Coated And 25% Paved, Add	8.02	
33 42 11 00-1002 LF 21" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	51.66	11.01
For 1/2 Bituminous Coated And 25% Paved, Add	9.54	
33 42 11 00-1003 LF 24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	57.49	11.86
For 1/2 Bituminous Coated And 25% Paved, Add	10.79	
33 42 11 00-1004 LF 30" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	75.28	15.25
For 1/2 Bituminous Coated And 25% Paved, Add	13.86	
33 42 11 00-1005 LF 36" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	96.88	19.66
For 1/2 Bituminous Coated And 25% Paved, Add	17.37	
33 42 11 00-1006 LF 42" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	110.48	23.25
For 1/2 Bituminous Coated And 25% Paved, Add	20.46	
33 42 11 00-1007 LF 48" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	124.33	26.82
For 1/2 Bituminous Coated And 25% Paved, Add	22.99	
33 42 11 00-1008 LF 54" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	148.64	30.40
For 1/2 Bituminous Coated And 25% Paved, Add	28.26	
33 42 11 00-1009 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-0987)</small>		
33 42 11 00-1010 LF 18" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	54.58	10.16
For 1/2 Bituminous Coated And 25% Paved, Add	7.47	
33 42 11 00-1011 LF 21" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	62.51	11.01
For 1/2 Bituminous Coated And 25% Paved, Add	8.84	
33 42 11 00-1012 LF 24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	69.82	11.86
For 1/2 Bituminous Coated And 25% Paved, Add	10.02	
33 42 11 00-1013 LF 30" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	90.67	15.25
For 1/2 Bituminous Coated And 25% Paved, Add	12.77	
33 42 11 00-1014 LF 36" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe	115.44	19.66
For 1/2 Bituminous Coated And 25% Paved, Add	15.85	



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33 42 11 00-1015	LF		42" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	131.99 18.59	23.25
33 42 11 00-1016	LF		48" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	148.87 20.97	26.82
33 42 11 00-1017	LF		54" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	176.67 25.32	30.40
33 42 11 00-1018	LF		60" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	192.94 27.68	32.18
33 42 11 00-1019	LF		66" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	235.37 34.04	39.34
33 42 11 00-1020			10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-0987)</small>		
33 42 11 00-1021	LF		36" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	132.14 17.36	19.66
33 42 11 00-1022	LF		42" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	151.52 20.35	23.25
33 42 11 00-1023	LF		48" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	171.03 22.98	26.82
33 42 11 00-1024	LF		54" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	201.52 27.38	30.40
33 42 11 00-1025	LF		60" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	220.60 30.03	32.18
33 42 11 00-1026	LF		66" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	265.75 36.23	39.34
33 42 11 00-1027	LF		72" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	316.12 38.85	57.22
33 42 11 00-1028			3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-0986)</small>		
33 42 11 00-1029			16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-1028)</small>		
33 42 11 00-1030	LF		36" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	101.19 20.81	19.66
33 42 11 00-1031	LF		42" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	115.35 24.44	23.25
33 42 11 00-1032	LF		48" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	129.66 27.41	26.82
33 42 11 00-1033	LF		54" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	154.56 33.48	30.40
33 42 11 00-1034	LF		60" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	168.40 36.47	32.18
33 42 11 00-1035	LF		66" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	210.88 46.85	39.34
33 42 11 00-1036	LF		72" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	256.46 49.93	57.22
33 42 11 00-1037	LF		78" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	276.68 53.03	62.59
33 42 11 00-1038	LF		84" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	294.49 56.13	67.05
33 42 11 00-1039	LF		90" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	312.30 59.24	71.52
33 42 11 00-1040	LF		96" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	330.73 62.33	76.00
33 42 11 00-1041	LF		102" 16 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	351.72 65.46	80.47
33 42 11 00-1042			14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-1028)</small>		
33 42 11 00-1043	LF		54" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	169.64 29.01	30.40
33 42 11 00-1044	LF		60" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	185.06 31.67	32.18
33 42 11 00-1045	LF		66" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	229.22 39.87	39.34
33 42 11 00-1046	LF		72" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	276.44 42.61	57.22
33 42 11 00-1047	LF		78" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	298.28 45.35	62.59
33 42 11 00-1048	LF		84" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	317.79 48.12	67.05
33 42 11 00-1049	LF		90" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	337.19 50.86	71.52
33 42 11 00-1050	LF		96" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	357.23 53.60	76.00
33 42 11 00-1051	LF		102" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	379.84 56.37	80.47
33 42 11 00-1052	LF		108" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	404.46 59.12	89.41
33 42 11 00-1053	LF		114" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe <i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	428.57 61.83	98.34

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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-1054			12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1028)		
33 42 11 00-1055	LF		60" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	222.11	32.18
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	42.48	
33 42 11 00-1056	LF		66" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	270.23	39.34
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	51.97	
33 42 11 00-1057	LF		72" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	321.02	57.22
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	55.74	
33 42 11 00-1058	LF		78" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	346.48	62.59
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	59.53	
33 42 11 00-1059	LF		84" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	369.57	67.05
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	63.34	
33 42 11 00-1060	LF		90" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	392.59	71.52
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	67.13	
33 42 11 00-1061	LF		96" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	416.24	76.00
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	70.91	
33 42 11 00-1062	LF		102" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	442.44	80.47
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	74.71	
33 42 11 00-1063	LF		108" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	470.64	89.41
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	78.50	
33 42 11 00-1064	LF		114" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	498.37	98.34
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	82.26	
33 42 11 00-1065	LF		120" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	525.14	107.29
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	86.06	
33 42 11 00-1066			10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1028)		
33 42 11 00-1067	LF		72" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	362.60	57.22
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	68.42	
33 42 11 00-1068	LF		78" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	391.41	62.59
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	73.22	
33 42 11 00-1069	LF		84" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	417.92	67.05
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	78.05	
33 42 11 00-1070	LF		90" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	444.31	71.52
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	82.85	
33 42 11 00-1071	LF		96" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	471.42	76.00
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	87.66	
33 42 11 00-1072	LF		102" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	501.05	80.47
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	92.50	
33 42 11 00-1073	LF		108" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	532.62	89.41
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	97.30	
33 42 11 00-1074	LF		114" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	563.75	98.34
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	102.07	
33 42 11 00-1075	LF		120" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	593.95	107.29
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	106.91	
33 42 11 00-1076	LF		126" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	625.77	116.23
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	111.70	
33 42 11 00-1077	LF		132" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	659.89	125.17
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	116.53	
33 42 11 00-1078	LF		138" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	696.75	134.11
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	121.36	
33 42 11 00-1079			125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-0986)		
33 42 11 00-1080			16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1079)		
33 42 11 00-1081	LF		48" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	130.14	26.82
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	33.96	
33 42 11 00-1082	LF		54" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	155.44	30.40
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	41.60	
33 42 11 00-1083	LF		60" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	169.17	32.18
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	45.25	
33 42 11 00-1084	LF		66" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	209.18	39.34
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	56.96	
33 42 11 00-1085	LF		72" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	254.56	57.22
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	60.67	
33 42 11 00-1086	LF		78" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	274.56	62.59
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	64.39	
33 42 11 00-1087	LF		84" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	292.05	67.05
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	68.07	
33 42 11 00-1088	LF		90" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	309.50	71.52
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	71.74	
33 42 11 00-1089	LF		96" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	327.76	76.00
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	75.48	
33 42 11 00-1090	LF		102" 16 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	348.69	80.47
			<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	79.30	



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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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33 42 11 00-1091	14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-1079)</small>		
33 42 11 00-1092	LF 54" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	174.29	30.40
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	39.23	
33 42 11 00-1093	LF 60" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	190.17	32.18
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	42.83	
33 42 11 00-1094	LF 66" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	232.06	39.34
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	52.71	
33 42 11 00-1095	LF 72" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	279.30	57.22
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	56.27	
33 42 11 00-1096	LF 78" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	301.51	62.59
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	59.96	
33 42 11 00-1097	LF 84" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	321.10	67.05
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	63.58	
33 42 11 00-1098	LF 90" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	339.62	71.52
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	66.83	
33 42 11 00-1099	LF 96" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	360.89	76.00
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	70.81	
33 42 11 00-1100	LF 102" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	383.61	80.47
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	74.43	
33 42 11 00-1101	LF 108" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	408.26	89.41
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	78.01	
33 42 11 00-1102	LF 114" 14 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	432.82	98.34
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	81.69	

33 42 11 00-1103	12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-1079)</small>		
33 42 11 00-1104	LF 60" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	229.42	32.18
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	47.26	
33 42 11 00-1105	LF 66" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	275.33	39.34
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	56.71	
33 42 11 00-1106	LF 72" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	326.69	57.22
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	60.89	
33 42 11 00-1107	LF 78" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	352.52	62.59
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	65.02	
33 42 11 00-1108	LF 84" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	375.83	67.05
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	69.13	
33 42 11 00-1109	LF 90" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	399.34	71.52
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	73.30	
33 42 11 00-1110	LF 96" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	423.35	76.00
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	77.42	
33 42 11 00-1111	LF 102" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	449.84	80.47
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	81.55	
33 42 11 00-1112	LF 108" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	478.49	89.41
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	85.71	
33 42 11 00-1113	LF 114" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	506.70	98.34
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	89.84	
33 42 11 00-1114	LF 120" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	533.79	107.29
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	93.98	

33 42 11 00-1115	10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-1079)</small>		
33 42 11 00-1116	LF 72" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	372.06	57.22
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	73.87	
33 42 11 00-1117	LF 78" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	402.12	62.59
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	79.21	
33 42 11 00-1118	LF 84" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	429.37	67.05
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	84.44	
33 42 11 00-1119	LF 90" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	456.44	71.52
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	89.63	
33 42 11 00-1120	LF 96" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	484.31	76.00
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	94.86	
33 42 11 00-1121	LF 102" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	514.57	80.47
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	100.06	
33 42 11 00-1122	LF 108" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	546.96	89.41
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	105.29	
33 42 11 00-1123	LF 114" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	578.97	98.34
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	110.51	
33 42 11 00-1124	LF 120" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	609.77	107.29
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	115.71	
33 42 11 00-1125	LF 126" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	648.16	116.23
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	122.57	
33 42 11 00-1126	LF 132" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	684.49	125.17
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	128.22	
33 42 11 00-1127	LF 138" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe	724.30	134.11
	<i>For 1/2 Bituminous Coated And 25% Paved, Add</i>	134.09	

33 42 11 00-1128	Helical Ribbed, Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-0986)</small>		
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33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**MINOR
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33 42 11 00-1129	16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1129)		
33 42 11 00-1130	LF 18" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	45.93	10.16
33 42 11 00-1131	LF 21" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	52.40	11.01
33 42 11 00-1132	LF 24" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	58.49	11.86
33 42 11 00-1133	LF 30" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	76.47	15.25
33 42 11 00-1134	LF 36" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	98.02	19.66
33 42 11 00-1135	LF 42" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	111.81	23.25
33 42 11 00-1136	LF 48" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	126.11	26.82
33 42 11 00-1137	LF 54" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	149.43	30.40
33 42 11 00-1138	LF 60" 16 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	163.24	32.18
33 42 11 00-1139	14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1139)		
33 42 11 00-1140	LF 18" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	50.30	10.16
33 42 11 00-1141	LF 21" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	57.50	11.01
33 42 11 00-1142	LF 24" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	64.27	11.86
33 42 11 00-1143	LF 30" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	83.70	15.25
33 42 11 00-1144	LF 36" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	106.72	19.66
33 42 11 00-1145	LF 42" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	121.98	23.25
33 42 11 00-1146	LF 48" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	137.73	26.82
33 42 11 00-1147	LF 54" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	162.50	30.40
33 42 11 00-1148	LF 60" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	177.81	32.18
33 42 11 00-1149	LF 66" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	216.10	39.34
33 42 11 00-1150	LF 72" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	262.75	57.22
33 42 11 00-1151	LF 78" 14 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	284.16	62.59
33 42 11 00-1152	12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1152)		
33 42 11 00-1153	LF 30" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	98.35	15.25
33 42 11 00-1154	LF 36" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	124.26	19.66
33 42 11 00-1155	LF 42" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	142.53	23.25
33 42 11 00-1156	LF 48" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	161.17	26.82
33 42 11 00-1157	LF 54" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	188.85	30.40
33 42 11 00-1158	LF 60" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	207.14	32.18
33 42 11 00-1159	LF 66" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	248.29	39.34
33 42 11 00-1160	LF 72" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	297.84	57.22
33 42 11 00-1161	LF 78" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	322.17	62.59
33 42 11 00-1162	LF 84" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	343.98	67.05
33 42 11 00-1163	LF 90" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	365.81	71.52
33 42 11 00-1164	LF 96" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	388.21	76.00
33 42 11 00-1165	LF 102" 12 Gauge, Helical Ribbed, Aluminized Type 2 Corrugated Steel Pipe.....	411.72	80.47
33 42 11 00-1166	Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-0477)		
33 42 11 00-1167	2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-1166)		
33 42 11 00-1168	16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-1167)		
33 42 11 00-1169	LF 17" x 13" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	37.49	9.31
	For 1/2 Bituminous Coated And 40% Paved, Add	9.05	
33 42 11 00-1170	LF 21" x 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	41.77	10.16
	For 1/2 Bituminous Coated And 40% Paved, Add	10.82	
33 42 11 00-1171	LF 24" x 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	47.78	11.01
	For 1/2 Bituminous Coated And 40% Paved, Add	13.01	
33 42 11 00-1172	LF 28" x 20" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	53.64	11.86
	For 1/2 Bituminous Coated And 40% Paved, Add	14.99	
33 42 11 00-1173	LF 35" x 24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	69.90	15.25
	For 1/2 Bituminous Coated And 40% Paved, Add	19.04	
33 42 11 00-1174	LF 42" x 28" 16 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	91.55	19.66
	For 1/2 Bituminous Coated And 40% Paved, Add	24.56	
33 42 11 00-1175	14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch (33 42 11 00-1167)		
33 42 11 00-1176	LF 17" x 13" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	41.21	9.31
	For 1/2 Bituminous Coated And 40% Paved, Add	9.38	
33 42 11 00-1177	LF 21" x 15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	46.27	10.16
	For 1/2 Bituminous Coated And 40% Paved, Add	11.24	
33 42 11 00-1178	LF 24" x 18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	52.85	11.01
	For 1/2 Bituminous Coated And 40% Paved, Add	13.37	
33 42 11 00-1179	LF 28" x 20" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	59.51	11.86
	For 1/2 Bituminous Coated And 40% Paved, Add	15.42	
33 42 11 00-1180	LF 35" x 24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	77.21	15.25
	For 1/2 Bituminous Coated And 40% Paved, Add	19.52	
33 42 11 00-1181	LF 42" x 28" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	100.25	19.66
	For 1/2 Bituminous Coated And 40% Paved, Add	24.87	
33 42 11 00-1182	LF 49" x 33" 14 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	115.24	23.25
	For 1/2 Bituminous Coated And 40% Paved, Add	29.63	



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	Stormwater Utilities	33 40	33
	Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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33 42 11 00-1183	12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch <small>(33 42 11 00-1167)</small>		
33 42 11 00-1184	LF 21" x 15" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	55.45	10.16
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	10.29	
33 42 11 00-1185	LF 24" x 18" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	63.73	11.01
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	12.24	
33 42 11 00-1186	LF 28" x 20" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	71.83	11.86
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	14.05	
33 42 11 00-1187	LF 35" x 24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	92.60	15.25
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	17.72	
33 42 11 00-1188	LF 42" x 29" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	118.85	19.66
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	22.29	
33 42 11 00-1189	LF 49" x 33" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	136.92	23.25
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	26.41	
33 42 11 00-1190	LF 57" x 38" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	160.18	26.82
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	31.45	
33 42 11 00-1191	LF 64" x 43" 12 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	178.88	30.40
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	34.67	
33 42 11 00-1192	10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch <small>(33 42 11 00-1167)</small>		
33 42 11 00-1193	LF 42" x 29" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	135.54	19.66
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	23.45	
33 42 11 00-1194	LF 49" x 33" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	156.39	23.25
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	27.72	
33 42 11 00-1195	LF 57" x 38" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	182.26	26.82
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	32.73	
33 42 11 00-1196	LF 64" x 43" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	203.85	30.40
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	36.24	
33 42 11 00-1197	LF 71" x 47" 10 Gauge, 2-2/3" x 1/2" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	223.13	32.18
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	39.74	
33 42 11 00-1198	3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch <small>(33 42 11 00-1166)</small>		
33 42 11 00-1199	14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch <small>(33 42 11 00-1198)</small>		
33 42 11 00-1200	LF 60" x 46" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	172.61	30.40
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	52.07	
33 42 11 00-1201	LF 66" x 51" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	188.61	32.18
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	56.98	
33 42 11 00-1202	LF 73" x 55" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	233.30	39.34
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	71.57	
33 42 11 00-1203	LF 81" x 59" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	281.31	57.22
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	76.72	
33 42 11 00-1204	LF 87" x 63" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	304.54	62.59
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	82.15	
33 42 11 00-1205	LF 95" x 67" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	325.36	67.05
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	87.59	
33 42 11 00-1206	LF 103" x 71" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	346.11	71.52
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	93.00	
33 42 11 00-1207	LF 112" x 75" 14 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	367.55	76.00
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	98.43	
33 42 11 00-1208	12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch <small>(33 42 11 00-1198)</small>		
33 42 11 00-1209	LF 66" x 51" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	225.68	32.18
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	64.76	
33 42 11 00-1210	LF 73" x 55" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	274.40	39.34
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	79.15	
33 42 11 00-1211	LF 81" x 59" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	326.06	57.22
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	85.12	
33 42 11 00-1212	LF 87" x 63" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	352.86	62.59
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	91.30	
33 42 11 00-1213	LF 95" x 67" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	377.33	67.05
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	97.53	
33 42 11 00-1214	LF 103" x 71" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	401.75	71.52
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	103.74	
33 42 11 00-1215	LF 112" x 75" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	426.75	76.00
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	109.92	
33 42 11 00-1216	LF 117" x 79" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	454.37	80.47
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	116.16	
33 42 11 00-1217	LF 128" x 83" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	483.96	89.41
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	122.37	
33 42 11 00-1218	LF 137" x 87" 12 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	514.75	98.34
	<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	129.19	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**
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33 42 11 00-1219			10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch <small>(33 42 11 00-1196)</small>		
33 42 11 00-1220	LF		81" x 59" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	367.61	57.22
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	92.14	
33 42 11 00-1221	LF		87" x 63" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	397.87	62.59
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	98.99	
33 42 11 00-1222	LF		95" x 67" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	425.74	67.05
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	105.86	
33 42 11 00-1223	LF		103" x 71" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	453.50	71.52
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	112.69	
33 42 11 00-1224	LF		112" x 75" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	484.23	76.00
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	120.37	
33 42 11 00-1225	LF		112" x 75" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	512.95	80.47
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	126.41	
33 42 11 00-1226	LF		128" x 83" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	545.97	89.41
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	133.28	
33 42 11 00-1227	LF		137" x 87" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	579.85	98.34
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	140.58	
33 42 11 00-1228	LF		142" x 91" 10 Gauge, 3" x 1" Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	616.68	107.29
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	149.37	
33 42 11 00-1229			125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch <small>(33 42 11 00-1166)</small>		
33 42 11 00-1230			12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch <small>(33 42 11 00-1229)</small>		
33 42 11 00-1231	LF		81" x 59" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	330.26	57.22
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	83.77	
33 42 11 00-1232	LF		87" x 63" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	356.69	62.59
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	89.60	
33 42 11 00-1233	LF		95" x 67" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	380.53	67.05
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	95.36	
33 42 11 00-1234	LF		103" x 71" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	404.35	71.52
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	101.12	
33 42 11 00-1235	LF		112" x 75" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	428.91	76.00
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	106.92	
33 42 11 00-1236	LF		117" x 79" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	456.22	80.47
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	112.82	
33 42 11 00-1237	LF		128" x 83" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	485.49	89.41
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	118.69	
33 42 11 00-1238	LF		137" x 87" 12 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	518.24	98.34
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	126.03	
33 42 11 00-1239			10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch <small>(33 42 11 00-1229)</small>		
33 42 11 00-1240	LF		81" x 59" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	376.28	57.22
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	92.92	
33 42 11 00-1241	LF		87" x 63" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	406.40	62.59
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	99.56	
33 42 11 00-1242	LF		95" x 67" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	433.96	67.05
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	106.15	
33 42 11 00-1243	LF		103" x 71" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	461.63	71.52
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	112.78	
33 42 11 00-1244	LF		112" x 75" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	489.33	76.00
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	119.19	
33 42 11 00-1245	LF		117" x 79" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	520.86	80.47
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	126.08	
33 42 11 00-1246	LF		128" x 83" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	553.96	89.41
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	132.80	
33 42 11 00-1247	LF		137" x 87" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	590.48	98.34
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	140.86	
33 42 11 00-1248	LF		142" x 91" 10 Gauge, 125 mm x 25 mm Corrugation, Aluminized Type 2 Corrugated Steel Pipe-Arch.....	624.62	107.29
			<i>For 1/2 Bituminous Coated And 40% Paved, Add</i>	148.47	
33 42 11 00-1249			Spiral Lockseam Corrugated Aluminum Piping <small>(33 42 11 00-0477)</small>		
33 42 11 00-1250			1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Piping <small>(33 42 11 00-1249)</small>		
33 42 11 00-1251			18 Gauge, 1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Piping <small>(33 42 11 00-1250)</small>		
33 42 11 00-1252	LF		6" 18 Gauge, 1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	19.13	5.08
			<i>For Bituminous Coated Pipe, Add</i>	1.72	
33 42 11 00-1253	LF		8" 18 Gauge, 1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	24.50	6.35
			<i>For Bituminous Coated Pipe, Add</i>	2.34	
33 42 11 00-1254	LF		10" 18 Gauge, 1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	31.68	7.62
			<i>For Bituminous Coated Pipe, Add</i>	3.08	



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33 42 11 00-1255 16 Gauge, 1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Piping ^(33 42 11 00-1250)		
33 42 11 00-1256 LF 6" 16 Gauge, 1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	21.10	5.08
For Bituminous Coated Pipe, Add	1.71	
33 42 11 00-1257 LF 8" 16 Gauge, 1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	27.29	6.35
For Bituminous Coated Pipe, Add	2.34	
33 42 11 00-1258 LF 10" 16 Gauge, 1-1/2" x 1/4" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	35.41	7.62
For Bituminous Coated Pipe, Add	3.08	
33 42 11 00-1259 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Piping ^(33 42 11 00-1249)		
33 42 11 00-1260 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Piping ^(33 42 11 00-1259)		
33 42 11 00-1261 LF 12" 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	36.78	8.89
For Bituminous Coated Pipe, Add	3.39	
33 42 11 00-1262 LF 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	42.11	9.31
For Bituminous Coated Pipe, Add	4.25	
33 42 11 00-1263 LF 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	47.76	10.16
For Bituminous Coated Pipe, Add	5.17	
33 42 11 00-1264 LF 21" 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	54.73	11.01
For Bituminous Coated Pipe, Add	6.17	
33 42 11 00-1265 LF 24" 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	61.03	11.86
For Bituminous Coated Pipe, Add	6.99	
33 42 11 00-1266 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Piping ^(33 42 11 00-1259)		
33 42 11 00-1267 LF 12" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	41.02	8.89
For Bituminous Coated Pipe, Add	3.31	
33 42 11 00-1268 LF 15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	47.51	9.31
For Bituminous Coated Pipe, Add	4.17	
33 42 11 00-1269 LF 18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	54.23	10.16
For Bituminous Coated Pipe, Add	5.06	
33 42 11 00-1270 LF 21" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	62.23	11.01
For Bituminous Coated Pipe, Add	6.00	
33 42 11 00-1271 LF 24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	69.64	11.86
For Bituminous Coated Pipe, Add	6.82	
33 42 11 00-1272 LF 30" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	90.75	15.25
For Bituminous Coated Pipe, Add	8.74	
33 42 11 00-1273 LF 36" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	115.69	19.66
For Bituminous Coated Pipe, Add	10.87	
33 42 11 00-1274 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Piping ^(33 42 11 00-1259)		
33 42 11 00-1275 LF 24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	86.09	11.86
For Bituminous Coated Pipe, Add	6.47	
33 42 11 00-1276 LF 30" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	111.23	15.25
For Bituminous Coated Pipe, Add	8.24	
33 42 11 00-1277 LF 36" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	140.29	19.66
For Bituminous Coated Pipe, Add	10.15	
33 42 11 00-1278 LF 42" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	161.44	23.25
For Bituminous Coated Pipe, Add	11.94	
33 42 11 00-1279 LF 48" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	182.56	26.82
For Bituminous Coated Pipe, Add	13.51	
33 42 11 00-1280 LF 54" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	214.57	30.40
For Bituminous Coated Pipe, Add	16.03	
33 42 11 00-1281 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Piping ^(33 42 11 00-1259)		
33 42 11 00-1282 LF 36" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	166.51	19.66
For Bituminous Coated Pipe, Add	9.98	
33 42 11 00-1283 LF 42" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	191.98	23.25
For Bituminous Coated Pipe, Add	11.72	
33 42 11 00-1284 LF 48" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	217.57	26.82
For Bituminous Coated Pipe, Add	13.30	
33 42 11 00-1285 LF 54" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	253.95	30.40
For Bituminous Coated Pipe, Add	15.60	
33 42 11 00-1286 LF 60" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	279.11	32.18
For Bituminous Coated Pipe, Add	17.19	
33 42 11 00-1287 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Piping ^(33 42 11 00-1249)		
33 42 11 00-1288 16 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Piping ^(33 42 11 00-1287)		
33 42 11 00-1289 LF 30" 16 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	89.41	15.25
33 42 11 00-1290 LF 36" 16 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	114.02	19.66

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	33 42 11 00-1291	LF	42" 16 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	130.24	23.25
	33 42 11 00-1292	LF	48" 16 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	147.46	26.82
	33 42 11 00-1293	LF	54" 16 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	173.91	30.40
33 42 11 00-1294			14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Piping <small>(33 42 11 00-1287)</small>		
	33 42 11 00-1295	LF	30" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	100.20	15.25
	33 42 11 00-1296	LF	36" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	129.41	19.66
	33 42 11 00-1297	LF	42" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	148.11	23.25
	33 42 11 00-1298	LF	48" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	166.96	26.82
	33 42 11 00-1299	LF	54" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	196.75	30.40
	33 42 11 00-1300	LF	60" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	215.09	32.18
	33 42 11 00-1301	LF	66" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	261.50	39.34
	33 42 11 00-1302	LF	72" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	311.46	57.22
	33 42 11 00-1303	LF	78" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	336.07	62.59
33 42 11 00-1304			12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Piping <small>(33 42 11 00-1287)</small>		
	33 42 11 00-1305	LF	30" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	125.39	15.25
	33 42 11 00-1306	LF	36" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	157.74	19.66
	33 42 11 00-1307	LF	42" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	181.96	23.25
	33 42 11 00-1308	LF	48" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	205.78	26.82
	33 42 11 00-1309	LF	54" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	240.33	30.40
	33 42 11 00-1310	LF	60" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	263.35	32.18
	33 42 11 00-1311	LF	66" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	314.42	39.34
	33 42 11 00-1312	LF	72" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	369.18	57.22
	33 42 11 00-1313	LF	78" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	398.51	62.59
	33 42 11 00-1314	LF	84" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	425.49	67.05
	33 42 11 00-1315	LF	90" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	452.38	71.52
	33 42 11 00-1316	LF	96" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	479.93	76.00
33 42 11 00-1317			10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Piping <small>(33 42 11 00-1287)</small>		
	33 42 11 00-1318	LF	60" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	314.11	32.18
	33 42 11 00-1319	LF	66" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	368.11	39.34
	33 42 11 00-1320	LF	72" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	427.69	57.22
	33 42 11 00-1321	LF	78" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	461.85	62.59
	33 42 11 00-1322	LF	84" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	493.57	67.05
	33 42 11 00-1323	LF	90" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	525.27	71.52
	33 42 11 00-1324	LF	96" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	557.60	76.00
	33 42 11 00-1325	LF	102" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	592.51	80.47
	33 42 11 00-1326	LF	108" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Corrugated Aluminum Pipe.....	629.40	89.41
33 42 11 00-1327			Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-1249)</small>		
			Note: Contech ULTRA FLO. HS 20 and HS 25 vehicular loading.		
33 42 11 00-1328			16 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-1327)</small>		
	33 42 11 00-1329	LF	18" 16 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	62.28	10.16
	33 42 11 00-1330	LF	21" 16 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	66.99	11.01
	33 42 11 00-1331	LF	24" 16 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	80.34	11.86
	33 42 11 00-1332	LF	27" 16 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	92.76	13.55
	33 42 11 00-1333	LF	30" 16 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	104.19	15.25
	33 42 11 00-1334	LF	33" 16 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	115.87	16.94
33 42 11 00-1335			14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-1327)</small>		
	33 42 11 00-1336	LF	18" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	71.41	10.16
	33 42 11 00-1337	LF	21" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	82.29	11.01
	33 42 11 00-1338	LF	24" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	92.61	11.86
	33 42 11 00-1339	LF	27" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	106.53	13.55
	33 42 11 00-1340	LF	30" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	119.47	15.25
	33 42 11 00-1341	LF	33" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	132.71	16.94
	33 42 11 00-1342	LF	36" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	150.36	19.66
	33 42 11 00-1343	LF	42" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	173.17	23.25
	33 42 11 00-1344	LF	48" 14 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	195.92	26.82
33 42 11 00-1345			12 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Piping <small>(33 42 11 00-1327)</small>		
	33 42 11 00-1346	LF	30" 12 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	149.34	15.25
	33 42 11 00-1347	LF	33" 12 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	165.50	16.94
	33 42 11 00-1348	LF	36" 12 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe.....	186.18	19.66



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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-1349 LF 42" 12 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	215.00	23.25
33 42 11 00-1350 LF 48" 12 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	243.73	26.82
33 42 11 00-1351 LF 54" 12 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	335.29	30.40
33 42 11 00-1352 LF 60" 12 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	368.91	32.18
33 42 11 00-1353 10 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Piping (33 42 11 00-1327)		
33 42 11 00-1354 LF 48" 10 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	341.14	26.82
33 42 11 00-1355 LF 54" 10 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	395.35	30.40
33 42 11 00-1356 LF 60" 10 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	435.71	32.18
33 42 11 00-1357 LF 66" 10 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	506.59	39.34
33 42 11 00-1358 LF 72" 10 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	577.68	57.22
33 42 11 00-1359 LF 78" 10 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	623.89	62.59
33 42 11 00-1360 LF 84" 10 Gauge, Exterior Box Corrugation, Aluminized Type 2 Corrugated Steel Pipe	667.29	67.05
33 42 11 00-1361 Spiral Lockseam Aluminum Pipe-Arch (33 42 11 00-0477)		
33 42 11 00-1362 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch (33 42 11 00-1361)		
33 42 11 00-1363 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch (33 42 11 00-1362)		
33 42 11 00-1364 LF 17" x 13" 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	44.04	9.31
<i>For Bituminous Coated Pipe, Add</i>	4.26	
33 42 11 00-1365 LF 21" x 15" 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	49.58	10.16
<i>For Bituminous Coated Pipe, Add</i>	5.09	
33 42 11 00-1366 LF 24" x 18" 16 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	56.81	11.01
<i>For Bituminous Coated Pipe, Add</i>	6.06	
33 42 11 00-1367 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch (33 42 11 00-1362)		
33 42 11 00-1368 LF 17" x 13" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	49.45	9.31
<i>For Bituminous Coated Pipe, Add</i>	4.24	
33 42 11 00-1369 LF 21" x 15" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	54.77	10.16
<i>For Bituminous Coated Pipe, Add</i>	4.89	
33 42 11 00-1370 LF 24" x 18" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	64.31	11.01
<i>For Bituminous Coated Pipe, Add</i>	6.01	
33 42 11 00-1371 LF 28" x 20" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	72.46	11.86
<i>For Bituminous Coated Pipe, Add</i>	6.89	
33 42 11 00-1372 LF 35" x 24" 14 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	93.56	15.25
<i>For Bituminous Coated Pipe, Add</i>	8.72	
33 42 11 00-1373 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch (33 42 11 00-1362)		
33 42 11 00-1374 LF 28" x 20" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	88.92	11.86
<i>For Bituminous Coated Pipe, Add</i>	6.57	
33 42 11 00-1375 LF 35" x 24" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	114.09	15.25
<i>For Bituminous Coated Pipe, Add</i>	8.28	
33 42 11 00-1376 LF 42" x 29" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	145.12	19.66
<i>For Bituminous Coated Pipe, Add</i>	10.34	
33 42 11 00-1377 LF 49" x 33" 12 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	167.80	23.25
<i>For Bituminous Coated Pipe, Add</i>	12.23	
33 42 11 00-1378 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch (33 42 11 00-1362)		
33 42 11 00-1379 LF 42" x 29" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	171.31	19.66
<i>For Bituminous Coated Pipe, Add</i>	9.98	
33 42 11 00-1380 LF 49" x 33" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	198.40	23.25
<i>For Bituminous Coated Pipe, Add</i>	11.77	
33 42 11 00-1381 LF 57" x 38" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	230.45	26.82
<i>For Bituminous Coated Pipe, Add</i>	13.79	
33 42 11 00-1382 LF 64" x 43" 10 Gauge, 2-2/3" x 1/2" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	258.18	30.40
<i>For Bituminous Coated Pipe, Add</i>	15.34	
33 42 11 00-1383 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch (33 42 11 00-1361)		
33 42 11 00-1384 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch (33 42 11 00-1383)		
33 42 11 00-1385 LF 60" x 46" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	200.98	30.40
33 42 11 00-1386 LF 66" x 51" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	220.01	32.18
33 42 11 00-1387 LF 73" x 55" 14 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	267.58	39.34
33 42 11 00-1388 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch (33 42 11 00-1383)		
33 42 11 00-1389 LF 60" x 46" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	244.56	30.40
33 42 11 00-1390 LF 66" x 51" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	268.27	32.18
33 42 11 00-1391 LF 73" x 55" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	320.29	39.34
33 42 11 00-1392 LF 81" x 59" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	375.49	57.22
33 42 11 00-1393 LF 87" x 63" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	405.27	62.59

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-1394	LF	95" x 67" 12 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	432.69	67.05
33 42 11 00-1395		10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch ^(33 42 11 00-1383)		
33 42 11 00-1396	LF	66" x 51" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	318.95	32.18
33 42 11 00-1397	LF	73" x 55" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	373.76	39.34
33 42 11 00-1398	LF	81" x 59" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	433.77	57.22
33 42 11 00-1399	LF	87" x 63" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	468.38	62.59
33 42 11 00-1400	LF	95" x 67" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	500.54	67.05
33 42 11 00-1401	LF	103" x 71" 10 Gauge, 3" x 1" Corrugation, Spiral Lockseam Aluminum Pipe-Arch	532.68	71.52
33 42 11 00-1402		Corrugated Steel Pipe Fittings ^(33 42 11 00-0477)		
		Note: Equivalent pipe-arch sizes are approximate.		
33 42 11 00-1403		Fabricate 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fittings ^(33 42 11 00-1402)		
		Note: Excludes material. Use appropriate size, gauge, corrugation and type of material from pipe sections for the listed requirements of pipe needed.		
33 42 11 00-1404	EA	Fabricate 6" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 2' Of Appropriate Pipe).....	74.09	
33 42 11 00-1405	EA	Fabricate 8" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 2' Of Appropriate Pipe).....	92.90	
33 42 11 00-1406	EA	Fabricate 10" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 2' Of Appropriate Pipe).....	111.72	
33 42 11 00-1407	EA	Fabricate 12" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe).....	131.73	
33 42 11 00-1408	EA	Fabricate 15" (Or 17" x 13" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe).....	159.94	
33 42 11 00-1409	EA	Fabricate 18" (Or 21" x 15" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe).....	188.15	
33 42 11 00-1410	EA	Fabricate 21" (Or 24" x 18" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe).....	216.39	
33 42 11 00-1411	EA	Fabricate 24" (Or 28" x 20" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe).....	244.59	
33 42 11 00-1412	EA	Fabricate 30" (Or 35" x 24" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	318.70	
33 42 11 00-1413	EA	Fabricate 36" (Or 42" x 29" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	379.84	
33 42 11 00-1414	EA	Fabricate 42" (Or 49" x 33" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	440.99	
33 42 11 00-1415	EA	Fabricate 48" (Or 57" x 38" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	570.35	
33 42 11 00-1416	EA	Fabricate 54" (Or 64" x 43" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 8' Of Appropriate Pipe).....	643.27	
33 42 11 00-1417	EA	Fabricate 60" (Or 71" x 47" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 8' Of Appropriate Pipe).....	718.53	
33 42 11 00-1418	EA	Fabricate 66" (Or 77" x 52" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 8' Of Appropriate Pipe).....	796.15	
33 42 11 00-1419	EA	Fabricate 72" (Or 83" x 57" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 10' Of Appropriate Pipe).....	970.20	
33 42 11 00-1420	EA	Fabricate 78" (Or 87" x 63" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 10' Of Appropriate Pipe).....	1,058.38	
33 42 11 00-1421	EA	Fabricate 84" (Or 95" x 67" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 10' Of Appropriate Pipe).....	1,148.94	
33 42 11 00-1422	EA	Fabricate 90" (Or 103" x 71" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe).....	1,410.01	
33 42 11 00-1423	EA	Fabricate 96" (Or 112" x 75" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe).....	1,513.51	
33 42 11 00-1424	EA	Fabricate 102" (Or 117" x 79" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe).....	1,618.17	
33 42 11 00-1425	EA	Fabricate 108" (Or 128" x 83" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 14' Of Appropriate Pipe).....	1,722.82	
33 42 11 00-1426	EA	Fabricate 114" (Or 137" x 87" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 14' Of Appropriate Pipe).....	1,826.31	
33 42 11 00-1427	EA	Fabricate 120" (Or 142" x 91" Pipe-Arch) 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 14' Of Appropriate Pipe).....	1,930.97	
33 42 11 00-1428	EA	Fabricate 126" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 16' Of Appropriate Pipe).....	2,041.32	
33 42 11 00-1429	EA	Fabricate 132" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 16' Of Appropriate Pipe).....	2,157.99	
33 42 11 00-1430	EA	Fabricate 138" 2-Piece Single Miter Elbow, Corrugated Steel Pipe Fitting (Requires 16' Of Appropriate Pipe).....	2,281.28	
33 42 11 00-1431		Fabricate Corrugated Steel Pipe Tees Or Laterals ^(33 42 11 00-1402)		
		Note: Fabrication charge excludes material. Use appropriate size, gauge, corrugation and type of material from pipe sections for the listed requirements of pipe needed.		
33 42 11 00-1432	EA	Fabricate 6" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 3' Of Appropriate Pipe).....	96.43	
33 42 11 00-1433	EA	Fabricate 8" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 3' Of Appropriate Pipe).....	123.48	
33 42 11 00-1434	EA	Fabricate 10" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 3' Of Appropriate Pipe).....	150.51	
33 42 11 00-1435	EA	Fabricate 12" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 3' Of Appropriate Pipe).....	177.58	
33 42 11 00-1436	EA	Fabricate 15" (Or 17" x 13" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 4' Of Appropriate Pipe).....	216.39	
33 42 11 00-1437	EA	Fabricate 18" (Or 21" x 15" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	256.35	
33 42 11 00-1438	EA	Fabricate 21" (Or 24" x 18" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	296.36	
33 42 11 00-1439	EA	Fabricate 24" (Or 28" x 20" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 6' Of Appropriate Pipe).....	336.31	



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Stormwater Utilities	33 40	
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MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-1440	EA	Fabricate 30" (Or 35" x 24" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 8' Of Appropriate Pipe)	440.99	
33 42 11 00-1441	EA	Fabricate 36" (Or 42" x 29" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 9' Of Appropriate Pipe)	525.67	
33 42 11 00-1442	EA	Fabricate 42" (Or 49" x 33" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 9' Of Appropriate Pipe)	611.51	
33 42 11 00-1443	EA	Fabricate 48" (Or 57" x 38" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 9' Of Appropriate Pipe)	793.78	
33 42 11 00-1444	EA	Fabricate 54" (Or 64" x 43" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe)	893.74	
33 42 11 00-1445	EA	Fabricate 60" (Or 71" x 47" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe)	997.23	
33 42 11 00-1446	EA	Fabricate 66" (Or 77" x 52" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 12' Of Appropriate Pipe)	1,103.07	
33 42 11 00-1447	EA	Fabricate 72" (Or 83" x 57" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 14' Of Appropriate Pipe)	1,345.31	
33 42 11 00-1448	EA	Fabricate 78" (Or 87" x 63" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 16' Of Appropriate Pipe)	1,465.29	
33 42 11 00-1449	EA	Fabricate 84" (Or 95" x 67" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 16' Of Appropriate Pipe)	1,587.58	
33 42 11 00-1450	EA	Fabricate 90" (Or 103" x 71" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 18' Of Appropriate Pipe)	1,953.30	
33 42 11 00-1451	EA	Fabricate 96" (Or 112" x 75" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 18' Of Appropriate Pipe)	2,093.25	
33 42 11 00-1452	EA	Fabricate 102" (Or 117" x 79" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 20' Of Appropriate Pipe)	2,233.19	
33 42 11 00-1453	EA	Fabricate 108" (Or 128" x 83" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 20' Of Appropriate Pipe)	2,374.29	
33 42 11 00-1454	EA	Fabricate 114" (Or 137" x 87" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 21' Of Appropriate Pipe)	2,515.43	
33 42 11 00-1455	EA	Fabricate 120" (Or 142" x 91" Pipe-Arch) Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 21' Of Appropriate Pipe)	2,655.34	
33 42 11 00-1456	EA	Fabricate 126" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 23' Of Appropriate Pipe)	2,803.07	
33 42 11 00-1457	EA	Fabricate 132" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 24' Of Appropriate Pipe)	2,959.02	
33 42 11 00-1458	EA	Fabricate 138" Tee Or Lateral, Corrugated Steel Pipe Fitting (Requires 24' Of Appropriate Pipe)	3,123.60	
33 42 11 00-1459		Fabricate Skew Or Bevel Ends, Corrugated Steel Pipe Fitting <small>(33 42 11 00-1402)</small>		
		Note: Applied to pipe tasks.		
33 42 11 00-1460	EA	Fabricate 6" Skew Or Bevel End, Corrugated Steel Pipe Fitting	37.52	
33 42 11 00-1461	EA	Fabricate 8" Skew Or Bevel End, Corrugated Steel Pipe Fitting	47.20	
33 42 11 00-1462	EA	Fabricate 10" Skew Or Bevel End, Corrugated Steel Pipe Fitting	59.36	
33 42 11 00-1463	EA	Fabricate 12" Skew Or Bevel End, Corrugated Steel Pipe Fitting	72.69	
33 42 11 00-1464	EA	Fabricate 15" (Or 17" x 13" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	91.98	
33 42 11 00-1465	EA	Fabricate 18" (Or 21" x 15" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	112.63	
33 42 11 00-1466	EA	Fabricate 21" (Or 24" x 18" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	131.92	
33 42 11 00-1467	EA	Fabricate 24" (Or 28" x 20" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	153.28	
33 42 11 00-1468	EA	Fabricate 30" (Or 35" x 24" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	188.26	
33 42 11 00-1469	EA	Fabricate 36" (Or 42" x 29" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	224.46	
33 42 11 00-1470	EA	Fabricate 42" (Or 49" x 33" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	267.82	
33 42 11 00-1471	EA	Fabricate 48" (Or 57" x 38" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	329.45	
33 42 11 00-1472	EA	Fabricate 54" (Or 64" x 43" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	372.90	
33 42 11 00-1473	EA	Fabricate 60" (Or 71" x 47" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	419.94	
33 42 11 00-1474	EA	Fabricate 66" (Or 77" x 52" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	509.27	
33 42 11 00-1475	EA	Fabricate 72" (Or 83" x 57" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	564.76	
33 42 11 00-1476	EA	Fabricate 78" (Or 87" x 63" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	689.06	
33 42 11 00-1477	EA	Fabricate 84" (Or 95" x 67" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	750.63	
33 42 11 00-1478	EA	Fabricate 90" (Or 103" x 71" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	815.82	
33 42 11 00-1479	EA	Fabricate 96" (Or 112" x 75" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	879.73	
33 42 11 00-1480	EA	Fabricate 102" (Or 117" x 79" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	944.91	
33 42 11 00-1481	EA	Fabricate 108" (Or 128" x 83" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	1,011.27	
33 42 11 00-1482	EA	Fabricate 114" (Or 137" x 87" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	1,076.46	
33 42 11 00-1483	EA	Fabricate 120" (Or 142" x 91" Pipe-Arch) Skew Or Bevel End, Corrugated Steel Pipe Fitting	1,141.60	
33 42 11 00-1484	EA	Fabricate 126" Skew Or Bevel End, Corrugated Steel Pipe Fitting	1,210.70	
33 42 11 00-1485	EA	Fabricate 132" Skew Or Bevel End, Corrugated Steel Pipe Fitting	1,283.97	
33 42 11 00-1486	EA	Fabricate 138" Skew Or Bevel End, Corrugated Steel Pipe Fitting	1,361.68	
33 42 11 00-1487		Coupling Bands, Corrugated Metal Pipe Fitting <small>(33 42 11 00-1402)</small>		
33 42 11 00-1488	EA	6" Coupling Band, Corrugated Metal Pipe Fitting	9.86	
		<i>For Bituminous Coated, Add</i>	2.86	
33 42 11 00-1489	EA	8" Coupling Band, Corrugated Metal Pipe Fitting	13.09	
		<i>For Bituminous Coated, Add</i>	3.80	
33 42 11 00-1490	EA	10" Coupling Band, Corrugated Metal Pipe Fitting	16.49	
		<i>For Bituminous Coated, Add</i>	4.78	
33 42 11 00-1491	EA	12" Coupling Band, Corrugated Metal Pipe Fitting	27.38	
		<i>For Bituminous Coated, Add</i>	7.94	
33 42 11 00-1492	EA	15" Coupling Band, Corrugated Metal Pipe Fitting	34.52	
		<i>For Bituminous Coated, Add</i>	10.01	
33 42 11 00-1493	EA	18" Coupling Band, Corrugated Metal Pipe Fitting	50.65	
		<i>For Bituminous Coated, Add</i>	14.69	
33 42 11 00-1494	EA	21" Coupling Band, Corrugated Metal Pipe Fitting	60.11	
		<i>For Bituminous Coated, Add</i>	17.43	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 11 00-1495 EA 24" Coupling Band, Corrugated Metal Pipe Fitting.....	68.16	
For Bituminous Coated, Add	19.77	
33 42 11 00-1496 EA 30" Coupling Band, Corrugated Metal Pipe Fitting.....	117.96	
For Bituminous Coated, Add	34.21	
33 42 11 00-1497 EA 36" Coupling Band, Corrugated Metal Pipe Fitting.....	188.72	
For Bituminous Coated, Add	45.29	
33 42 11 00-1498 EA 42" Coupling Band, Corrugated Metal Pipe Fitting.....	221.74	
For Bituminous Coated, Add	53.22	
33 42 11 00-1499 EA 48" Coupling Band, Corrugated Metal Pipe Fitting.....	248.47	
For Bituminous Coated, Add	59.63	
33 42 11 00-1500 EA 54" Coupling Band, Corrugated Metal Pipe Fitting.....	352.36	
For Bituminous Coated, Add	84.57	
33 42 11 00-1501 EA 60" Coupling Band, Corrugated Metal Pipe Fitting.....	503.99	
For Bituminous Coated, Add	90.72	
33 42 11 00-1502 EA 66" Coupling Band, Corrugated Metal Pipe Fitting.....	619.39	
For Bituminous Coated, Add	111.49	
33 42 11 00-1503 EA 72" Coupling Band, Corrugated Metal Pipe Fitting.....	795.65	
For Bituminous Coated, Add	111.39	
33 42 11 00-1504 EA 78" Coupling Band, Corrugated Metal Pipe Fitting.....	851.00	
For Bituminous Coated, Add	119.14	
33 42 11 00-1505 EA 84" Coupling Band, Corrugated Metal Pipe Fitting.....	906.66	
For Bituminous Coated, Add	126.93	
33 42 11 00-1506 EA 90" Coupling Band, Corrugated Metal Pipe Fitting.....	962.04	
For Bituminous Coated, Add	134.69	
33 42 11 00-1507 EA 96" Coupling Band, Corrugated Metal Pipe Fitting.....	1,017.56	
For Bituminous Coated, Add	142.46	
33 42 11 00-1508 EA 102" Coupling Band, Corrugated Metal Pipe Fitting.....	1,073.22	
For Bituminous Coated, Add	150.25	
33 42 11 00-1509 EA 108" Coupling Band, Corrugated Metal Pipe Fitting.....	1,128.62	
For Bituminous Coated, Add	158.01	
33 42 11 00-1510 EA 114" Coupling Band, Corrugated Metal Pipe Fitting.....	1,336.73	
For Bituminous Coated, Add	160.41	
33 42 11 00-1511 EA 120" Coupling Band, Corrugated Metal Pipe Fitting.....	1,239.35	
For Bituminous Coated, Add	148.72	
33 42 11 00-1512 EA 126" Coupling Band, Corrugated Metal Pipe Fitting.....	1,294.59	
For Bituminous Coated, Add	155.35	
33 42 11 00-1513 EA 132" Coupling Band, Corrugated Metal Pipe Fitting.....	1,350.22	
For Bituminous Coated, Add	162.03	
33 42 11 00-1514 EA 138" Coupling Band, Corrugated Metal Pipe Fitting.....	1,405.91	
For Bituminous Coated, Add	168.71	

33 42 13 Stormwater Culverts (33 42)**33 42 13 13 Precast Concrete Stormwater Culverts (33 42 13)****33 42 13 13-0001 Precast Reinforced Concrete Box Culvert (33 42 13 13)**

Note: The quantity required shall be the entire length of the culvert including the length of the cut-off sections. Includes delivery, handling, hoisting into place, alignment, bracing, permanent connections, grouting of joints and caulking of joints. Excludes crane, excavation and backfill. Minimum length 6'-0". See CSI section 01 22 23 00-0840 for crane lifting equipment.

33 42 13 13-0002 LF 3' x 3' Precast Reinforced Concrete Box Culvert.....	521.34	44.70
For Each LF Of Cut-Off Section, Add	20.85	
33 42 13 13-0003 LF 4' x 2' Precast Reinforced Concrete Box Culvert.....	593.59	44.70
For Each LF Of Cut-Off Section, Add	23.74	
33 42 13 13-0004 LF 4' x 3' Precast Reinforced Concrete Box Culvert.....	710.31	44.70
For Each LF Of Cut-Off Section, Add	28.41	
33 42 13 13-0005 LF 5' x 3' Precast Reinforced Concrete Box Culvert.....	850.37	55.88
For Each LF Of Cut-Off Section, Add	34.01	
33 42 13 13-0006 LF 5' x 4' Precast Reinforced Concrete Box Culvert.....	872.60	55.88
For Each LF Of Cut-Off Section, Add	34.90	
33 42 13 13-0007 LF 5' x 5' Precast Reinforced Concrete Box Culvert.....	883.71	55.88
For Each LF Of Cut-Off Section, Add	35.35	
33 42 13 13-0008 LF 6' x 3' Precast Reinforced Concrete Box Culvert.....	910.62	58.11
For Each LF Of Cut-Off Section, Add	36.42	
33 42 13 13-0009 LF 6' x 4' Precast Reinforced Concrete Box Culvert.....	916.17	58.11
For Each LF Of Cut-Off Section, Add	36.65	
33 42 13 13-0010 LF 6' x 6' Precast Reinforced Concrete Box Culvert.....	1,016.22	58.11
For Each LF Of Cut-Off Section, Add	40.65	
33 42 13 13-0011 LF 7' x 4' Precast Reinforced Concrete Box Culvert.....	1,034.88	67.05
For Each LF Of Cut-Off Section, Add	41.40	
33 42 13 13-0012 LF 7' x 6' Precast Reinforced Concrete Box Culvert.....	1,085.30	91.20
For Each LF Of Cut-Off Section, Add	43.41	
33 42 13 13-0013 LF 8' x 2' Precast Reinforced Concrete Box Culvert.....	1,021.78	58.11
For Each LF Of Cut-Off Section, Add	40.87	
33 42 13 13-0014 LF 8' x 3' Precast Reinforced Concrete Box Culvert.....	1,040.44	67.05
For Each LF Of Cut-Off Section, Add	41.62	
33 42 13 13-0015 LF 8' x 4' Precast Reinforced Concrete Box Culvert.....	1,057.11	67.05
For Each LF Of Cut-Off Section, Add	42.28	
33 42 13 13-0016 LF 8' x 5' Precast Reinforced Concrete Box Culvert.....	1,266.09	89.41
For Each LF Of Cut-Off Section, Add	50.64	
33 42 13 13-0017 LF 8' x 6' Precast Reinforced Concrete Box Culvert.....	1,270.54	89.41
For Each LF Of Cut-Off Section, Add	50.82	
33 42 13 13-0018 LF 8' x 8' Precast Reinforced Concrete Box Culvert.....	1,391.70	111.75
For Each LF Of Cut-Off Section, Add	55.67	



Utilities	33	CS
Stormwater Utilities	33 40	
Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 13 13-0019 LF 9' x 4' Precast Reinforced Concrete Box Culvert <i>For Each LF Of Cut-Off Section, Add</i>	1,409.49 56.38	89.41
33 42 13 13-0020 LF 9' x 6' Precast Reinforced Concrete Box Culvert <i>For Each LF Of Cut-Off Section, Add</i>	1,472.84 58.91	111.75
33 42 13 13-0021 LF 10' x 3' Precast Reinforced Concrete Box Culvert <i>For Each LF Of Cut-Off Section, Add</i>	1,478.40 59.14	111.75
33 42 13 13-0022 LF 10' x 4' Precast Reinforced Concrete Box Culvert <i>For Each LF Of Cut-Off Section, Add</i>	1,823.00 72.92	111.75
33 42 13 13-0023 LF 10' x 5' Precast Reinforced Concrete Box Culvert <i>For Each LF Of Cut-Off Section, Add</i>	1,891.91 75.68	134.11
33 42 13 13-0024 LF 10' x 6' Precast Reinforced Concrete Box Culvert <i>For Each LF Of Cut-Off Section, Add</i>	1,914.14 76.57	134.11
33 42 13 13-0025 LF 10' x 7' Precast Reinforced Concrete Box Culvert <i>For Each LF Of Cut-Off Section, Add</i>	1,919.70 76.79	134.11
33 42 13 13-0026 LF 10' x 8' Precast Reinforced Concrete Box Culvert <i>For Each LF Of Cut-Off Section, Add</i>	1,927.48 77.10	134.11
33 42 13 13-0027 LF 12' x 3' Precast Reinforced Concrete Box Culvert <i>For Each LF Of Cut-Off Section, Add</i>	1,983.06 79.32	156.46
33 42 13 13-0028 LF 12' x 4' Precast Reinforced Concrete Box Culvert <i>For Each LF Of Cut-Off Section, Add</i>	1,983.06 79.32	156.46
33 42 13 13-0029 LF 12' x 6' Precast Reinforced Concrete Box Culvert <i>For Each LF Of Cut-Off Section, Add</i>	1,983.06 79.32	156.46
33 42 13 13-0030 LF 12' x 8' Precast Reinforced Concrete Box Culvert <i>For Each LF Of Cut-Off Section, Add</i>	1,983.06 79.32	156.46
33 42 13 13-0031 LF 16' x 10' Precast Reinforced Concrete Box Culvert <i>For Each LF Of Cut-Off Section, Add</i>	2,941.26 117.65	178.81
33 42 13 13-0032 LF 24' x 10' Precast Reinforced Concrete Box Culvert <i>For Each LF Of Cut-Off Section, Add</i>	4,164.02 166.56	178.81
33 42 13 13-0033 Precast Reinforced Concrete Box Culvert For Roadways (33 42 13 13) Note: AASHTO HL-93 Rated. The quantity required shall be the entire length of the culvert including the length of the cut-off sections. Includes delivery, handling, hoisting into place, alignment, bracing, permanent connections, grouting of joints and caulking of joints. Excludes crane, excavation and backfill. Minimum length 6'-0". See CSI section 01 22 23 00-0840 for crane lifting equipment.		
33 42 13 13-0034 LF 3' x 3' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	1,372.27 54.89	44.70
33 42 13 13-0035 LF 4' x 2' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	1,479.03 59.16	44.70
33 42 13 13-0036 LF 4' x 3' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	1,668.00 66.72	44.70
33 42 13 13-0037 LF 5' x 3' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	1,880.25 75.21	55.88
33 42 13 13-0038 LF 5' x 4' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	2,069.21 82.77	55.88
33 42 13 13-0039 LF 5' x 5' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	2,258.17 90.33	55.88
33 42 13 13-0040 LF 6' x 3' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	2,073.88 82.96	58.11
33 42 13 13-0041 LF 6' x 4' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	2,262.84 90.51	58.11
33 42 13 13-0042 LF 6' x 6' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	2,640.77 105.63	58.11
33 42 13 13-0043 LF 7' x 4' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	2,470.46 98.82	67.05
33 42 13 13-0044 LF 7' x 6' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	2,898.76 115.95	91.20
33 42 13 13-0045 LF 8' x 2' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	2,262.84 90.51	58.11
33 42 13 13-0046 LF 8' x 3' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	2,470.46 98.82	67.05
33 42 13 13-0047 LF 8' x 4' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	2,659.43 106.38	67.05
33 42 13 13-0048 LF 8' x 4' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	2,895.03 115.80	89.41
33 42 13 13-0049 LF 8' x 6' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	3,083.99 123.36	89.41
33 42 13 13-0050 LF 8' x 8' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	3,508.59 140.34	111.75
33 42 13 13-0051 LF 9' x 4' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	3,114.92 124.60	89.41
33 42 13 13-0052 LF 9' x 6' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	3,565.46 142.62	111.75
33 42 13 13-0053 LF 10' x 3' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	3,524.35 140.97	111.75
33 42 13 13-0054 LF 10' x 4' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	3,748.72 149.95	111.75
33 42 13 13-0055 LF 10' x 5' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	4,019.77 160.79	134.11
33 42 13 13-0056 LF 10' x 6' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	4,244.14 169.77	134.11
33 42 13 13-0057 LF 10' x 7' Precast Reinforced Concrete Box Culvert For Roadways <i>For Each LF Of Cut-Off Section, Add</i>	4,468.55 178.74	134.11

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 13 13-0058 LF 10' x 8' Precast Reinforced Concrete Box Culvert For Roadways..... <i>For Each LF Of Cut-Off Section, Add</i>	4,692.93 187.72	134.11
33 42 13 13-0059 LF 12' x 3' Precast Reinforced Concrete Box Culvert For Roadways..... <i>For Each LF Of Cut-Off Section, Add</i>	4,663.26 186.53	156.46
33 42 13 13-0060 LF 12' x 4' Precast Reinforced Concrete Box Culvert For Roadways..... <i>For Each LF Of Cut-Off Section, Add</i>	4,918.31 196.73	156.46
33 42 13 13-0061 LF 12' x 6' Precast Reinforced Concrete Box Culvert For Roadways..... <i>For Each LF Of Cut-Off Section, Add</i>	5,428.49 217.14	156.46
33 42 13 13-0062 LF 12' x 8' Precast Reinforced Concrete Box Culvert For Roadways..... <i>For Each LF Of Cut-Off Section, Add</i>	5,938.67 237.55	156.46
33 42 13 13-0063 LF 16' x 10' Precast Reinforced Concrete Box Culvert For Roadways..... <i>For Each LF Of Cut-Off Section, Add</i>	7,119.07 284.76	178.81
33 42 13 13-0064 LF 24' x 10' Precast Reinforced Concrete Box Culvert For Roadways..... <i>For Each LF Of Cut-Off Section, Add</i>	9,046.39 361.86	178.81
33 42 23 Headwalls and Endwalls for Stormwater Piping (33 42)		
33 42 23 00-0001 Headwalls (33 42 23) Note: Excludes excavation and backfill. Select pipe with closest opening area for square or round culverts.		
33 42 23 00-0002 Cast In Place Concrete Headwalls (33 42 23 00-0001) Note: Includes concrete, forms, rebar (where required), finish and curing.		
33 42 23 00-0003 Skewed Wingwall, Cast In Place Concrete Headwall (33 42 23 00-0002) Note: Sized by pipe diameter.		
33 42 23 00-0004 EA 12" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	1,089.22	558.42
33 42 23 00-0005 EA 15" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	1,377.60	595.65
33 42 23 00-0006 EA 18" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	1,788.63	780.21
33 42 23 00-0007 EA 24" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	2,752.51	1,116.83
33 42 23 00-0008 EA 30" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	3,805.38	1,489.10
33 42 23 00-0009 EA 36" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	4,839.62	1,962.81
33 42 23 00-0010 EA 42" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	6,761.44	2,707.44
33 42 23 00-0011 EA 48" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	8,030.04	3,190.91
33 42 23 00-0012 EA 54" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	9,672.66	3,884.67
33 42 23 00-0013 EA 60" Pipe, Skewed Wingwall, Cast In Place Concrete Headwall	11,639.90	4,702.43
33 42 23 00-0014 Precast Concrete Headwalls (33 42 23 00-0001)		
33 42 23 00-0015 EA 12" Pipe, Precast Concrete Headwall	534.45	152.42
33 42 23 00-0016 EA 15" Pipe, Precast Concrete Headwall	559.86	160.90
33 42 23 00-0017 EA 18" Pipe, Precast Concrete Headwall	619.11	182.91
33 42 23 00-0018 EA 24" Pipe, Precast Concrete Headwall	679.56	194.77
33 42 23 00-0019 EA 30" Pipe, Precast Concrete Headwall	870.54	228.64
33 42 23 00-0020 EA 36" Pipe, Precast Concrete Headwall	989.05	237.11
33 42 23 00-0021 EA 42" Pipe, Precast Concrete Headwall	1,263.78	275.91
33 42 23 00-0022 EA 48" Pipe, Precast Concrete Headwall	1,385.06	303.97
33 42 23 00-0023 EA 54" Pipe, Precast Concrete Headwall	1,520.13	321.86
33 42 23 00-0024 EA 60" Pipe, Precast Concrete Headwall	1,709.32	321.86
33 42 23 00-0025 EA 72" Pipe, Precast Concrete Headwall	2,016.20	402.33
33 42 23 00-0026 EA 84" Pipe, Precast Concrete Headwall	2,773.96	482.79
33 42 23 00-0027 Precast Concrete Wingwalls (33 42 23 00-0001)		
33 42 23 00-0028 EA 18" ID Pipe (26" Hole) Precast Concrete Wingwall	3,470.76	1,593.20
Note: 12" Thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.		
33 42 23 00-0029 EA 24" ID Pipe (32" Hole) Precast Concrete Wingwall	3,738.96	1,770.22
Note: 12" Thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.		
33 42 23 00-0030 EA 30" ID Pipe (42" Hole) Precast Concrete Wingwall	4,185.99	2,065.26
Note: 12" Thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.		
33 42 23 00-0031 EA 33" ID Pipe (46" Hole) Precast Concrete Wingwall	4,633.02	2,360.30
Note: 12" thick wall and base. Wingwalls are configured at zero degrees only off centerline of pipe.		
33 42 23 00-0032 EA 36" ID Pipe (50" Hole) Precast Concrete Wingwall	4,633.02	2,360.30
Note: 12" Thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.		
33 42 23 00-0033 EA 44" ID Pipe (58" Hole) Precast Concrete Wingwall	4,811.83	2,478.31
Note: 12" Thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.		
33 42 23 00-0034 EA 48" ID Pipe (62" Hole) Precast Concrete Wingwall	6,992.89	2,537.32
Note: 12" thick wall and base. Wingwalls are configured at 0-30 degrees off centerline of pipe.		
33 42 23 00-0035 EA 52" ID Pipe (66" Hole) Precast Concrete Wingwall	7,261.11	2,714.35
Note: 12" thick wall and base. Wingwalls are configured at zero degrees only off centerline of pipe.		
33 42 23 00-0036 Precast Concrete Transverse Drainage Interceptor (33 42 23 00-0001)		
33 42 23 00-0037 EA 34" x 48" x 28" Precast Concrete Transverse Drainage Interceptor With Frame And Grate	2,705.84	625.84
33 42 26 End Sections for Stormwater Piping (33 42)		
33 42 26 16 Corrugated Metal End Sections for Stormwater Piping (33 42 26)		
33 42 26 16-0001 Corrugated Metal Pipe End Sections (33 42 26 16)		
33 42 26 16-0002 Galvanized Corrugated Steel Pipe End Sections (33 42 26 16-0001)		



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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33 42 26 16-0003 Type 1 Galvanized Corrugated Steel Pipe End Sections (33 42 26 16-0002)
 Note: Used with annular corrugations, no band required. Consists of a 12 gauge steel strap with a 6" bolt and nut.

33 42 26 16-0004 EA 12" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe End Section.....	218.49	59.28
33 42 26 16-0005 EA 15" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe End Section.....	252.00	63.51
33 42 26 16-0006 EA 18" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe End Section.....	292.34	67.74
33 42 26 16-0007 EA 21" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe End Section.....	351.68	74.10
33 42 26 16-0008 EA 24" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe End Section.....	389.10	80.45

33 42 26 16-0009 Type 2 Galvanized Corrugated Steel Pipe End Sections (33 42 26 16-0002)
 Note: Partial circumferential rod with two hinge type lugs used with annular corrugations. No band required.

33 42 26 16-0010 EA 30" 14 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section.....	615.97	91.03
33 42 26 16-0011 EA 36" 14 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section.....	795.75	107.29
33 42 26 16-0012 EA 42" 12 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section.....	1,208.68	125.17
33 42 26 16-0013 EA 48" 12 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section.....	1,473.79	143.05
33 42 26 16-0014 EA 54" 12 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section.....	1,758.01	178.81
33 42 26 16-0015 EA 60" 10 Gauge, Type 2 Galvanized Corrugated Steel Pipe End Section.....	2,054.69	214.57

33 42 26 16-0016 Type 3 Or 5 Galvanized Corrugated Steel Pipe End Sections (33 42 26 16-0002)
 Note: Stubbed with 1' of pipe (excluded in price). Used with all pipe having annular end corrugations.

33 42 26 16-0017 EA 12" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	227.42	59.28
33 42 26 16-0018 EA 15" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	261.19	63.51
33 42 26 16-0019 EA 18" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	306.45	67.74
33 42 26 16-0020 EA 21" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	368.63	74.10
33 42 26 16-0021 EA 24" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	408.32	80.45
33 42 26 16-0022 EA 30" 14 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	674.98	91.03
33 42 26 16-0023 EA 36" 14 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	867.63	107.29
33 42 26 16-0024 EA 42" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	1,368.67	125.17
33 42 26 16-0025 EA 48" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	1,680.25	143.05
33 42 26 16-0026 EA 54" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	1,966.79	178.81
33 42 26 16-0027 EA 60" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	2,715.97	214.57
33 42 26 16-0028 EA 66" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	3,104.81	321.86
33 42 26 16-0029 EA 72" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	3,648.28	429.15
33 42 26 16-0030 EA 78" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	3,971.96	460.44
33 42 26 16-0031 EA 84" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe End Section.....	4,303.26	491.73

33 42 26 16-0032 Toe Plate Extensions For Galvanized Corrugated Steel Pipe End Section (33 42 26 16-0002)

33 42 26 16-0033 EA Toe Plate Extension For 12" Diameter Galvanized Corrugated Steel Pipe End Section.....	27.90	
33 42 26 16-0034 EA Toe Plate Extension For 15" Diameter Galvanized Corrugated Steel Pipe End Section.....	30.98	
33 42 26 16-0035 EA Toe Plate Extension For 18" Diameter Galvanized Corrugated Steel Pipe End Section.....	34.72	
33 42 26 16-0036 EA Toe Plate Extension For 21" Diameter Galvanized Corrugated Steel Pipe End Section.....	37.74	
33 42 26 16-0037 EA Toe Plate Extension For 24" Diameter Galvanized Corrugated Steel Pipe End Section.....	42.19	
33 42 26 16-0038 EA Toe Plate Extension For 30" Diameter Galvanized Corrugated Steel Pipe End Section.....	72.84	
33 42 26 16-0039 EA Toe Plate Extension For 36" Diameter Galvanized Corrugated Steel Pipe End Section.....	78.39	
33 42 26 16-0040 EA Toe Plate Extension For 42" Diameter Galvanized Corrugated Steel Pipe End Section.....	106.54	
33 42 26 16-0041 EA Toe Plate Extension For 48" Diameter Galvanized Corrugated Steel Pipe End Section.....	114.24	
33 42 26 16-0042 EA Toe Plate Extension For 54" Diameter Galvanized Corrugated Steel Pipe End Section.....	139.23	
33 42 26 16-0043 EA Toe Plate Extension For 60" Diameter Galvanized Corrugated Steel Pipe End Section.....	142.91	
33 42 26 16-0044 EA Toe Plate Extension For 66" Diameter Galvanized Corrugated Steel Pipe End Section.....	153.19	
33 42 26 16-0045 EA Toe Plate Extension For 72" Diameter Galvanized Corrugated Steel Pipe End Section.....	176.21	
33 42 26 16-0046 EA Toe Plate Extension For 78" Diameter Galvanized Corrugated Steel Pipe End Section.....	196.93	
33 42 26 16-0047 EA 84" Diameter Galvanized Corrugated Steel Pipe End Section Toe Plate Extension.....	202.20	

33 42 26 16-0048 Galvanized Corrugated Steel Pipe-Arch End Sections (33 42 26 16-0001)
33 42 26 16-0049 Type 1 Galvanized Corrugated Steel Pipe-Arch End Sections (33 42 26 16-0048)
 Note: Used with annular corrugations, no band required. Consists of a 12 gauge steel strap with a 6" bolt and nut.

33 42 26 16-0050 EA 17" x 13" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe-Arch End Section.....	252.00	63.51
33 42 26 16-0051 EA 21" x 15" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe-Arch End Section.....	292.34	67.74
33 42 26 16-0052 EA 24" x 18" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe-Arch End Section.....	351.68	74.10
33 42 26 16-0053 EA 28" x 20" 16 Gauge, Type 1 Galvanized Corrugated Steel Pipe-Arch End Section.....	389.10	80.45

33 42 26 16-0054 Type 2 Galvanized Corrugated Steel Pipe-Arch End Sections (33 42 26 16-0048)
 Note: Partial circumferential rod with two hinge type lugs used with annular corrugations. No band required.

33 42 26 16-0055 EA 17" x 13" 16 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section.....	244.30	63.51
33 42 26 16-0056 EA 21" x 15" 16 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section.....	278.08	67.74
33 42 26 16-0057 EA 24" x 18" 16 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section.....	310.87	74.10
33 42 26 16-0058 EA 28" x 20" 16 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section.....	350.13	80.45
33 42 26 16-0059 EA 35" x 24" 14 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section.....	504.87	91.03
33 42 26 16-0060 EA 42" x 29" 14 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section.....	727.60	107.29
33 42 26 16-0061 EA 49" x 33" 12 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section.....	1,120.85	125.17
33 42 26 16-0062 EA 57" x 38" 12 Gauge, Type 2 Galvanized Corrugated Steel Pipe-Arch End Section.....	1,415.26	143.05

33 42 26 16-0063 Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Sections (33 42 26 16-0048)
 Note: Stubbed with 1' of pipe (excluded in price). Used with all pipe having annular end corrugations.



MINOR
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TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 42 26 16-0064	EA	17" x 13" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	248.21	63.51
33 42 26 16-0065	EA	21" x 15" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	286.59	67.74
33 42 26 16-0066	EA	24" x 18" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	324.16	74.10
33 42 26 16-0067	EA	28" x 20" 16 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	365.89	80.45
33 42 26 16-0068	EA	35" x 24" 14 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	531.66	91.03
33 42 26 16-0069	EA	42" x 29" 14 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	764.13	107.29
33 42 26 16-0070	EA	49" x 33" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	1,179.29	125.17
33 42 26 16-0071	EA	57" x 38" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	1,482.52	143.05
33 42 26 16-0072	EA	64" x 43" 12 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	1,785.64	178.81
33 42 26 16-0073	EA	71" x 47" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	2,341.60	214.57
33 42 26 16-0074	EA	77" x 52" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	3,274.49	321.86
33 42 26 16-0075	EA	83" x 57" 10 Gauge, Type 3 Or 5 Galvanized Corrugated Steel Pipe-Arch End Section	3,646.02	429.15

33 42 26 16-0076 Toe Plate Extensions For Galvanized Corrugated Steel Pipe-Arch End Section (33 42 26 16-0048)

33 42 26 16-0077	EA	Toe Plate Extension For 17" x 13" Galvanized Corrugated Steel Pipe-Arch End Section	30.98	
33 42 26 16-0078	EA	Toe Plate Extension For 21" x 15" Galvanized Corrugated Steel Pipe-Arch End Section	34.72	
33 42 26 16-0079	EA	Toe Plate Extension For 24" x 18" Galvanized Corrugated Steel Pipe-Arch End Section	37.74	
33 42 26 16-0080	EA	Toe Plate Extension For 28" x 20" Galvanized Corrugated Steel Pipe-Arch End Section	42.19	
33 42 26 16-0081	EA	Toe Plate Extension For 35" x 24" Galvanized Corrugated Steel Pipe-Arch End Section	72.84	
33 42 26 16-0082	EA	Toe Plate Extension For 42" x 29" Galvanized Corrugated Steel Pipe-Arch End Section	78.39	
33 42 26 16-0083	EA	Toe Plate Extension For 49" x 33" Galvanized Corrugated Steel Pipe-Arch End Section	106.54	
33 42 26 16-0084	EA	Toe Plate Extension For 57" x 38" Galvanized Corrugated Steel Pipe-Arch End Section	118.66	
33 42 26 16-0085	EA	Toe Plate Extension For 64" x 43" Galvanized Corrugated Steel Pipe-Arch End Section	139.23	
33 42 26 16-0086	EA	Toe Plate Extension For 71" x 47" Galvanized Corrugated Steel Pipe-Arch End Section	144.66	
33 42 26 16-0087	EA	Toe Plate Extension For 77" x 52" Galvanized Corrugated Steel Pipe-Arch End Section	167.53	
33 42 26 16-0088	EA	Toe Plate Extension For 83" x 57" Galvanized Corrugated Steel Pipe-Arch End Section	191.99	

33 42 26 16-0089 Corrugated Aluminum Pipe End Sections (33 42 26 16-0001)

33 42 26 16-0090 Corrugated Aluminum Pipe End Sections (33 42 26 16-0089)

33 42 26 16-0091	EA	12" Diameter 16 Gauge, Corrugated Aluminum Pipe End Section	322.26	59.28
33 42 26 16-0092	EA	15" Diameter 16 Gauge, Corrugated Aluminum Pipe End Section	370.15	63.51
33 42 26 16-0093	EA	18" Diameter 16 Gauge, Corrugated Aluminum Pipe End Section	436.93	67.74
33 42 26 16-0094	EA	21" Diameter 16 Gauge, Corrugated Aluminum Pipe End Section	539.13	74.10
33 42 26 16-0095	EA	24" Diameter 14 Gauge, Corrugated Aluminum Pipe End Section	699.98	80.45
33 42 26 16-0096	EA	30" Diameter 14 Gauge, Corrugated Aluminum Pipe End Section	1,042.13	91.03
33 42 26 16-0097	EA	36" Diameter 14 Gauge, Corrugated Aluminum Pipe End Section	1,411.04	107.29
33 42 26 16-0098	EA	36" Diameter 12 Gauge, Corrugated Aluminum Pipe End Section	1,750.54	107.29
33 42 26 16-0099	EA	42" Diameter 12 Gauge, Corrugated Aluminum Pipe End Section	2,230.07	125.17
33 42 26 16-0100	EA	48" Diameter 12 Gauge, Corrugated Aluminum Pipe End Section	3,174.91	143.05
33 42 26 16-0101	EA	54" Diameter 12 Gauge, Corrugated Aluminum Pipe End Section	3,521.39	178.81
33 42 26 16-0102	EA	60" Diameter 12 And 10 Gauge, Corrugated Aluminum Pipe End Section	4,740.29	214.57
33 42 26 16-0103	EA	66" Diameter 12 And 10 Gauge, Corrugated Aluminum Pipe End Section	5,386.97	321.86
33 42 26 16-0104	EA	72" Diameter 12 And 10 Gauge, Corrugated Aluminum Pipe End Section	6,312.69	429.15
33 42 26 16-0105	EA	78" Diameter 12 And 10 Gauge, Corrugated Aluminum Pipe End Section	6,892.66	460.44
33 42 26 16-0106	EA	84" Diameter 12 And 10 Gauge, Corrugated Aluminum Pipe End Section	7,274.34	491.73
33 42 26 16-0107	EA	90" Diameter 12 And 10 Gauge, Corrugated Aluminum Pipe End Section	9,921.10	536.43
33 42 26 16-0108	EA	96" Diameter 12 And 10 Gauge, Corrugated Aluminum Pipe End Section	10,980.18	581.14

33 42 26 16-0109 Toe Plate Extensions For Corrugated Aluminum Pipe End Section (33 42 26 16-0089)

33 42 26 16-0110	EA	Toe Plate Extension For 12" Diameter, 16 Gauge, Corrugated Aluminum Pipe End Section	50.42	
33 42 26 16-0111	EA	Toe Plate Extension For 15" Diameter, 16 Gauge, Corrugated Aluminum Pipe End Section	53.42	
33 42 26 16-0112	EA	Toe Plate Extension For 18" Diameter, 16 Gauge, Corrugated Aluminum Pipe End Section	57.86	
33 42 26 16-0113	EA	Toe Plate Extension For 21" Diameter, 16 Gauge, Corrugated Aluminum Pipe End Section	65.04	
33 42 26 16-0114	EA	Toe Plate Extension For 24" Diameter, 14 Gauge, Corrugated Aluminum Pipe End Section	69.06	
33 42 26 16-0115	EA	Toe Plate Extension For 30" Diameter, 14 Gauge, Corrugated Aluminum Pipe End Section	89.57	
33 42 26 16-0116	EA	Toe Plate Extension For 36" Diameter, 14 Gauge, Corrugated Aluminum Pipe End Section	107.20	
33 42 26 16-0117	EA	Toe Plate Extension For 36" Diameter, 12 Gauge, Corrugated Aluminum Pipe End Section	112.87	
33 42 26 16-0118	EA	Toe Plate Extension For 42" Diameter, 12 Gauge, Corrugated Aluminum Pipe End Section	123.77	
33 42 26 16-0119	EA	Toe Plate Extension For 48" Diameter, 12 Gauge, Corrugated Aluminum Pipe End Section	139.89	
33 42 26 16-0120	EA	Toe Plate Extension For 54" Diameter, 12 Gauge, Corrugated Aluminum Pipe End Section	165.22	
33 42 26 16-0121	EA	Toe Plate Extension For 60" Diameter, 12 And 10 Gauge, Corrugated Aluminum Pipe End Section	229.11	
33 42 26 16-0122	EA	Toe Plate Extension For 66" Diameter, 12 And 10 Gauge, Corrugated Aluminum Pipe End Section	247.71	
33 42 26 16-0123	EA	Toe Plate Extension For 72" Diameter, 12 And 10 Gauge, Corrugated Aluminum Pipe End Section	315.80	
33 42 26 16-0124	EA	Toe Plate Extension For 78" Diameter, 12 And 10 Gauge, Corrugated Aluminum Pipe End Section	341.99	
33 42 26 16-0125	EA	Toe Plate Extension For 84" Diameter, 12 And 10 Gauge, Corrugated Aluminum Pipe End Section	364.49	
33 42 26 16-0126	EA	Toe Plate Extension For 90" Diameter, 12 And 10 Gauge, Corrugated Aluminum Pipe End Section	388.09	
33 42 26 16-0127	EA	Toe Plate Extension For 96" Diameter, 12 And 10 Gauge, Corrugated Aluminum Pipe End Section	412.02	

33 42 26 16-0128 Corrugated Aluminum Pipe-Arch End Sections (33 42 26 16-0001)

33 42 26 16-0129 Corrugated Aluminum Pipe-Arch End Sections (33 42 26 16-0128)

33 42 26 16-0130	EA	17" x 13" 16 Gauge, Corrugated Aluminum Pipe-Arch End Section	381.13	63.51
33 42 26 16-0131	EA	21" x 15" 16 Gauge, Corrugated Aluminum Pipe-Arch End Section	463.68	67.74
33 42 26 16-0132	EA	24" x 18" 16 Gauge, Corrugated Aluminum Pipe-Arch End Section	503.65	74.10
33 42 26 16-0133	EA	28" x 20" 16 Gauge, Corrugated Aluminum Pipe-Arch End Section	543.61	80.45



	Utilities	33	
	Stormwater Utilities	33 40	33
	Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 26 16-0134 EA 35" x 24" 14 Gauge, Corrugated Aluminum Pipe-Arch End Section	807.57	91.03
33 42 26 16-0135 EA 42" x 29" 14 Gauge, Corrugated Aluminum Pipe-Arch End Section	1,426.64	107.29
33 42 26 16-0136 EA 42" x 29" 12 Gauge, Corrugated Aluminum Pipe-Arch End Section	1,512.72	107.29
33 42 26 16-0137 EA 49" x 33" 12 Gauge, Corrugated Aluminum Pipe-Arch End Section	2,017.77	125.17
33 42 26 16-0138 EA 57" x 38" 12 Gauge, Corrugated Aluminum Pipe-Arch End Section	3,092.23	143.05
33 42 26 16-0139 EA 64" x 43" 12 Gauge, Corrugated Aluminum Pipe-Arch End Section	3,543.84	178.81
33 42 26 16-0140 EA 71" x 47" 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section	4,284.45	214.57
33 42 26 16-0141 EA 77" x 52" 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section	7,168.78	321.86
33 42 26 16-0142 EA 83" x 57" 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section	7,544.97	429.15
33 42 26 16-0143 EA 87" x 63" 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section	8,213.61	460.44
33 42 26 16-0144 EA 95" x 67" 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section	8,575.46	491.73
33 42 26 16-0145 EA 103" x 71" 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section	9,347.42	536.43
33 42 26 16-0146 EA 112" x 75" 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section	9,905.39	581.14
33 42 26 16-0147 Toe Plate Extensions For Corrugated Aluminum Pipe-Arch End Section (33 42		
<small>26 16-0128)</small>		
33 42 26 16-0148 EA Toe Plate Extension For 17" x 13", 16 Gauge, Corrugated Aluminum Pipe-Arch End Section	53.42	
33 42 26 16-0149 EA Toe Plate Extension For 21" x 15", 16 Gauge, Corrugated Aluminum Pipe-Arch End Section	57.86	
33 42 26 16-0150 EA Toe Plate Extension For 24" x 18", 16 Gauge, Corrugated Aluminum Pipe-Arch End Section	61.07	
33 42 26 16-0151 EA Toe Plate Extension For 28" x 20", 16 Gauge, Corrugated Aluminum Pipe-Arch End Section	66.88	
33 42 26 16-0152 EA Toe Plate Extension For 35" x 24", 14 Gauge, Corrugated Aluminum Pipe-Arch End Section	77.10	
33 42 26 16-0153 EA Toe Plate Extension For 42" x 29", 14 Gauge, Corrugated Aluminum Pipe-Arch End Section	100.03	
33 42 26 16-0154 EA Toe Plate Extension For 42" x 29", 12 Gauge, Corrugated Aluminum Pipe-Arch End Section	109.07	
33 42 26 16-0155 EA Toe Plate Extension For 49" x 33", 12 Gauge, Corrugated Aluminum Pipe-Arch End Section	123.77	
33 42 26 16-0156 EA Toe Plate Extension For 57" x 38", 12 Gauge, Corrugated Aluminum Pipe-Arch End Section	139.89	
33 42 26 16-0157 EA Toe Plate Extension For 64" x 43", 12 Gauge, Corrugated Aluminum Pipe-Arch End Section	165.22	
33 42 26 16-0158 EA Toe Plate Extension For 71" x 47", 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section	209.00	
33 42 26 16-0159 EA Toe Plate Extension For 77" x 52", 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section	264.55	
33 42 26 16-0160 EA Toe Plate Extension For 83" x 57", 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section	357.89	
33 42 26 16-0161 EA Toe Plate Extension For 87" x 63", 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section	406.06	
33 42 26 16-0162 EA Toe Plate Extension For 95" x 67", 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section	425.60	
33 42 26 16-0163 EA Toe Plate Extension For 103" x 71", 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section	441.71	
33 42 26 16-0164 EA Toe Plate Extension For 112" x 75", 12 And 10 Gauge, Corrugated Aluminum Pipe-Arch End Section	461.27	
33 42 26 16-0165 Low Slope Corrugated Steel Pipe End Sections And Accessories (33 42 26 16-0001)		
33 42 26 16-0166 4:1 Corrugated Steel Pipe End Sections (33 42 26 16-0165)		
33 42 26 16-0167 EA 15" 16 Gauge, 4:1 Corrugated Steel Pipe End Section	486.51	63.51
33 42 26 16-0168 EA 18" 16 Gauge, 4:1 Corrugated Steel Pipe End Section	623.45	67.74
33 42 26 16-0169 EA 21" 16 Gauge, 4:1 Corrugated Steel Pipe End Section	761.40	74.10
33 42 26 16-0170 EA 24" 16 Gauge, 4:1 Corrugated Steel Pipe End Section	909.07	80.45
33 42 26 16-0171 EA 30" 16 Gauge, 4:1 Corrugated Steel Pipe End Section	963.09	91.03
33 42 26 16-0172 EA 36" 16 Gauge, 4:1 Corrugated Steel Pipe End Section	1,255.33	107.29
33 42 26 16-0173 EA 42" 16 Gauge, 4:1 Corrugated Steel Pipe End Section	1,975.36	125.17
33 42 26 16-0174 3" Diameter Parallel Safety Bar For 4:1 Corrugated Steel Pipe End		
Sections (33 42 26 16-0165)		
<small>Note: Includes nut and bolt set.</small>		
33 42 26 16-0175 EA 3" Diameter Parallel Safety Bar For 15" 4:1 Corrugated Steel Pipe End Section	343.78	
33 42 26 16-0176 EA 3" Diameter Parallel Safety Bar For 18" 4:1 Corrugated Steel Pipe End Section	682.84	
33 42 26 16-0177 EA 3" Diameter Parallel Safety Bar For 21" 4:1 Corrugated Steel Pipe End Section	749.32	
33 42 26 16-0178 EA 3" Diameter Parallel Safety Bar For 24" 4:1 Corrugated Steel Pipe End Section	779.39	
33 42 26 16-0179 6:1 Corrugated Steel Pipe End Sections (33 42 26 16-0165)		
33 42 26 16-0180 EA 15" 16 Gauge, 6:1 Corrugated Steel Pipe End Section	508.81	63.51
33 42 26 16-0181 EA 18" 16 Gauge, 6:1 Corrugated Steel Pipe End Section	663.54	67.74
33 42 26 16-0182 EA 21" 16 Gauge, 6:1 Corrugated Steel Pipe End Section	879.40	74.10
33 42 26 16-0183 EA 24" 16 Gauge, 6:1 Corrugated Steel Pipe End Section	1,031.71	80.45
33 42 26 16-0184 EA 30" 16 Gauge, 6:1 Corrugated Steel Pipe End Section	1,223.43	91.03
33 42 26 16-0185 EA 36" 16 Gauge, 6:1 Corrugated Steel Pipe End Section	1,485.12	107.29
33 42 26 16-0186 EA 42" 16 Gauge, 6:1 Corrugated Steel Pipe End Section	2,262.87	125.17
33 42 26 16-0187 3" Diameter Parallel Safety Bar For 6:1 Corrugated Steel Pipe End		
Sections (33 42 26 16-0165)		
<small>Note: Includes nut and bolt set.</small>		
33 42 26 16-0188 EA 3" Diameter Parallel Safety Bar For 15" 6:1 Corrugated Steel Pipe End Section	664.71	
33 42 26 16-0189 EA 3" Diameter Parallel Safety Bar For 18" 6:1 Corrugated Steel Pipe End Section	706.13	
33 42 26 16-0190 EA 3" Diameter Parallel Safety Bar For 21" 6:1 Corrugated Steel Pipe End Section	776.84	
33 42 26 16-0191 EA 3" Diameter Parallel Safety Bar For 24" 6:1 Corrugated Steel Pipe End Section	817.50	
33 42 26 16-0192 Toe Plate Extensions For Low Slope Corrugated Steel Pipe End Section (33 42		
<small>26 16-0165)</small>		
33 42 26 16-0193 EA Toe Plate Extension For 15" Low Slope Corrugated Steel Pipe End Section	59.33	
33 42 26 16-0194 EA Toe Plate Extension For 18" Low Slope Corrugated Steel Pipe End Section	66.43	
33 42 26 16-0195 EA Toe Plate Extension For 21" Low Slope Corrugated Steel Pipe End Section	72.28	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
	33 42 26 16-0196	EA	Toe Plate Extension For 24" Low Slope Corrugated Steel Pipe End Section	80.65	
	33 42 26 16-0197	EA	Toe Plate Extension For 30" Low Slope Corrugated Steel Pipe End Section	120.72	
	33 42 26 16-0198	EA	Toe Plate Extension For 36" Low Slope Corrugated Steel Pipe End Section	129.56	
	33 42 26 16-0199	EA	Toe Plate Extension For 42" Low Slope Corrugated Steel Pipe End Section	173.16	
33 42 26 16-0200	Low Slope Corrugated Steel Pipe-Arch End Sections And Accessories (33 42 26 16-0001)				
33 42 26 16-0201	4:1 Corrugated Steel Pipe-Arch End Section (33 42 26 16-0200)				
	33 42 26 16-0202	EA	21" x 15" 16 Gauge, 4:1 Corrugated Steel Pipe-Arch End Section	576.49	67.74
	33 42 26 16-0203	EA	24" x 18" 16 Gauge, 4:1 Corrugated Steel Pipe-Arch End Section	720.95	74.10
	33 42 26 16-0204	EA	28" x 20" 16 Gauge, 4:1 Corrugated Steel Pipe-Arch End Section	851.78	80.45
	33 42 26 16-0205	EA	35" x 24" 16 Gauge, 4:1 Corrugated Steel Pipe-Arch End Section	1,592.07	91.03
33 42 26 16-0206	3" Diameter Parallel Safety Bar For 4:1 Corrugated Steel Pipe-Arch End Sections (33 42 26 16-0200)				
	Note: Includes nut and bolt set.				
	33 42 26 16-0207	EA	3" Diameter Parallel Safety Bar For 21" x 15" 4:1 Corrugated Steel Pipe-Arch End Section	408.74	
	33 42 26 16-0208	EA	3" Diameter Parallel Safety Bar For 24" x 18" 4:1 Corrugated Steel Pipe-Arch End Section	739.50	
	33 42 26 16-0209	EA	3" Diameter Parallel Safety Bar For 28" x 20" 4:1 Corrugated Steel Pipe-Arch End Section	779.39	
	33 42 26 16-0210	EA	3" Diameter Parallel Safety Bar For 35" x 24" 4:1 Corrugated Steel Pipe-Arch End Section	1,144.26	
33 42 26 16-0211	Toe Plate Extensions For Low Slope Corrugated Steel Pipe-Arch End Section (33 42 26 16-0200)				
	33 42 26 16-0212	EA	Toe Plate Extension For 21" x 15" Low Slope Corrugated Steel Pipe-Arch End Section	60.03	
	33 42 26 16-0213	EA	Toe Plate Extension For 24" x 18" Low Slope Corrugated Steel Pipe-Arch End Section	67.99	
	33 42 26 16-0214	EA	Toe Plate Extension For 28" x 20" Low Slope Corrugated Steel Pipe-Arch End Section	74.12	
	33 42 26 16-0215	EA	Toe Plate Extension For 35" x 24" Low Slope Corrugated Steel Pipe-Arch End Section	88.69	
33 42 26 19	Corrugated High-Density Polyethylene (HDPE) End Sections for Stormwater Piping (33 42 26)				
33 42 26 19-0001	Corrugated High Density Polyethylene (HDPE) Pipe End Sections (33 42 26 19)				
	33 42 26 19-0002	EA	4" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	49.23	16.93
	33 42 26 19-0003	EA	6" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	90.76	25.39
	33 42 26 19-0004	EA	8" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	122.80	31.75
	33 42 26 19-0005	EA	10" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	193.53	50.79
	33 42 26 19-0006	EA	12" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	229.34	57.14
	33 42 26 19-0007	EA	15" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	243.55	61.37
	33 42 26 19-0008	EA	18" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	288.32	67.72
	33 42 26 19-0009	EA	24" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	372.72	80.41
	33 42 26 19-0010	EA	30" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	757.06	91.00
	33 42 26 19-0011	EA	36" End Section, Corrugated High Density Polyethylene (HDPE) Pipe	922.01	101.58
33 42 26 23	Concrete End Sections for Stormwater Piping (33 42 26)				
33 42 26 23-0001	Precast Concrete End Sections (33 42 26 23)				
33 42 26 23-0002	Precast Concrete End Sections (33 42 26 23-0001)				
	33 42 26 23-0003	EA	12" Diameter Pipe, Precast Concrete End Section	470.67	99.33
	33 42 26 23-0004	EA	15" Diameter Pipe, Precast Concrete End Section	627.58	122.96
	33 42 26 23-0005	EA	18" Diameter Pipe, Precast Concrete End Section	778.45	155.65
	33 42 26 23-0006	EA	21" Diameter Pipe, Precast Concrete End Section	896.43	186.13
	33 42 26 23-0007	EA	24" Diameter Pipe, Precast Concrete End Section	960.00	215.43
	33 42 26 23-0008	EA	27" Diameter Pipe, Precast Concrete End Section	1,212.11	266.43
	33 42 26 23-0009	EA	30" Diameter Pipe, Precast Concrete End Section	1,518.68	400.18
	33 42 26 23-0010	EA	36" Diameter Pipe, Precast Concrete End Section	1,879.48	504.96
	33 42 26 23-0011	EA	42" Diameter Pipe, Precast Concrete End Section	2,282.97	633.44
	33 42 26 23-0012	EA	48" Diameter Pipe, Precast Concrete End Section	2,510.22	714.35
	33 42 26 23-0013	EA	54" Diameter Pipe, Precast Concrete End Section	2,746.40	800.18
	33 42 26 23-0014	EA	60" Diameter Pipe, Precast Concrete End Section	2,988.90	889.58
	33 42 26 23-0015	EA	66" Diameter Pipe Precast Concrete End Section	2,920.87	721.91
	33 42 26 23-0016	EA	72" Diameter Pipe Precast Concrete End Section	3,376.56	902.37
	33 42 26 23-0017	EA	78" Diameter Pipe Precast Concrete End Section	4,037.32	1,127.97
	33 42 26 23-0018	EA	84" Diameter Pipe Precast Concrete End Section	4,785.00	1,353.56
33 42 26 23-0019	Flared Precast Concrete End Sections (33 42 26 23-0001)				
	33 42 26 23-0020	EA	12" Diameter Pipe, Flared Precast Concrete End Section	582.41	104.16
	33 42 26 23-0021	EA	15" Diameter Pipe, Flared Precast Concrete End Section	702.79	129.82
	33 42 26 23-0022	EA	18" Diameter Pipe, Flared Precast Concrete End Section	855.94	164.33
	33 42 26 23-0023	EA	21" Diameter Pipe, Flared Precast Concrete End Section	981.57	196.51
	33 42 26 23-0024	EA	24" Diameter Pipe, Flared Precast Concrete End Section	1,192.77	227.45
	33 42 26 23-0025	EA	27" Diameter Pipe, Flared Precast Concrete End Section	1,474.29	363.26
	33 42 26 23-0026	EA	30" Diameter Pipe, Flared Precast Concrete End Section	1,583.17	500.14
	33 42 26 23-0027	EA	36" Diameter Pipe, Flared Precast Concrete End Section	2,121.03	631.20



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 26 23-0028 EA 42" Diameter Pipe, Flared Precast Concrete End Section	2,559.10	791.95
33 42 26 23-0029 EA 48" Diameter Pipe, Flared Precast Concrete End Section	2,783.70	893.16
33 42 26 23-0030 EA 54" Diameter Pipe, Flared Precast Concrete End Section	3,114.14	1,000.36
33 42 26 23-0031 EA 60" Diameter Pipe, Flared Precast Concrete End Section	3,451.62	1,111.13
33 42 26 23-0032 EA 66" Diameter Pipe, Flared Precast Concrete End Section	4,019.35	1,280.20
33 42 26 23-0033 EA 72" Diameter Pipe, Flared Precast Concrete End Section	4,662.17	1,428.88
33 42 26 23-0034 EA 78" Diameter Pipe, Flared Precast Concrete End Section	5,281.55	1,607.42
33 42 26 23-0035 EA 84" Diameter Pipe, Flared Precast Concrete End Section	6,064.94	1,785.78
33 42 31 Stormwater Area Drains and Inlets (33 42)		
33 42 31 00-0001 Storm Drains (33 42 31)		
33 42 31 00-0002 Catch Basins And Inlet Basins (33 42 31 00-0001)		
Note: Includes base slab, opening and grout. Excludes frame, grate, excavation and backfill.		
33 42 31 00-0003 Cast In Place, Grate Drop Inlet Basins (33 42 31 00-0002)		
Note: Inside dimensions.		
33 42 31 00-0004 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basins (33 42 31 00-0003)		
33 42 31 00-0005 EA 2' Deep, 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basin	1,416.96	274.65
33 42 31 00-0006 EA 3' Deep, 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basin	1,688.13	321.81
33 42 31 00-0007 EA 4' Deep, 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basin	1,959.30	368.89
33 42 31 00-0008 EA 5' Deep, 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,230.48	416.04
33 42 31 00-0009 EA 6' Deep, 3' x 3' x 4" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,501.65	463.11
33 42 31 00-0010 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basins (33 42 31 00-0003)		
33 42 31 00-0011 EA 2' Deep, 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basin	1,775.23	273.00
33 42 31 00-0012 EA 3' Deep, 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,207.93	364.00
33 42 31 00-0013 EA 4' Deep, 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,836.78	496.36
33 42 31 00-0014 EA 5' Deep, 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basin	3,441.67	579.10
33 42 31 00-0015 EA 6' Deep, 3'-8" x 3'-8" x 6" Thick Wall, Cast In Place, Grate Drop Inlet Basin	3,940.18	661.83
33 42 31 00-0016 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basins (33 42 31 00-0003)		
33 42 31 00-0017 EA 2' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basin	1,905.42	297.82
33 42 31 00-0018 EA 3' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basin	2,637.50	413.64
33 42 31 00-0019 EA 4' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basin	3,243.03	537.74
33 42 31 00-0020 EA 5' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basin	3,745.62	620.46
33 42 31 00-0021 EA 6' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Grate Drop Inlet Basin	4,755.46	794.19
33 42 31 00-0022 Cast In Place, Catch Basin (33 42 31 00-0002)		
Note: Inside span, overall depth. Includes concrete, forms, rebar (where required), finish and curing.		
33 42 31 00-0023 3' x 3', Cast In Place, Catch Basins (33 42 31 00-0022)		
33 42 31 00-0024 EA 3' Deep, 3' x 3' x 6" Thick Wall, Cast In Place, Catch Basin	1,771.90	332.07
33 42 31 00-0025 EA 3'-6" Deep, 3' x 3' x 6" Thick Wall, Cast In Place, Catch Basin	1,879.02	353.08
33 42 31 00-0026 EA 4' Deep, 3' x 3' x 6" Thick Wall, Cast In Place, Catch Basin	2,055.30	379.23
33 42 31 00-0027 EA 4'-6" Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	2,304.66	419.76
33 42 31 00-0028 EA 5' Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	2,487.97	446.81
33 42 31 00-0029 EA 5'-6" Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	2,604.59	468.58
33 42 31 00-0030 EA 6' Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	2,788.07	495.63
33 42 31 00-0031 EA 6'-6" Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	2,902.23	517.47
33 42 31 00-0032 EA 7' Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	3,086.85	544.43
33 42 31 00-0033 EA 7'-6" Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	3,202.32	566.27
33 42 31 00-0034 EA 8' Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	3,385.71	593.33
33 42 31 00-0035 VLF >8' Deep, 3' x 3' x 8" Thick Wall, Cast In Place, Catch Basin	423.24	74.13
33 42 31 00-0036 3'-6" x 3'-6", Cast In Place, Catch Basins (33 42 31 00-0022)		
33 42 31 00-0037 EA 3' Deep, 3'-6" x 3'-6" x 6" Thick Wall, Cast In Place, Catch Basin	2,038.09	383.86
33 42 31 00-0038 EA 3'-6" Deep, 3'-6" x 3'-6" x 6" Thick Wall, Cast In Place, Catch Basin	2,174.03	410.82
33 42 31 00-0039 EA 4' Deep, 3'-6" x 3'-6" x 6" Thick Wall, Cast In Place, Catch Basin	2,357.28	437.88
33 42 31 00-0040 EA 4'-6" Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	2,648.42	484.95
33 42 31 00-0041 EA 5' Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	2,849.78	515.56
33 42 31 00-0042 EA 5'-6" Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	2,984.30	540.96
33 42 31 00-0043 EA 6' Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	3,187.95	571.56
33 42 31 00-0044 EA 6'-6" Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	3,322.46	596.97
33 42 31 00-0045 EA 7' Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	3,524.89	627.58
33 42 31 00-0046 EA 7'-6" Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	3,659.47	652.97
33 42 31 00-0047 EA 8' Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	3,861.98	683.58
33 42 31 00-0048 VLF >8' Deep, 3'-6" x 3'-6" x 8" Thick Wall, Cast In Place, Catch Basin	482.78	85.46
33 42 31 00-0049 4' x 4', Cast In Place, Catch Basins (33 42 31 00-0022)		
33 42 31 00-0050 EA 3' Deep, 4' x 4' x 6" Thick Wall, Cast In Place, Catch Basin	2,323.01	439.12
33 42 31 00-0051 EA 3'-6" Deep, 4' x 4' x 6" Thick Wall, Cast In Place, Catch Basin	2,465.91	467.00
33 42 31 00-0052 EA 4' Deep, 4' x 4' x 6" Thick Wall, Cast In Place, Catch Basin	2,676.81	500.01
33 42 31 00-0053 EA 4'-6" Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin	3,010.23	553.70



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 31 00-0054 EA 5' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin.....	3,231.87	587.86
33 42 31 00-0055 EA 5'-6" Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin.....	3,385.41	616.90
33 42 31 00-0056 EA 6' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin.....	3,607.02	651.08
33 42 31 00-0057 EA 6'-6" Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin.....	3,760.52	680.11
33 42 31 00-0058 EA 7' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin.....	3,982.14	714.28
33 42 31 00-0059 EA 7'-6" Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin.....	4,135.67	743.31
33 42 31 00-0060 EA 8' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin.....	4,357.31	777.56
33 42 31 00-0061 VLF >8' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Catch Basin.....	544.63	97.20
33 42 31 00-0062 4'-6" x 4'-6", Cast In Place, Catch Basins (33 42 31 00-0022)		
33 42 31 00-0063 EA 3' Deep, 4'-6" x 4'-6" x 6" Thick Wall, Cast In Place, Catch Basin.....	2,682.90	509.19
33 42 31 00-0064 EA 3'-6" Deep, 4'-6" x 4'-6" x 6" Thick Wall, Cast In Place, Catch Basin.....	2,849.57	537.98
33 42 31 00-0065 EA 4' Deep, 4'-6" x 4'-6" x 6" Thick Wall, Cast In Place, Catch Basin.....	3,083.12	575.21
33 42 31 00-0066 EA 4'-6" Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	3,463.34	636.26
33 42 31 00-0067 EA 5' Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	3,709.30	674.82
33 42 31 00-0068 EA 5'-6" Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	3,887.28	708.15
33 42 31 00-0069 EA 6' Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	4,133.30	746.70
33 42 31 00-0070 EA 6'-6" Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	4,311.27	780.13
33 42 31 00-0071 EA 7' Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	4,557.24	818.68
33 42 31 00-0072 EA 7'-6" Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	4,734.05	852.01
33 42 31 00-0073 EA 8' Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	4,981.24	890.57
33 42 31 00-0074 VLF >8' Deep, 4'-6" x 4'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	622.70	111.35
33 42 31 00-0075 5' x 5', Cast In Place, Catch Basins (33 42 31 00-0022)		
33 42 31 00-0076 EA 4' Deep, 5' x 5' x 6" Thick Wall, Cast In Place, Catch Basin.....	3,450.74	645.85
33 42 31 00-0077 EA 4'-6" Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin.....	3,874.13	713.69
33 42 31 00-0078 EA 5' Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin.....	4,140.71	755.97
33 42 31 00-0079 EA 5'-6" Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin.....	4,338.12	793.03
33 42 31 00-0080 EA 6' Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin.....	4,602.31	835.22
33 42 31 00-0081 EA 6'-6" Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin.....	4,800.88	872.28
33 42 31 00-0082 EA 7' Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin.....	5,066.28	914.56
33 42 31 00-0083 EA 7'-6" Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin.....	5,262.47	951.62
33 42 31 00-0084 EA 8' Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin.....	5,529.05	993.81
33 42 31 00-0085 VLF >8' Deep, 5' x 5' x 8" Thick Wall, Cast In Place, Catch Basin.....	981.01	124.26
33 42 31 00-0086 5'-6" x 5'-6", Cast In Place, Catch Basins (33 42 31 00-0022)		
33 42 31 00-0087 EA 4' Deep, 5'-6" x 5'-6" x 6" Thick Wall, Cast In Place, Catch Basin.....	3,836.28	720.24
33 42 31 00-0088 EA 4'-6" Deep, 5'-6" x 5'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	4,447.31	815.30
33 42 31 00-0089 EA 5' Deep, 5'-6" x 5'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	4,742.30	862.27
33 42 31 00-0090 EA 5'-6" Deep, 5'-6" x 5' x 8" Thick Wall, Cast In Place, Catch Basin.....	4,968.10	904.38
33 42 31 00-0091 EA 6' Deep, 5'-6" x 5'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	5,264.29	951.70
33 42 31 00-0092 EA 6'-6" Deep, 5'-6" x 5'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	5,491.26	993.81
33 42 31 00-0093 EA 7' Deep, 5'-6" x 5'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	5,786.23	1,041.14
33 42 31 00-0094 EA 7'-6" Deep, 5'-6" x 5'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	6,012.03	1,083.25
33 42 31 00-0095 EA 8' Deep, 5'-6" x 5'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	6,307.01	1,130.57
33 42 31 00-0096 VLF >8' Deep, 5'-6" x 5'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	788.37	141.30
33 42 31 00-0097 6' x 6', Cast In Place, Catch Basins (33 42 31 00-0022)		
33 42 31 00-0098 EA 4' Deep, 6' x 6' x 6" Thick Wall, Cast In Place, Catch Basin.....	4,242.10	798.08
33 42 31 00-0099 EA 4'-6" Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin.....	4,915.40	902.40
33 42 31 00-0100 EA 5' Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin.....	5,231.48	953.53
33 42 31 00-0101 EA 5'-6" Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin.....	5,478.32	999.43
33 42 31 00-0102 EA 6' Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin.....	5,793.23	1,050.56
33 42 31 00-0103 EA 6'-6" Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin.....	6,041.29	1,096.48
33 42 31 00-0104 EA 7' Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin.....	6,356.14	1,147.60
33 42 31 00-0105 EA 7'-6" Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin.....	6,603.04	1,193.52
33 42 31 00-0106 EA 8' Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin.....	6,919.10	1,244.64
33 42 31 00-0107 VLF >8' Deep, 6' x 6' x 8" Thick Wall, Cast In Place, Catch Basin.....	864.94	155.61
33 42 31 00-0108 6'-6" x 6'-6", Cast In Place, Catch Basins (33 42 31 00-0022)		
33 42 31 00-0109 EA 4' Deep, 6'-6" x 6'-6" x 6" Thick Wall, Cast In Place, Catch Basin.....	4,665.80	879.65
33 42 31 00-0110 EA 4'-6" Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	5,585.25	1,019.13
33 42 31 00-0111 EA 5' Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	5,932.45	1,075.71
33 42 31 00-0112 EA 5'-6" Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	6,211.56	1,127.09
33 42 31 00-0113 EA 6' Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	6,558.76	1,183.59
33 42 31 00-0114 EA 6'-6" Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	6,837.87	1,235.05
33 42 31 00-0115 EA 7' Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	7,185.06	1,291.55
33 42 31 00-0116 EA 7'-6" Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	7,464.18	1,342.93
33 42 31 00-0117 EA 8' Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	7,812.59	1,399.52
33 42 31 00-0118 VLF >8' Deep, 6'-6" x 6'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	976.54	174.97
33 42 31 00-0119 7' x 7', Cast In Place, Catch Basins (33 42 31 00-0022)		
33 42 31 00-0120 EA 4' Deep, 7' x 7' x 6" Thick Wall, Cast In Place, Catch Basin.....	5,108.71	964.78
33 42 31 00-0121 EA 4'-6" Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin.....	6,114.92	1,116.99



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 31 00-0122 EA 5' Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin.....	6,483.71	1,177.55
33 42 31 00-0123 EA 5'-6" Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin.....	6,783.27	1,232.82
33 42 31 00-0124 EA 6' Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin.....	7,153.14	1,293.28
33 42 31 00-0125 EA 6'-6" Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin.....	7,452.71	1,348.63
33 42 31 00-0126 EA 7' Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin.....	7,821.50	1,409.11
33 42 31 00-0127 EA 7'-6" Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin.....	8,122.23	1,464.46
33 42 31 00-0128 EA 8' Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin.....	8,490.93	1,524.93
33 42 31 00-0129 VLF >8' Deep, 7' x 7' x 8" Thick Wall, Cast In Place, Catch Basin.....	1,061.41	190.61
33 42 31 00-0130 7'-6" x 7'-6", Cast In Place, Catch Basins (33 42 31 00-0022)		
33 42 31 00-0131 EA 4' Deep, 7'-6" x 7'-6" x 6" Thick Wall, Cast In Place, Catch Basin.....	5,778.30	1,082.83
33 42 31 00-0132 EA 4'-6" Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	6,666.26	1,218.83
33 42 31 00-0133 EA 5' Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	7,055.43	1,283.28
33 42 31 00-0134 EA 5'-6" Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	7,377.74	1,342.51
33 42 31 00-0135 EA 6' Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	7,767.98	1,406.96
33 42 31 00-0136 EA 6'-6" Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	8,090.30	1,466.19
33 42 31 00-0137 EA 7' Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	8,479.46	1,530.64
33 42 31 00-0138 EA 7'-6" Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	8,801.78	1,589.87
33 42 31 00-0139 EA 8' Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	9,192.10	1,654.32
33 42 31 00-0140 VLF >8' Deep, 7'-6" x 7'-6" x 8" Thick Wall, Cast In Place, Catch Basin.....	1,148.97	206.82
33 42 31 00-0141 8' x 8', Cast In Place, Catch Basins (33 42 31 00-0022)		
33 42 31 00-0142 EA 4' Deep, 8' x 8' x 6" Thick Wall, Cast In Place, Catch Basin.....	6,279.26	1,178.13
33 42 31 00-0143 EA 4'-6" Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin.....	7,237.88	1,324.64
33 42 31 00-0144 EA 5' Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin.....	7,648.67	1,392.98
33 42 31 00-0145 EA 5'-6" Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin.....	7,992.57	1,456.18
33 42 31 00-0146 EA 6' Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin.....	8,403.27	1,524.52
33 42 31 00-0147 EA 6'-6" Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin.....	8,744.85	1,587.72
33 42 31 00-0148 EA 7' Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin.....	9,157.88	1,656.05
33 42 31 00-0149 EA 7'-6" Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin.....	9,501.78	1,719.26
33 42 31 00-0150 EA 8' Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin.....	9,905.13	1,787.59
33 42 31 00-0151 VLF >8' Deep, 8' x 8' x 8" Thick Wall, Cast In Place, Catch Basin.....	1,239.06	223.45
33 42 31 00-0152 Precast Concrete Catch Basins (33 42 31 00-0002)		
Note: Inside dimensions.		
33 42 31 00-0153 1'-6" Diameter Precast Catch Basins (33 42 31 00-0152)		
33 42 31 00-0154 EA 4' Deep, 1'-6" Diameter Precast Catch Basins.....	547.59	180.91
33 42 31 00-0155 EA 6' Deep, 1'-6" Diameter Precast Catch Basins.....	767.38	271.36
33 42 31 00-0156 EA 8' Deep, 1'-6" Diameter Precast Catch Basins.....	977.24	352.76
33 42 31 00-0157 EA 10' Deep, 1'-6" Diameter Precast Catch Basins.....	1,167.79	416.98
33 42 31 00-0158 EA 12' Deep, 1'-6" Diameter Precast Catch Basins.....	1,442.97	529.15
33 42 31 00-0159 EA 14' Deep, 1'-6" Diameter Precast Catch Basins.....	1,652.42	610.56
33 42 31 00-0160 VLF Vertical Linear Foot Over 14' Deep, 1'-6" Diameter Precast Catch Basins.....	115.55	40.70
33 42 31 00-0161 2' Diameter Precast Catch Basins (33 42 31 00-0152)		
33 42 31 00-0162 EA 4' Deep, 2' Diameter Precast Catch Basin.....	622.52	201.26
33 42 31 00-0163 EA 6' Deep, 2' Diameter Precast Catch Basin.....	867.71	298.49
33 42 31 00-0164 EA 8' Deep, 2' Diameter Precast Catch Basin.....	1,100.53	393.47
33 42 31 00-0165 EA 10' Deep, 2' Diameter Precast Catch Basin.....	1,310.57	459.04
33 42 31 00-0166 EA 12' Deep, 2' Diameter Precast Catch Basin.....	1,629.92	587.94
33 42 31 00-0167 EA 14' Deep, 2' Diameter Precast Catch Basin.....	1,864.11	678.40
33 42 31 00-0168 VLF Vertical Linear Foot Over 14' Deep, 2' Diameter Precast Catch Basin.....	130.40	48.84
33 42 31 00-0169 3' Diameter Precast Catch Basins (33 42 31 00-0152)		
33 42 31 00-0170 EA 4' Deep, 3' Diameter Precast Catch Basin.....	812.25	237.43
33 42 31 00-0171 EA 6' Deep, 3' Diameter Precast Catch Basin.....	1,117.31	350.96
33 42 31 00-0172 EA 8' Deep, 3' Diameter Precast Catch Basin.....	1,411.22	463.56
33 42 31 00-0173 EA 10' Deep, 3' Diameter Precast Catch Basin.....	1,757.45	578.90
33 42 31 00-0174 EA 12' Deep, 3' Diameter Precast Catch Basin.....	2,078.67	690.15
33 42 31 00-0175 EA 14' Deep, 3' Diameter Precast Catch Basin.....	2,390.11	803.21
33 42 31 00-0176 VLF Vertical Linear Foot Over 14' Deep, 3' Diameter Precast Catch Basin.....	165.11	57.37
33 42 31 00-0177 4' Diameter Precast Catch Basins (33 42 31 00-0152)		
33 42 31 00-0178 EA 4' Deep, 4' Diameter Precast Catch Basin.....	975.11	264.12
33 42 31 00-0179 EA 6' Deep, 4' Diameter Precast Catch Basin.....	1,274.17	361.82
33 42 31 00-0180 EA 8' Deep, 4' Diameter Precast Catch Basin.....	1,725.04	542.71
33 42 31 00-0181 EA 10' Deep, 4' Diameter Precast Catch Basin.....	2,152.79	678.40
33 42 31 00-0182 EA 12' Deep, 4' Diameter Precast Catch Basin.....	2,548.49	814.07
33 42 31 00-0183 EA 14' Deep, 4' Diameter Precast Catch Basin.....	2,933.66	949.75
33 42 31 00-0184 VLF Vertical Linear Foot Over 14' Deep, 4' Diameter Precast Catch Basin.....	202.20	67.84
33 42 31 00-0185 5' Diameter Precast Catch Basins (33 42 31 00-0152)		

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 31 00-0186 EA 4' Deep, 5' Diameter Precast Catch Basin	1,314.75	361.82
33 42 31 00-0187 EA 6' Deep, 5' Diameter Precast Catch Basin	1,815.22	542.71
33 42 31 00-0188 EA 8' Deep, 5' Diameter Precast Catch Basin	2,318.37	723.62
33 42 31 00-0189 EA 10' Deep, 5' Diameter Precast Catch Basin	2,840.57	904.53
33 42 31 00-0190 EA 12' Deep, 5' Diameter Precast Catch Basin	3,356.42	1,085.43
33 42 31 00-0191 EA 14' Deep, 5' Diameter Precast Catch Basin	3,909.47	1,266.33
33 42 31 00-0192 VLF Vertical Linear Foot Over 14' Deep, 5' Diameter Precast Catch Basin	269.09	90.45
33 42 31 00-0193 6' Diameter Precast Catch Basins (33 42 31 00-0152)		
33 42 31 00-0194 EA 4' Deep, 6' Diameter Precast Catch Basin	1,927.94	542.71
33 42 31 00-0195 EA 6' Deep, 6' Diameter Precast Catch Basin	2,638.67	814.07
33 42 31 00-0196 EA 8' Deep, 6' Diameter Precast Catch Basin	3,394.99	1,085.43
33 42 31 00-0197 EA 10' Deep, 6' Diameter Precast Catch Basin	4,232.46	1,356.79
33 42 31 00-0198 EA 12' Deep, 6' Diameter Precast Catch Basin	5,047.39	1,628.15
33 42 31 00-0199 EA 14' Deep, 6' Diameter Precast Catch Basin	5,846.85	1,899.50
33 42 31 00-0200 VLF Vertical Linear Foot Over 14' Deep, 6' Diameter Precast Catch Basin	401.38	135.68
33 42 31 00-0201 Precast Catch Basins Accessories (33 42 31 00-0152)		
33 42 31 00-0202 EA Single Or Double Wing Slab Top With Throat	1,248.35	587.94
33 42 31 00-0203 EA 4' x 4' Weir Box, Precast Catch Basin	509.31	72.37
33 42 31 00-0204 EA 4' Diameter Inlet Round To Square Adapter, Precast Catch Basin	298.50	76.89
33 42 31 00-0205 EA 3' Diameter, Up To 6" High, Precast Extension Ring	377.29	113.06
For Each Additional Inch In Height, Add	44.02	
33 42 31 00-0206 EA 4' Diameter, Up To 6" High, Precast Extension Ring	445.81	135.68
For Each Additional Inch In Height, Add	51.67	
33 42 31 00-0207 EA 5' Diameter, Up To 6" High, Precast Extension Ring	519.89	158.30
For Each Additional Inch In Height, Add	60.30	
33 42 31 00-0208 EA 6' Diameter, Up To 6" High, Precast Extension Ring	660.00	226.13
For Each Additional Inch In Height, Add	72.35	
33 42 31 00-0209 EA Adjust Existing Catch Basin Inlet Grate To Match Grade	542.68	
33 42 31 00-0210 Catch Basin Risers (33 42 31 00-0152)		
33 42 31 00-0211 EA Up To 860 Square Inch, Up To 2" Rise, Catch Basin Riser	277.36	
33 42 31 00-0212 EA >860 To 1140 Square Inch, Up To 2" Rise, Catch Basin Riser	305.94	
33 42 31 00-0213 EA >1140 Square Inch, Up To 2" Rise, Catch Basin Riser	339.80	
33 42 31 00-0214 EA Up To 860 Square Inch, >2" To 3" Rise, Catch Basin Riser	298.11	
33 42 31 00-0215 EA >860 To 1140 Square Inch, >2" To 3" Rise, Catch Basin Riser	328.61	
33 42 31 00-0216 EA >1140 Square Inch, >2" To 3" Rise, Catch Basin Riser	366.11	
33 42 31 00-0217 EA Up To 860 Square Inch, >3" To 4" Rise, Catch Basin Riser	328.03	
33 42 31 00-0218 EA >860 To 1140 Square Inch, >3" To 4" Rise, Catch Basin Riser	355.26	
33 42 31 00-0219 EA >1140 Square Inch, >3" To 4" Rise, Catch Basin Riser	392.94	
33 42 31 00-0220 Cast In Place, Storm Drain Cleanout (33 42 31 00-0002)		
Note: Inside span.		
33 42 31 00-0221 EA 6' Deep, 4' x 4' x 8" Thick Wall, Cast In Place, Storm Drain Cleanout	3,703.93	655.04
33 42 31 00-0222 EA 6' Deep, 4' x 5' x 8" Thick Wall, Cast In Place, Storm Drain Cleanout	4,220.73	747.53
33 42 31 00-0223 EA 6' Deep, 4' x 6' x 8" Thick Wall, Cast In Place, Storm Drain Cleanout	4,798.24	848.38
33 42 31 00-0224 EA 7' Deep, 4' x 7' x 8" Thick Wall, Cast In Place, Storm Drain Cleanout	5,758.48	1,017.72
33 42 31 00-0225 EA 8' Deep, 4' x 8' x 8" Thick Wall, Cast In Place, Storm Drain Cleanout	6,988.66	1,228.68
33 42 31 00-0226 Precast Concrete Inlet Boxes (33 42 31 00-0002)		
Note: Inside dimensions.		
33 42 31 00-0227 Precast Concrete Inlet Boxes (33 42 31 00-0226)		
33 42 31 00-0228 24" x 24" ID, Precast Concrete Inlet Boxes (33 42 31 00-0227)		
Note: Yard inlet.		
33 42 31 00-0229 24" x 24" ID, Precast Concrete Inlet Boxes (33 42 31 00-0228)		
33 42 31 00-0230 EA 24" Height, 24" x 24" ID, Precast Concrete Inlet Box	624.52	63.32
33 42 31 00-0231 EA 30" Height, 24" x 24" ID, Precast Concrete Inlet Box	734.63	76.89
33 42 31 00-0232 EA 36" Height, 24" x 24" ID, Precast Concrete Inlet Box	844.76	90.45
33 42 31 00-0233 EA 42" Height, 24" x 24" ID, Precast Concrete Inlet Box	956.00	104.59
33 42 31 00-0234 24" x 24" ID, Precast Concrete Inlet Box Risers (33 42 31 00-0228)		
33 42 31 00-0235 EA 6" Height, 24" x 24" ID, Precast Concrete Inlet Box Riser	159.87	
33 42 31 00-0236 EA 12" Height, 24" x 24" ID, Precast Concrete Inlet Box Riser	256.41	
33 42 31 00-0237 EA 18" Height, 24" x 24" ID, Precast Concrete Inlet Box Riser	362.00	
33 42 31 00-0238 EA 24" Height, 24" x 24" ID, Precast Concrete Inlet Box Riser	467.60	
33 42 31 00-0239 EA 30" Height, 24" x 24" ID, Precast Concrete Inlet Box Riser	573.21	
33 42 31 00-0240 EA 36" Height, 24" x 24" ID, Precast Concrete Inlet Box Riser	678.80	
33 42 31 00-0241 22" x 48" ID, Precast Concrete Inlet Boxes (33 42 31 00-0227)		
33 42 31 00-0242 22" x 48" ID, Precast Concrete Inlet Boxes (33 42 31 00-0241)		



Utilities	33	CS
Stormwater Utilities	33 40	
Stormwater Conveyance	33 42	

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
	33 42 31 00-0243	EA	36" Height, 22" x 48" ID, Precast Concrete Inlet Box.....	1,290.68	178.81
	33 42 31 00-0244	EA	42" Height, 22" x 48" ID, Precast Concrete Inlet Box.....	1,452.90	206.75
	33 42 31 00-0245	EA	48" Height, 22" x 48" ID, Precast Concrete Inlet Box.....	1,615.12	234.69
	33 42 31 00-0246	EA	54" Height, 22" x 48" ID, Precast Concrete Inlet Box.....	1,777.47	262.69
	33 42 31 00-0247	EA	60" Height, 22" x 48" ID, Precast Concrete Inlet Box.....	1,939.82	290.70
	33 42 31 00-0248	EA	66" Height, 22" x 48" ID, Precast Concrete Inlet Box.....	2,102.18	318.71
	33 42 31 00-0249	EA	72" Height, 22" x 48" ID, Precast Concrete Inlet Box.....	2,264.52	346.71
	33 42 31 00-0250		22" x 48" ID, Precast Concrete Inlet Box Risers (33 42 31 00-0241)		
	33 42 31 00-0251	EA	6" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser.....	313.25	
	33 42 31 00-0252	EA	12" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser.....	499.90	
	33 42 31 00-0253	EA	18" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser.....	545.15	
	33 42 31 00-0254	EA	24" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser.....	696.72	
	33 42 31 00-0255	EA	30" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser.....	848.28	
	33 42 31 00-0256	EA	36" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser.....	995.66	
	33 42 31 00-0257	EA	42" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser.....	1,157.88	
	33 42 31 00-0258	EA	48" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser.....	1,320.10	
	33 42 31 00-0259	EA	54" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser.....	1,482.46	
	33 42 31 00-0260	EA	60" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser.....	1,644.81	
	33 42 31 00-0261	EA	66" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser.....	1,807.17	
	33 42 31 00-0262	EA	72" Height, 22" x 48" ID, Precast Concrete Inlet Box Riser.....	1,969.51	
	33 42 31 00-0263		30" x 48" ID, Precast Concrete Inlet Boxes (33 42 31 00-0227)		
	33 42 31 00-0264		30" x 48" ID, Precast Concrete Inlet Boxes (33 42 31 00-0263)		
	33 42 31 00-0265	EA	36" Height, 30" x 48" ID, Precast Concrete Inlet Box.....	1,248.75	196.69
	33 42 31 00-0266	EA	42" Height, 30" x 48" ID, Precast Concrete Inlet Box.....	1,411.72	227.42
	33 42 31 00-0267	EA	48" Height, 30" x 48" ID, Precast Concrete Inlet Box.....	1,574.68	258.16
	33 42 31 00-0268	EA	54" Height, 30" x 48" ID, Precast Concrete Inlet Box.....	1,737.79	288.97
	33 42 31 00-0269	EA	60" Height, 30" x 48" ID, Precast Concrete Inlet Box.....	1,900.91	319.77
	33 42 31 00-0270	EA	66" Height, 30" x 48" ID, Precast Concrete Inlet Box.....	2,064.03	350.58
	33 42 31 00-0271	EA	72" Height, 30" x 48" ID, Precast Concrete Inlet Box.....	2,227.15	381.38
	33 42 31 00-0272		30" x 48" ID, Precast Concrete Inlet Box Risers (33 42 31 00-0263)		
	33 42 31 00-0273	EA	6" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	312.29	
	33 42 31 00-0274	EA	12" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	492.24	
	33 42 31 00-0275	EA	18" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	538.75	
	33 42 31 00-0276	EA	24" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	687.64	
	33 42 31 00-0277	EA	30" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	836.52	
	33 42 31 00-0278	EA	36" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	984.52	
	33 42 31 00-0279	EA	42" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	1,145.02	
	33 42 31 00-0280	EA	48" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	1,304.64	
	33 42 31 00-0281	EA	54" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	1,465.15	
	33 42 31 00-0282	EA	60" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	1,624.77	
	33 42 31 00-0283	EA	66" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	1,785.27	
	33 42 31 00-0284	EA	72" Height, 30" x 48" ID, Precast Concrete Inlet Box Riser.....	1,945.78	
	33 42 31 00-0285		42" x 48" ID, Precast Concrete Inlet Boxes (33 42 31 00-0227)		
	33 42 31 00-0286		42" x 48" ID, Precast Concrete Inlet Boxes (33 42 31 00-0285)		
	33 42 31 00-0287	EA	36" Height, 42" x 48" ID, Precast Concrete Inlet Box.....	1,481.96	214.57
	33 42 31 00-0288	EA	42" Height, 42" x 48" ID, Precast Concrete Inlet Box.....	1,673.23	249.44
	33 42 31 00-0289	EA	48" Height, 42" x 48" ID, Precast Concrete Inlet Box.....	1,864.50	285.20
	33 42 31 00-0290	EA	54" Height, 42" x 48" ID, Precast Concrete Inlet Box.....	2,054.88	320.08
	33 42 31 00-0291	EA	60" Height, 42" x 48" ID, Precast Concrete Inlet Box.....	2,246.15	355.83
	33 42 31 00-0292	EA	66" Height, 42" x 48" ID, Precast Concrete Inlet Box.....	2,437.43	390.70
	33 42 31 00-0293	EA	72" Height, 42" x 48" ID, Precast Concrete Inlet Box.....	2,627.80	425.57
	33 42 31 00-0294		42" x 48" ID, Precast Concrete Inlet Box Risers (33 42 31 00-0285)		
	33 42 31 00-0295	EA	6" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	343.68	
	33 42 31 00-0296	EA	12" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	553.25	
	33 42 31 00-0297	EA	18" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	601.09	
	33 42 31 00-0298	EA	24" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	769.56	
	33 42 31 00-0299	EA	30" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	938.03	
	33 42 31 00-0300	EA	36" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	1,106.51	
	33 42 31 00-0301	EA	42" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	1,287.06	
	33 42 31 00-0302	EA	48" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	1,467.60	
	33 42 31 00-0303	EA	54" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	1,648.14	
	33 42 31 00-0304	EA	60" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	1,828.69	
	33 42 31 00-0305	EA	66" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	2,009.23	
	33 42 31 00-0306	EA	72" Height, 42" x 48" ID, Precast Concrete Inlet Box Riser.....	2,189.78	
	33 42 31 00-0307		42" x 48" ID, Precast Concrete Inlet Box Tops (33 42 31 00-0285)		
	33 42 31 00-0308	EA	42" x 48" ID, Precast Concrete Inlet Box Top Slab.....	842.78	134.11

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 31 00-0309 48" x 54" ID, Precast Concrete Inlet Boxes (33 42 31 00-0227)		
33 42 31 00-0310 48" x 54" ID, Precast Concrete Inlet Boxes (33 42 31 00-0309)		
33 42 31 00-0311 EA 36" Height, 48" x 54" ID, Precast Concrete Inlet Box	2,091.51	238.41
33 42 31 00-0312 EA 42" Height, 48" x 54" ID, Precast Concrete Inlet Box	2,345.82	277.60
33 42 31 00-0313 EA 48" Height, 48" x 54" ID, Precast Concrete Inlet Box	2,600.11	316.79
33 42 31 00-0314 EA 54" Height, 48" x 54" ID, Precast Concrete Inlet Box	2,854.12	355.83
33 42 31 00-0315 EA 60" Height, 48" x 54" ID, Precast Concrete Inlet Box	3,108.14	394.88
33 42 31 00-0316 EA 66" Height, 48" x 54" ID, Precast Concrete Inlet Box	3,362.15	433.92
33 42 31 00-0317 EA 72" Height, 48" x 54" ID, Precast Concrete Inlet Box	3,616.15	472.97
33 42 31 00-0318 48" x 54" ID, Precast Concrete Inlet Box Risers (33 42 31 00-0309)		
33 42 31 00-0319 EA 6" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	345.78	
33 42 31 00-0320 EA 12" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	545.55	
33 42 31 00-0321 EA 18" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	795.98	
33 42 31 00-0322 EA 24" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	1,046.40	
33 42 31 00-0323 EA 30" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	1,281.93	
33 42 31 00-0324 EA 36" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	1,532.34	
33 42 31 00-0325 EA 42" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	1,786.65	
33 42 31 00-0326 EA 48" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	2,040.94	
33 42 31 00-0327 EA 54" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	2,294.95	
33 42 31 00-0328 EA 60" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	2,548.97	
33 42 31 00-0329 EA 66" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	2,802.98	
33 42 31 00-0330 EA 72" Height, 48" x 54" ID, Precast Concrete Inlet Box Riser	3,056.97	
33 42 31 00-0331 48" x 54" ID, Precast Concrete Inlet Box Tops (33 42 31 00-0309)		
33 42 31 00-0332 EA 48" x 54" ID, Precast Concrete Inlet Box Top Slab	915.88	145.28
33 42 31 00-0333 48" x 66" ID, Precast Concrete Inlet Boxes (33 42 31 00-0227)		
33 42 31 00-0334 48" x 66" ID, Precast Concrete Inlet Boxes (33 42 31 00-0333)		
33 42 31 00-0335 EA 36" Height, 48" x 66" ID, Precast Concrete Inlet Box	2,415.40	300.40
33 42 31 00-0336 EA 42" Height, 48" x 66" ID, Precast Concrete Inlet Box	2,696.21	350.59
33 42 31 00-0337 EA 48" Height, 48" x 66" ID, Precast Concrete Inlet Box	2,976.99	400.78
33 42 31 00-0338 EA 54" Height, 48" x 66" ID, Precast Concrete Inlet Box	3,257.23	450.70
33 42 31 00-0339 EA 60" Height, 48" x 66" ID, Precast Concrete Inlet Box	3,537.47	500.60
33 42 31 00-0340 EA 66" Height, 48" x 66" ID, Precast Concrete Inlet Box	3,817.71	550.52
33 42 31 00-0341 EA 72" Height, 48" x 66" ID, Precast Concrete Inlet Box	4,097.95	600.43
33 42 31 00-0342 48" x 66" ID, Precast Concrete Inlet Box Risers (33 42 31 00-0333)		
33 42 31 00-0343 EA 6" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	380.68	
33 42 31 00-0344 EA 12" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	586.14	
33 42 31 00-0345 EA 18" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	866.68	
33 42 31 00-0346 EA 24" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	1,147.22	
33 42 31 00-0347 EA 30" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	1,402.73	
33 42 31 00-0348 EA 36" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	1,683.28	
33 42 31 00-0349 EA 42" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	1,964.08	
33 42 31 00-0350 EA 48" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	2,244.86	
33 42 31 00-0351 EA 54" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	2,525.10	
33 42 31 00-0352 EA 60" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	2,805.35	
33 42 31 00-0353 EA 66" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	3,085.58	
33 42 31 00-0354 EA 72" Height, 48" x 66" ID, Precast Concrete Inlet Box Riser	3,365.82	
33 42 31 00-0355 48" x 66" ID, Precast Concrete Inlet Box Tops (33 42 31 00-0333)		
33 42 31 00-0356 EA 48" x 66" ID, Precast Concrete Inlet Box Top Slab	1,018.45	162.72
33 42 31 00-0357 42" x 102" ID, Precast Concrete Inlet Boxes (33 42 31 00-0227)		
33 42 31 00-0358 42" x 102" ID, Precast Concrete Inlet Boxes (33 42 31 00-0357)		
33 42 31 00-0359 EA 36" Height, 42" x 102" ID, Precast Concrete Inlet Box	3,030.01	405.01
33 42 31 00-0360 EA 42" Height, 42" x 102" ID, Precast Concrete Inlet Box	3,385.81	472.06
33 42 31 00-0361 EA 48" Height, 42" x 102" ID, Precast Concrete Inlet Box	3,741.63	538.22
33 42 31 00-0362 EA 54" Height, 42" x 102" ID, Precast Concrete Inlet Box	4,096.55	605.28
33 42 31 00-0363 EA 60" Height, 42" x 102" ID, Precast Concrete Inlet Box	4,452.37	671.43
33 42 31 00-0364 EA 66" Height, 42" x 102" ID, Precast Concrete Inlet Box	4,807.29	737.59
33 42 31 00-0365 EA 72" Height, 42" x 102" ID, Precast Concrete Inlet Box	5,163.99	804.65
33 42 31 00-0366 42" x 102" ID, Precast Concrete Inlet Box Risers (33 42 31 00-0357)		
33 42 31 00-0367 EA 6" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser	511.38	
33 42 31 00-0368 EA 12" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser	774.21	
33 42 31 00-0369 EA 18" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser	1,123.77	



	Utilities	33	
	Stormwater Utilities	33 40	CS
	Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 31 00-0370 EA 24" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser.....	1,473.32	
33 42 31 00-0371 EA 30" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser.....	1,796.95	
33 42 31 00-0372 EA 36" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser.....	2,146.51	
33 42 31 00-0373 EA 42" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser.....	2,502.31	
33 42 31 00-0374 EA 48" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser.....	2,858.13	
33 42 31 00-0375 EA 54" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser.....	3,213.05	
33 42 31 00-0376 EA 60" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser.....	3,568.87	
33 42 31 00-0377 EA 66" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser.....	3,923.79	
33 42 31 00-0378 EA 72" Height, 42" x 102" ID, Precast Concrete Inlet Box Riser.....	4,279.60	
33 42 31 00-0379 42" x 102" ID, Precast Concrete Inlet Box Tops (33 42 31 00-0357)		
33 42 31 00-0380 EA 42" x 102" ID, Precast Concrete Inlet Box Top Slab	1,381.78	178.81
33 42 31 00-0381 Frames And Grates For Inlets (33 42 31 00-0226)		
33 42 31 00-0382 Inlet Frames And Grates (33 42 31 00-0381)		
33 42 31 00-0383 EA 24" x 24", Heavy Duty Inlet Grate	262.97	42.34
Note: For type A, B, D, or E inlets.		
33 42 31 00-0384 EA 47-3/4" x 21-3/4", Bicycle Safe Inlet Grate (US Foundry 6352 GRT).....	334.18	42.34
Note: For type A, B, D, or E inlets.		
33 42 31 00-0385 EA 47-3/4" x 21-3/4", Phase II Stormwater Compliant Inlet Grate (US Foundry 6352 GRT).....	334.18	42.34
Note: Includes legend: Dump No Waste "Drains To Waterways".		
33 42 31 00-0386 EA Phase II Storm Water Compliant Grate, Echo Grate, Type "B" And "D" Inlet Covers (US Foundry 6352 GRT.....	334.18	42.34
Note: Legend: Dump No Waste "Drains to Waterways"		
33 42 31 00-0387 EA Parallel Bar Grates For Type A, B, D And E Inlets (Campbell Foundry 2617-0362).....	363.89	42.34
33 42 31 00-0388 EA Type B Inlet Dirt Plate (US Foundry 5217 BK).....	300.05	84.68
33 42 31 00-0389 EA Back Plate For Type B Inlets (Campbell Foundry 2548-1942).....	341.64	84.68
33 42 31 00-0390 EA Phase II Echo-Safe Bar For Series 2500/2600 Curb Inlets (Campbell Foundry 25419EC4).....	425.56	105.85
Note: Includes cam action clamping system, stainless steel badge labeled to center of plate, steel plate welded to bar with legend: Dump No Waste "Drains to Waterways".		
33 42 31 00-0391 EA 1-1/2" Catch Basin Riser For Type B And D Inlets (General Foundries 6352 EXT).....	372.09	105.85
33 42 31 00-0392 EA 2" Catch Basin Riser For Type B And D Inlets (General Foundries 6352 EXT).....	378.04	105.85
33 42 31 00-0393 EA 2-1/2" Catch Basin Riser For Type B And D Inlets (General Foundries 6352 EXT).....	389.92	105.85
33 42 31 00-0394 EA 3" Catch Basin Riser For Type B And D Inlets (General Foundries 6352 EXT).....	401.80	105.85
33 42 31 00-0395 EA 2" Extension Frame For Type A Inlet (General Foundries 6352 EXT).....	389.92	105.85
33 42 31 00-0396 EA 2-1/2" Extension Frame For Type A Inlet (General Foundries 6352 EXT).....	401.80	105.85
33 42 31 00-0397 EA 3" Extension Frame For Type A Inlet (General Foundries 6352 EXT).....	413.68	105.85
33 42 31 00-0398 EA 2" Extension Frame For Type E Inlet (General Foundries 6352 EXT).....	568.13	105.85
33 42 31 00-0399 EA 2-1/2" Extension Frame For Type E Inlet (General Foundries 6352 EXT).....	591.90	105.85
33 42 31 00-0400 EA 3" Extension Frame For Type E Inlet (General Foundries 6352 EXT).....	615.66	105.85
33 42 31 00-0401 EA 2", 3 Sided Extension Frame For Type A, B, D, And E Inlet (Campbell Foundry 2701).....	437.44	105.85
33 42 31 00-0402 EA 6" Type N Curb Back Piece For Type B And D Inlets (US Foundry 5218N6).....	401.80	105.85
33 42 31 00-0403 EA 8" Type N Curb Back Piece For Type B And D Inlets (US Foundry 5218N8).....	401.80	105.85
33 42 31 00-0404 EA 6" Radius Curb Back Piece For Type B And D Inlets (Campbell Foundry BSCB-6).....	758.15	105.85
33 42 31 00-0405 EA 8" Radius Curb Back Piece For Type B And D Inlets (Campbell Foundry BSCB-8).....	758.15	105.85
33 42 31 00-0406 EA Safety Bars For Type B And D Inlets (General Foundries 5218 SB).....	351.68	116.44
33 42 31 00-0407 EA 6", Phase II Echo-Safe Catch Basin Curb Inlet Cover (Campbell Foundry ERSS 648).....	464.55	116.44
Note: Includes cam action clamping system and stainless steel badge labeled to center of plate.		
33 42 31 00-0408 EA 8", Phase II Echo-Safe Catch Basin Curb Inlet Cover (Campbell Foundry ERSS 848).....	464.55	116.44
Note: Includes cam action clamping system and stainless steel badge labeled to center of plate.		
33 42 31 00-0409 EA 10", Phase II Echo-Safe Catch Basin Curb Inlet Cover (Campbell Foundry ERSS 1048).....	506.14	116.44
Note: Includes cam action clamping system and stainless steel badge labeled to center of plate.		
33 42 31 00-0410 EA Type B Inlet Frame (US Foundry 5216 FRM).....	571.48	116.44
33 42 31 00-0411 EA Type D Inlet Frame (US Foundry 2999 FRM).....	500.19	116.44
33 42 31 00-0412 EA Type B Inlet Frame (Campbell Foundry 2618-0202).....	684.35	116.44
33 42 31 00-0413 EA Type D Inlet Frame (Campbell Foundry 2617-0002).....	613.07	116.44
33 42 31 00-0414 EA Type A Inlet, Single Frame And Grate (US Foundry 52340).....	802.09	169.36
33 42 31 00-0415 EA Type E Inlet, Single Frame And Grate (US Foundry 52342).....	1,229.81	169.36
33 42 31 00-0416 EA Type A Inlet, Single Frame And Grate (General Foundries 52340).....	784.27	169.36
33 42 31 00-0417 EA Type E Inlet, Double Frame And Grate (General Foundries 52342).....	1,173.97	169.36
33 42 31 00-0418 EA Oversized Type A Inlet, Single Frame And Reticuline Grate (US Foundry 82340).....	1,298.18	254.04
33 42 31 00-0419 EA Heavy Duty Rectangular Frame And Grate (Campbell Foundry 3084).....	1,376.41	338.73
33 42 31 00-0420 EA 6" Curb Piece, Type B Inlet Frame And Grate (US Foundry 52186).....	1,491.32	338.73
33 42 31 00-0421 EA 8" Curb Piece, Type B Inlet Frame And Grate (US Foundry 52198).....	1,491.32	338.73
33 42 31 00-0422 EA 6" Curb Piece, Type D Inlet Frame And Grate (US Foundry 72266).....	1,342.80	338.73
33 42 31 00-0423 EA 8" Curb Piece, Type D Inlet Frame And Grate (US Foundry 72268).....	1,342.80	338.73
33 42 31 00-0424 EA Type B And C Inlet Frame And Grate With Type N Curb And Back Plate (Campbell Foundry GFI 52198).....	1,538.84	338.73
33 42 31 00-0425 Concrete Drainage Inlet Structures (CALTRANS) (33 42 31 00-0001)		
33 42 31 00-0426 Type OS Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0427 EA 3' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,000.07	
33 42 31 00-0428 EA 4' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,322.88	
33 42 31 00-0429 EA 5' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,622.32	
33 42 31 00-0430 EA 6' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,898.37	
33 42 31 00-0431 EA 7' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,151.04	
33 42 31 00-0432 EA 8' Deep Type OS Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,380.33	
33 42 31 00-0433 EA 8' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,599.65	
33 42 31 00-0434 EA 10' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,361.29	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 31 00-0435 EA 12' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness	6,063.84	
33 42 31 00-0436 EA 14' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness	6,709.08	
33 42 31 00-0437 EA 16' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness	7,328.58	
33 42 31 00-0438 EA 18' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness	7,897.37	
33 42 31 00-0439 EA 20' Deep Type OS Concrete Drainage Inlet Structure, 8" Wall Thickness	8,415.45	
33 42 31 00-0440 Type OL-7 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0441 EA 3' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,723.50	
33 42 31 00-0442 EA 4' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,024.95	
33 42 31 00-0443 EA 5' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,303.02	
33 42 31 00-0444 EA 6' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,557.70	
33 42 31 00-0445 EA 7' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,788.10	
33 42 31 00-0446 EA 8' Deep Type OL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,996.03	
33 42 31 00-0447 EA 8' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	5,179.14	
33 42 31 00-0448 EA 10' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	5,922.85	
33 42 31 00-0449 EA 12' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	6,607.48	
33 42 31 00-0450 EA 14' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,233.88	
33 42 31 00-0451 EA 16' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,837.78	
33 42 31 00-0452 EA 18' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,390.96	
33 42 31 00-0453 EA 20' Deep Type OL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,893.42	
33 42 31 00-0454 Type OL-10 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0455 EA 3' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,390.19	
33 42 31 00-0456 EA 4' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,672.14	
33 42 31 00-0457 EA 5' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,929.81	
33 42 31 00-0458 EA 6' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,165.01	
33 42 31 00-0459 EA 7' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,375.92	
33 42 31 00-0460 EA 8' Deep Type OL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,563.45	
33 42 31 00-0461 EA 8' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	5,758.63	
33 42 31 00-0462 EA 10' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	6,483.52	
33 42 31 00-0463 EA 12' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,151.10	
33 42 31 00-0464 EA 14' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,759.59	
33 42 31 00-0465 EA 16' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,346.98	
33 42 31 00-0466 EA 18' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,884.54	
33 42 31 00-0467 EA 20' Deep Type OL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,370.50	
33 42 31 00-0468 Type OL-14 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0469 EA 3' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,340.58	
33 42 31 00-0470 EA 4' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,593.68	
33 42 31 00-0471 EA 5' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,823.41	
33 42 31 00-0472 EA 6' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness	5,029.77	
33 42 31 00-0473 EA 7' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness	5,212.73	
33 42 31 00-0474 EA 8' Deep Type OL-14 Concrete Drainage Inlet Structure, 6" Wall Thickness	5,372.31	
33 42 31 00-0475 EA 8' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness	6,579.56	
33 42 31 00-0476 EA 10' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,278.98	
33 42 31 00-0477 EA 12' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,920.20	
33 42 31 00-0478 EA 14' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,503.21	
33 42 31 00-0479 EA 16' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,069.31	
33 42 31 00-0480 EA 18' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,583.79	
33 42 31 00-0481 EA 20' Deep Type OL-14 Concrete Drainage Inlet Structure, 8" Wall Thickness	10,047.56	
33 42 31 00-0482 Type OL-21 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0483 EA 3' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness	6,269.73	
33 42 31 00-0484 EA 4' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness	6,465.57	
33 42 31 00-0485 EA 5' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness	6,638.02	
33 42 31 00-0486 EA 6' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness	6,787.09	
33 42 31 00-0487 EA 7' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness	6,911.87	
33 42 31 00-0488 EA 8' Deep Type OL-21 Concrete Drainage Inlet Structure, 6" Wall Thickness	7,014.17	
33 42 31 00-0489 EA 8' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,185.22	
33 42 31 00-0490 EA 10' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,834.42	
33 42 31 00-0491 EA 12' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,425.41	
33 42 31 00-0492 EA 14' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,958.22	
33 42 31 00-0493 EA 16' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness	10,480.53	
33 42 31 00-0494 EA 18' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness	10,951.22	
33 42 31 00-0495 EA 20' Deep Type OL-21 Concrete Drainage Inlet Structure, 8" Wall Thickness	11,371.18	
33 42 31 00-0496 Type GOL-7 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0497 EA 3' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,305.08	
33 42 31 00-0498 EA 4' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,637.74	
33 42 31 00-0499 EA 5' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,943.52	
33 42 31 00-0500 EA 6' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,222.42	
33 42 31 00-0501 EA 7' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,475.34	
33 42 31 00-0502 EA 8' Deep Type GOL-7 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,702.28	
33 42 31 00-0503 EA 8' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	5,988.01	
33 42 31 00-0504 EA 10' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness	6,816.25	



Utilities	33	33
Stormwater Utilities	33 40	
Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 31 00-0505 EA 12' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,579.05	
33 42 31 00-0506 EA 14' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,275.49	
33 42 31 00-0507 EA 16' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,948.13	
33 42 31 00-0508 EA 18' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	9,563.68	
33 42 31 00-0509 EA 20' Deep Type GOL-7 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	10,121.27	
33 42 31 00-0510 Type GOL-10 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0511 EA 3' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,028.51	
33 42 31 00-0512 EA 4' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,338.91	
33 42 31 00-0513 EA 5' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,623.32	
33 42 31 00-0514 EA 6' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	4,881.74	
33 42 31 00-0515 EA 7' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	5,113.31	
33 42 31 00-0516 EA 8' Deep Type GOL-10 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	5,317.98	
33 42 31 00-0517 EA 8' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,603.71	
33 42 31 00-0518 EA 10' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,412.40	
33 42 31 00-0519 EA 12' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,155.65	
33 42 31 00-0520 EA 14' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,833.43	
33 42 31 00-0521 EA 16' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	9,488.97	
33 42 31 00-0522 EA 18' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	10,087.44	
33 42 31 00-0523 EA 20' Deep Type GOL-10 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	10,628.85	
33 42 31 00-0524 Type G-1 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0525 EA 3' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,347.57	
33 42 31 00-0526 EA 4' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,610.57	
33 42 31 00-0527 EA 5' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,853.89	
33 42 31 00-0528 EA 6' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,079.37	
33 42 31 00-0529 EA 7' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,286.96	
33 42 31 00-0530 EA 8' Deep Type G-1 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,474.88	
33 42 31 00-0531 Type G-2 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0532 EA 3' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,858.23	
33 42 31 00-0533 EA 4' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,153.64	
33 42 31 00-0534 EA 5' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,427.70	
33 42 31 00-0535 EA 6' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,680.40	
33 42 31 00-0536 EA 7' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,911.71	
33 42 31 00-0537 EA 8' Deep Type G-2 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,120.77	
33 42 31 00-0538 EA 8' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,225.41	
33 42 31 00-0539 EA 10' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,928.07	
33 42 31 00-0540 EA 12' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,577.25	
33 42 31 00-0541 EA 14' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,172.93	
33 42 31 00-0542 EA 16' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,744.93	
33 42 31 00-0543 EA 18' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,270.34	
33 42 31 00-0544 EA 20' Deep Type G-2 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,748.25	
33 42 31 00-0545 Type G-3 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0546 EA 3' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,461.06	
33 42 31 00-0547 EA 4' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,720.30	
33 42 31 00-0548 EA 5' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,960.80	
33 42 31 00-0549 EA 6' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,183.42	
33 42 31 00-0550 EA 7' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,386.37	
33 42 31 00-0551 EA 8' Deep Type G-3 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,571.47	
33 42 31 00-0552 Type G-4_24 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0553 EA 3' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,801.49	
33 42 31 00-0554 EA 4' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,098.77	
33 42 31 00-0555 EA 5' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,374.70	
33 42 31 00-0556 EA 6' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,628.35	
33 42 31 00-0557 EA 7' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,861.55	
33 42 31 00-0558 EA 8' Deep Type G-4_24 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,072.48	
33 42 31 00-0559 EA 8' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,201.27	
33 42 31 00-0560 EA 10' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,905.32	
33 42 31 00-0561 EA 12' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,554.98	
33 42 31 00-0562 EA 14' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,151.15	
33 42 31 00-0563 EA 16' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,723.53	
33 42 31 00-0564 EA 18' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,249.31	
33 42 31 00-0565 EA 20' Deep Type G-4_24 Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,728.53	
33 42 31 00-0566 Type G-4_18 Concrete Drainage Inlet Structure (33 42 31 00-0425)		
33 42 31 00-0567 EA 3' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	1,858.23	
33 42 31 00-0568 EA 4' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,153.64	
33 42 31 00-0569 EA 5' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,427.70	
33 42 31 00-0570 EA 6' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,680.40	
33 42 31 00-0571 EA 7' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,911.71	
33 42 31 00-0572 EA 8' Deep Type G-4_18 Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,120.77	

33 Utilities**33 40 Stormwater Utilities****33 42 Stormwater Conveyance**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 42 31 00-0573	EA	8' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness	4,225.41
33 42 31 00-0574	EA	10' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness	4,928.07
33 42 31 00-0575	EA	12' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness	5,577.25
33 42 31 00-0576	EA	14' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness	6,172.93
33 42 31 00-0577	EA	16' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness	6,744.93
33 42 31 00-0578	EA	18' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,270.34
33 42 31 00-0579	EA	20' Deep Type G-4_18 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,748.25
33 42 31 00-0580		Type G-5 Concrete Drainage Inlet Structure (33 42 31 00-0425)	
33 42 31 00-0581	EA	3' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness	1,446.85
33 42 31 00-0582	EA	4' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness	1,706.36
33 42 31 00-0583	EA	5' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness	1,948.00
33 42 31 00-0584	EA	6' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,169.96
33 42 31 00-0585	EA	7' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,374.07
33 42 31 00-0586	EA	8' Deep Type G-5 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,559.39
33 42 31 00-0587		Type G-6 Concrete Drainage Inlet Structure (33 42 31 00-0425)	
33 42 31 00-0588	EA	3' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness	1,475.24
33 42 31 00-0589	EA	4' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness	1,734.24
33 42 31 00-0590	EA	5' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness	1,974.50
33 42 31 00-0591	EA	6' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,195.97
33 42 31 00-0592	EA	7' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,398.68
33 42 31 00-0593	EA	8' Deep Type G-6 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,583.54
33 42 31 00-0594		Type GT1 Concrete Drainage Inlet Structure (33 42 31 00-0425)	
33 42 31 00-0595	EA	3' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,468.18
33 42 31 00-0596	EA	4' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,873.38
33 42 31 00-0597	EA	5' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,276.10
33 42 31 00-0598	EA	6' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,596.28
33 42 31 00-0599	EA	7' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,913.07
33 42 31 00-0600	EA	8' Deep Type GT1 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,201.27
33 42 31 00-0601		Type GT2 Concrete Drainage Inlet Structure (33 42 31 00-0425)	
33 42 31 00-0602	EA	3' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,993.01
33 42 31 00-0603	EA	4' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,434.09
33 42 31 00-0604	EA	5' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,842.10
33 42 31 00-0605	EA	6' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,217.93
33 42 31 00-0606	EA	7' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,560.70
33 42 31 00-0607	EA	8' Deep Type GT2 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,871.29
33 42 31 00-0608	EA	8' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness	6,519.21
33 42 31 00-0609	EA	10' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,555.11
33 42 31 00-0610	EA	12' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,510.87
33 42 31 00-0611	EA	14' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,387.37
33 42 31 00-0612	EA	16' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness	10,230.30
33 42 31 00-0613	EA	18' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness	11,003.31
33 42 31 00-0614	EA	20' Deep Type GT2 Concrete Drainage Inlet Structure, 8" Wall Thickness	11,706.41
33 42 31 00-0615		Type GT3 Concrete Drainage Inlet Structure (33 42 31 00-0425)	
33 42 31 00-0616	EA	3' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,454.00
33 42 31 00-0617	EA	4' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness	2,859.44
33 42 31 00-0618	EA	5' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,236.32
33 42 31 00-0619	EA	6' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,583.72
33 42 31 00-0620	EA	7' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,900.75
33 42 31 00-0621	EA	8' Deep Type GT3 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,189.19
33 42 31 00-0622		Type GT4 Concrete Drainage Inlet Structure (33 42 31 00-0425)	
33 42 31 00-0623	EA	3' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,092.32
33 42 31 00-0624	EA	4' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,529.89
33 42 31 00-0625	EA	5' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness	3,935.30
33 42 31 00-0626	EA	6' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,307.63
33 42 31 00-0627	EA	7' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,647.80
33 42 31 00-0628	EA	8' Deep Type GT4 Concrete Drainage Inlet Structure, 6" Wall Thickness	4,955.80
33 42 31 00-0629	EA	8' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness	6,531.27
33 42 31 00-0630	EA	10' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness	7,566.94
33 42 31 00-0631	EA	12' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness	8,522.46
33 42 31 00-0632	EA	14' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness	9,397.82
33 42 31 00-0633	EA	16' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness	10,240.55
33 42 31 00-0634	EA	18' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness	11,013.37
33 42 31 00-0635	EA	20' Deep Type GT4 Concrete Drainage Inlet Structure, 8" Wall Thickness	11,716.27
33 42 31 00-0636		Type GO Concrete Drainage Inlet Structure (33 42 31 00-0425)	
33 42 31 00-0637	EA	3' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness	1,758.92
33 42 31 00-0638	EA	4' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness	2,043.91



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MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
	33 42 31 00-0639	EA	5' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,308.00	
	33 42 31 00-0640	EA	6' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,551.21	
	33 42 31 00-0641	EA	7' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,773.54	
	33 42 31 00-0642	EA	8' Deep Type GO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,975.89	
	33 42 31 00-0643	EA	8' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,092.62	
	33 42 31 00-0644	EA	10' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	4,774.43	
	33 42 31 00-0645	EA	12' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,402.93	
	33 42 31 00-0646	EA	14' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,979.90	
	33 42 31 00-0647	EA	16' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,535.10	
	33 42 31 00-0648	EA	18' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,043.67	
	33 42 31 00-0649	EA	20' Deep Type GO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,507.38	
	33 42 31 00-0650		Type GDO Concrete Drainage Inlet Structure (33 42 31 00-0425)		
	33 42 31 00-0651	EA	3' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,297.95	
	33 42 31 00-0652	EA	4' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	2,672.53	
	33 42 31 00-0653	EA	5' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,019.77	
	33 42 31 00-0654	EA	6' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,340.62	
	33 42 31 00-0655	EA	7' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,633.24	
	33 42 31 00-0656	EA	8' Deep Type GDO Concrete Drainage Inlet Structure, 6" Wall Thickness.....	3,899.45	
	33 42 31 00-0657	EA	8' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	5,263.65	
	33 42 31 00-0658	EA	10' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,142.39	
	33 42 31 00-0659	EA	12' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	6,953.61	
	33 42 31 00-0660	EA	14' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	7,698.22	
	33 42 31 00-0661	EA	16' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	8,413.60	
	33 42 31 00-0662	EA	18' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	9,070.10	
	33 42 31 00-0663	EA	20' Deep Type GDO Concrete Drainage Inlet Structure, 8" Wall Thickness.....	9,667.70	
	33 42 31 00-0664		Catch Basin Frames And Covers (33 42 31 00-0001)		
	33 42 31 00-0665		Cast Iron Frames And Covers (33 42 31 00-0664)		
	33 42 31 00-0666	EA	18" Diameter Cast Iron Catch Basin Frame And Cover.....	392.81	90.45
	33 42 31 00-0667	EA	22" Diameter Cast Iron Catch Basin Frame And Cover.....	484.51	102.22
	33 42 31 00-0668	EA	24" Diameter Cast Iron Catch Basin Frame And Cover.....	537.90	105.83
	33 42 31 00-0669	EA	26" Diameter Cast Iron Catch Basin Frame And Cover.....	602.01	123.01
	33 42 31 00-0670	EA	28" Diameter Cast Iron Catch Basin Frame And Cover.....	691.98	140.20
	33 42 31 00-0671	EA	32" Diameter Cast Iron Catch Basin Frame And Cover.....	1,053.23	146.53
	33 42 31 00-0672	EA	16" x 16" Cast Iron Catch Basin Frame And Cover.....	590.03	111.26
	33 42 31 00-0673	EA	18" x 24" Cast Iron Catch Basin Frame And Cover.....	753.53	128.45
	33 42 31 00-0674	EA	20" x 27" Cast Iron Catch Basin Frame And Cover.....	841.81	133.87
	33 42 31 00-0675	EA	23" x 23" Cast Iron Catch Basin Frame And Cover.....	802.17	133.87
	33 42 31 00-0676	EA	24" x 24" Cast Iron Catch Basin Frame And Cover.....	830.10	139.30
	33 42 31 00-0677	EA	26" x 26" Cast Iron Catch Basin Frame And Cover.....	887.07	144.72
	33 42 31 00-0678	EA	24" x 36" Cast Iron Catch Basin Frame And Cover.....	1,049.74	155.58
	33 42 31 00-0679		Area Yard Drain (33 42 31 00-0001)		
			See CSI section 22 14 26 16-0001 for drains.		
	33 42 31 00-0680		Ductile Iron Grates (33 42 31 00-0679)		
			Note: Not for traffic loading.		
	33 42 31 00-0681	EA	8" Diameter Ductile Iron Grate Adapter Necks Down To 4" and 6" Diameter Pipe.....	133.95	31.75
	33 42 31 00-0682	EA	10" Diameter Ductile Iron Grate Adapters To 4", 6", or 8" Diameter Pipe.....	164.11	33.86
	33 42 31 00-0683	EA	12" Diameter Ductile Iron Grate Adapters To 4" Through 12" Diameter Pipe.....	381.18	42.33
	33 42 31 00-0684	EA	15" Diameter Ductile Iron Grate Adapters To 4" Through 12" Diameter Pipe.....	455.46	50.79
	33 42 33		Stormwater Curbside Drains and Inlets (33 42)		
	33 42 33 00-0001		Curb Inlet Frames And Covers (33 42 33)		
	33 42 33 00-0002		Cast Iron Curb Inlet Frames And Covers (33 42 33 00-0001)		
	33 42 33 00-0003	EA	20" x 22" Cast Iron Curb Inlet Frame And Cover.....	719.66	105.83
	33 42 33 00-0004	EA	22" x 24" Cast Iron Curb Inlet Frame And Cover.....	771.91	123.01
	33 42 33 00-0005	EA	24" x 24" Cast Iron Curb Inlet Frame And Cover.....	797.88	123.01
	33 42 33 00-0006	EA	27" x 27" Cast Iron Curb Inlet Frame And Cover.....	874.32	144.72
	33 42 33 00-0007	EA	36" x 24" Cast Iron Curb Inlet Frame And Cover.....	871.47	154.68
	33 42 36		Stormwater Trench Drains (33 42)		
	33 42 36 00-0001		Modular Trench Drains (33 42 36)		
			See CSI section 03 31 13 00-0011 for concrete.		
	33 42 36 00-0002		Modular Trench Drains (33 42 36 00-0001)		
			Note: Excludes grates. See CSI section 33 42 36 00-0118 for grates.		
	33 42 36 00-0003		4" Wide, Modular Trench Drains (33 42 36 00-0002)		
	33 42 36 00-0004		4 Wide, High Density Polyethylene, Shallow Modular Trench Drains (33 42 36 00-0003)		
	33 42 36 00-0005		4 Wide, High Density Polyethylene, Shallow Modular Trench Drains (33 42 36 00-0004)		

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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 36 00-0006 LF 4" Wide, High Density Polyethylene, Shallow Modular Trench Drain (Zum Z844-C)	48.32	14.47
For Extra Heavy Duty Frame Assembly With Anchor Studs And Grate Lockdown, Add	54.20	
For Galvanized Extra Heavy Duty Frame Assembly With Anchor Studs And Grate Lockdown, Add	108.40	
For Stainless Steel Extra Heavy Duty Frame Assembly With Anchor Studs And Grate Lockdown, Add	173.43	
For Type 304 Stainless Steel Top Veneer Frame, Add	43.36	
For Aluminum Veneer Bronze Anodized Frame, Add	21.68	
33 42 36 00-0007 Outlet Adapters For 4 Wide, High Density Polyethylene, Shallow Modular Trench Drains (33 42 36 00-0004)		
33 42 36 00-0008 EA Closed End Cap For 4" Wide, High Density Polyethylene, Shallow Modular Trench Drain	35.37	
33 42 36 00-0009 EA No-Hub End Outlet For 4" Wide, High Density Polyethylene, Shallow Modular Trench Drain	44.41	
33 42 36 00-0010 EA No-Hub Bottom Outlet For 4" Wide, High Density Polyethylene, Shallow Modular Trench Drain	44.41	
33 42 36 00-0011 6" Wide, Modular Trench Drains (33 42 36 00-0002)		
33 42 36 00-0012 6" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0011)		
33 42 36 00-0013 6" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0012)		
33 42 36 00-0014 LF 6" Wide, High Density Polyethylene, Modular Trench Drain	121.99	14.47
For Extra Heavy Duty Frame Assembly With Anchor Studs And Grate Lockdown, Add	54.20	
For Galvanized Extra Heavy Duty Frame Assembly With Anchor Studs And Grate Lockdown, Add	108.40	
For Stainless Steel Extra Heavy Duty Frame Assembly With Anchor Studs And Grate Lockdown, Add	173.43	
For Type 304 Stainless Steel Top Veneer Frame, Add	43.36	
For Aluminum Veneer Bronze Anodized Frame, Add	21.68	
33 42 36 00-0015 Outlet Adapters For 6" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0012)		
33 42 36 00-0016 EA Closed End Cap For 6" Wide, High Density Polyethylene, Modular Trench Drains	57.11	
33 42 36 00-0017 EA No-Hub End Outlet For 6" Wide, High Density Polyethylene, Modular Trench Drains	66.15	
33 42 36 00-0018 EA No-Hub Bottom Outlet For 6" Wide, High Density Polyethylene, Modular Trench Drains	66.15	
33 42 36 00-0019 Other Fittings For 6" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0012)		
33 42 36 00-0020 EA Bottom Dome Strainer For 6" Wide, High Density Polyethylene, Modular Trench Drains	102.45	
33 42 36 00-0021 EA Joint Connector For 6" Wide, High Density Polyethylene, Modular Trench Drains	102.45	
33 42 36 00-0022 EA 90 Degree, 45 Degree, Tee Or Side Outlet Charge For 6" Wide, High Density Polyethylene, Modular Trench Drains	478.80	
33 42 36 00-0023 EA Cross For 6" Wide, High Density Polyethylene, Modular Trench Drains	912.38	
33 42 36 00-0024 EA Cutting Charge For 6" Wide, High Density Polyethylene, Modular Trench Drains	108.40	
33 42 36 00-0025 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains (33 42 36 00-0011)		
33 42 36 00-0026 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains (33 42 36 00-0025)		
33 42 36 00-0027 LF 6" Wide, Fiber Reinforced Polyester, Modular Trench Drain	172.93	14.47
For Black Acid Resistant Coated Frame, Add	41.19	
For Galvanized Top Frame Assembly, Add	41.19	
For Type 304 Stainless Steel Top Frame Assembly, Add	151.75	
33 42 36 00-0028 Outlet Adapters For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains (33 42 36 00-0025)		
33 42 36 00-0029 EA Closed End Cap For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains	61.45	
33 42 36 00-0030 EA No-Hub End Outlet For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains	70.49	
33 42 36 00-0031 EA No-Hub Bottom Outlet For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains	70.49	
33 42 36 00-0032 Other Fittings For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains (33 42 36 00-0025)		
33 42 36 00-0033 EA Bottom Dome Strainer For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains	102.45	
33 42 36 00-0034 EA Joint Connector For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains	102.45	
33 42 36 00-0035 EA 90 Degree, 45 Degree, Tee Or Side Outlet For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains	478.80	
33 42 36 00-0036 EA Cross For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains	912.38	
33 42 36 00-0037 EA Cutting Charge For 6" Wide, Fiber Reinforced Polyester, Modular Trench Drains	108.40	
33 42 36 00-0038 6" Wide, Vinylester Fiberglass, Modular Trench Drains (33 42 36 00-0011)		
33 42 36 00-0039 6" Wide, Vinylester Fiberglass, Modular Trench Drains (33 42 36 00-0038)		
33 42 36 00-0040 LF 6" Wide, Vinylester Fiberglass, Modular Trench Drain	220.63	14.47
For Black Acid Resistant Coated Frame, Add	41.19	
For Galvanized Top Frame Assembly, Add	41.19	
For Type 304 Stainless Steel Top Frame Assembly, Add	151.75	
33 42 36 00-0041 Outlet Adapters For 6" Wide, Vinylester Fiberglass, Modular Trench Drains (33 42 36 00-0038)		



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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 36 00-0042 EA Closed End Cap For 6" Wide, Vinylester Fiberglass, Modular Trench Drains.....	96.13	
33 42 36 00-0043 EA No-Hub End Outlet For 6" Wide, Vinylester Fiberglass, Modular Trench Drains	105.17	
33 42 36 00-0044 EA No-Hub Bottom Outlet For 6" Wide, Vinylester Fiberglass, Modular Trench Drains.....	105.17	
33 42 36 00-0045 Other Fittings For 6" Wide, Vinylester Fiberglass, Modular Trench Drains (33 42 36 00-0039)		
33 42 36 00-0046 EA Bottom Dome Strainer For 6" Wide, Vinylester Fiberglass, Modular Trench Drains	102.45	
33 42 36 00-0047 EA Joint Connector For 6" Wide, Vinylester Fiberglass, Modular Trench Drains.....	102.45	
33 42 36 00-0048 EA 90 Degree, 45 Degree, Tee Or Side Outlet For 6" Wide, Vinylester Fiberglass, Modular Trench Drains.....	478.80	
33 42 36 00-0049 EA Cross For 6" Wide, Vinylester Fiberglass, Modular Trench Drains	912.38	
33 42 36 00-0050 EA Cutting Charge For 6" Wide, Vinylester Fiberglass, Modular Trench Drains.....	108.40	
33 42 36 00-0051 6" Wide, Polymer Concrete, Modular Trench Drains (33 42 36 00-0011)		
33 42 36 00-0052 6" Wide, Polymer Concrete, Modular Trench Drains (33 42 36 00-0051)		
33 42 36 00-0053 LF 6" Wide, Polymer Concrete, Modular Trench Drain	283.62	
33 42 36 00-0054 Outlet Adapters For 6" Wide, Polymer Concrete, Modular Trench Drains (33 42 36 00-0051)		
33 42 36 00-0055 EA Closed End Cap For 6" Wide, Polymer Concrete, Modular Trench Drain	114.25	
33 42 36 00-0056 EA No-Hub End Outlet For 6" Wide, Polymer Concrete, Modular Trench Drain.....	140.64	
33 42 36 00-0057 EA No-Hub Bottom Outlet For 6" Wide, Polymer Concrete, Modular Trench Drain.....	49.83	
33 42 36 00-0058 12" Wide, Modular Trench Drains (33 42 36 00-0002)		
33 42 36 00-0059 12" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0058)		
33 42 36 00-0060 12" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0059)		
33 42 36 00-0061 LF 12" Wide, High Density Polyethylene, Modular Trench Drain	224.07	19.90
<i>For Acid Resistant Coated Top Frame, Add</i>	56.37	
<i>For Galvanized Welded Frame Assembly, Add</i>	59.08	
<i>For Type 304 Stainless Steel Top Frame, Add</i>	338.19	
33 42 36 00-0062 Outlet Adapters For 12" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0059)		
33 42 36 00-0063 EA End Cap For 12" Wide, High Density Polyethylene, Modular Trench Drains	113.00	
33 42 36 00-0064 EA No-Hub End Outlet For 12" Wide, High Density Polyethylene, Modular Trench Drains.....	125.06	
33 42 36 00-0065 EA No-Hub Bottom Outlet For 12" Wide, High Density Polyethylene, Modular Trench Drains	125.06	
33 42 36 00-0066 Other Fittings For 12" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0059)		
33 42 36 00-0067 EA Bottom Dome Strainer For 12" Wide, High Density Polyethylene, Modular Trench Drains.....	181.15	
33 42 36 00-0068 EA Joint Connector For 12" Wide, High Density Polyethylene, Modular Trench Drains	235.35	
33 42 36 00-0069 EA 90 Degree, 45 Degree, Tee Or Side Outlet For 12" Wide, High Density Polyethylene, Modular Trench Drains	936.74	
33 42 36 00-0070 EA Cross For 12" Wide, High Density Polyethylene, Modular Trench Drains	1,803.90	
33 42 36 00-0071 EA Cutting Charges For 12" Wide, High Density Polyethylene, Modular Trench Drains	216.79	
33 42 36 00-0072 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains (33 42 36 00-0058)		
33 42 36 00-0073 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains (33 42 36 00-0072)		
33 42 36 00-0074 LF 12" Wide, Fiber Reinforced Polyester, Modular Trench Drain.....	278.27	19.90
<i>For Acid Resistant Coated Top Frame, Add</i>	56.37	
<i>For Galvanized Welded Frame Assembly, Add</i>	59.08	
<i>For Type 304 Stainless Steel Top Frame, Add</i>	338.19	
33 42 36 00-0075 Outlet Adapters For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains (33 42 36 00-0072)		
33 42 36 00-0076 EA End Cap For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains.....	117.34	
33 42 36 00-0077 EA No-Hub End Outlet For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	129.40	
33 42 36 00-0078 EA No-Hub Bottom Outlet For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	129.40	
33 42 36 00-0079 Other Fittings For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains (33 42 36 00-0072)		
33 42 36 00-0080 EA Bottom Dome Strainer For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	181.15	
33 42 36 00-0081 EA Joint Connector For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains.....	235.35	
33 42 36 00-0082 EA 90 Degree, 45 Degree, Tee Or Side Outlet For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	936.74	
33 42 36 00-0083 EA Cross For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains	1,803.90	
33 42 36 00-0084 EA Cutting Charges For 12" Wide, Fiber Reinforced Polyester, Modular Trench Drains.....	216.79	
33 42 36 00-0085 12" Wide, Vinylester Fiberglass, Modular Trench Drains (33 42 36 00-0058)		

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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 36 00-0086 12" Wide, Vinylester Fiberglass, Modular Trench Drains (33 42 36 00-0085)		
33 42 36 00-0087 LF 12" Wide, Vinylester Fiberglass, Modular Trench Drain.....	386.66	19.90
For Acid Resistant Coated Top Frame, Add	56.37	
For Galvanized Welded Frame Assembly, Add	59.08	
For Type 304 Stainless Steel Top Frame, Add	338.19	
33 42 36 00-0088 Outlet Adapters For 12" Wide, Vinylester Fiberglass, Modular Trench Drains (33 42 36 00-0085)		
33 42 36 00-0089 EA End Cap For 12" Wide, Vinylester Fiberglass, Modular Trench Drains.....	279.93	
33 42 36 00-0090 EA No-Hub End Outlet For 12" Wide, Vinylester Fiberglass, Modular Trench Drains.....	291.99	
33 42 36 00-0091 EA No-Hub Bottom Outlet For 12" Wide, Vinylester Fiberglass, Modular Trench Drains.....	291.99	
33 42 36 00-0092 Other Fittings For 12" Wide, Vinylester Fiberglass, Modular Trench Drains (33 42 36 00-0085)		
33 42 36 00-0093 EA Bottom Dome Strainer For 12" Wide, Vinylester Fiberglass, Modular Trench Drains.....	181.15	
33 42 36 00-0094 EA Joint Connector For 12" Wide, Vinylester Fiberglass, Modular Trench Drains.....	235.35	
33 42 36 00-0095 EA 90 Degree, 45 Degree, Tee Or Side Outlet For 12" Wide, Vinylester Fiberglass, Modular Trench Drains.....	936.74	
33 42 36 00-0096 EA Cross For 12" Wide, Vinylester Fiberglass, Modular Trench Drains.....	1,803.90	
33 42 36 00-0097 EA Cutting Charges For 12" Wide, Vinylester Fiberglass, Modular Trench Drains.....	216.79	
33 42 36 00-0098 12" Wide, Polymer Concrete, Modular Trench Drains (33 42 36 00-0098)		
33 42 36 00-0099 12" Wide, Polymer Concrete, Modular Trench Drains (33 42 36 00-0098)		
33 42 36 00-0100 LF 12" Wide, Polymer Concrete, Modular Trench Drain.....	380.33	
33 42 36 00-0101 Outlet Adapters For 12" Wide, Polymer Concrete, Modular Trench Drains (33 42 36 00-0098)		
33 42 36 00-0102 EA Closed End Cap For 12" Wide, Polymer Concrete, Modular Trench Drain.....	192.43	
33 42 36 00-0103 EA No-Hub End Outlet For 12" Wide, Polymer Concrete, Modular Trench Drain.....	330.00	
33 42 36 00-0104 EA No-Hub Bottom Outlet For 12" Wide, Polymer Concrete, Modular Trench Drain.....	84.20	
33 42 36 00-0105 23" Wide, Modular Trench Drains (33 42 36 00-0105)		
33 42 36 00-0106 23" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0105)		
33 42 36 00-0107 23" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0106)		
33 42 36 00-0108 LF 23" Wide, High Density Polyethylene, Modular Trench Drain.....	313.21	27.13
For Acid Resistant Coated Frame, Add	84.55	
For Galvanized Frame Assembly, Add	84.55	
For Type 304 Stainless Steel Top Frame, Add	520.30	
33 42 36 00-0109 Outlet Adapters For 23" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0106)		
33 42 36 00-0110 EA End Cap For 23" Wide, High Density Polyethylene, Modular Trench Drains.....	344.35	
33 42 36 00-0111 EA No-Hub End Outlet For 23" Wide, High Density Polyethylene, Modular Trench Drains.....	513.98	
33 42 36 00-0112 EA No-Hub Bottom Outlet For 23" Wide, High Density Polyethylene, Modular Trench Drains.....	513.98	
33 42 36 00-0113 Other Fittings For 23" Wide, High Density Polyethylene, Modular Trench Drains (33 42 36 00-0106)		
33 42 36 00-0114 EA Bottom Dome Strainer For 23" Wide, High Density Polyethylene, Modular Trench Drains.....	406.51	
33 42 36 00-0115 EA 90 Degree, 45 Degree, Tee Or Side Outlet For 23" Wide, High Density Polyethylene, Modular Trench Drains.....	1,847.37	
33 42 36 00-0116 EA Cross For 23" Wide, High Density Polyethylene, Modular Trench Drains.....	3,581.69	
33 42 36 00-0117 EA Cutting Charges For 23" Wide, High Density Polyethylene, Modular Trench Drains.....	433.58	
33 42 36 00-0118 Modular Trench Drain Grates (33 42 36 00-0001)		
33 42 36 00-0119 4" Wide, Modular Trench Drain Grates (33 42 36 00-0118)		
33 42 36 00-0120 LF 4" Wide, Polypropylene, Silver Heel Proof, Modular Trench Drain Grate (Zurn Z884-P4-HPP).....	26.55	2.72
33 42 36 00-0121 LF 4" Wide, Class C Cast Iron, Modular Trench Drain Grate (Zurn Z884-P4-CG).....	27.85	2.72
33 42 36 00-0122 LF 4" Wide, Galvanized Steel Slotted, Modular Trench Drain Grate (Zurn Z884-P4-FG).....	22.67	2.72
33 42 36 00-0123 LF 4" Wide, Stainless Steel Slotted, Modular Trench Drain Grate (Zurn Z884-P4-FS).....	58.31	2.72
33 42 36 00-0124 LF 4" Wide, Galvanized Steel Perforated, Modular Trench Drain Grate (Zurn Z884-P4-FG).....	22.67	2.72
33 42 36 00-0125 LF 4" Wide, Stainless Steel Perforated, Modular Trench Drain Grate (Zurn Z884-P4-FS).....	58.31	2.72
33 42 36 00-0126 6" Wide, Modular Trench Drain Grates (33 42 36 00-0118)		
33 42 36 00-0127 LF 6" Wide, Galvanized Ductile Iron Cast Bar, Modular Trench Drain Grate.....	108.58	2.72
33 42 36 00-0128 LF 6" Wide, Ductile Iron Cast Bar, Modular Trench Drain Grate.....	92.21	2.72
33 42 36 00-0129 LF 6" Wide, Ductile Iron Solid Cover, Modular Trench Drain Grate.....	96.76	2.72
33 42 36 00-0130 LF 6" Wide, Ductile Iron Slotted, Modular Trench Drain Grate.....	84.73	2.72
33 42 36 00-0131 LF 6" Wide, Galvanized Ductile Iron Slotted, Modular Trench Drain Grate.....	91.24	2.72
33 42 36 00-0132 LF 6" Wide, Heel Proof Ductile Iron, Modular Trench Drain Grate.....	92.32	2.72



Utilities	33	CS
Stormwater Utilities	33 40	
Stormwater Conveyance	33 42	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 42 36 00-0133 LF 6" Wide, Ductile Iron Longitudinal Slotted, Modular Trench Drain Grate.....	92.32	2.72
33 42 36 00-0134 LF 6" Wide, Galvanized Cast Iron Slotted, Modular Trench Drain Grate.....	91.24	2.72
33 42 36 00-0135 LF 6" Wide, Galvanized Steel Slotted, Modular Trench Drain Grate.....	80.40	2.72
33 42 36 00-0136 LF 6" Wide, Perforated Galvanized Steel, Modular Trench Drain Grate.....	80.40	2.72
33 42 36 00-0137 LF 6" Wide, Reinforced Galvanized Steel Slotted, Modular Trench Drain Grate.....	85.38	2.72
33 42 36 00-0138 LF 6" Wide, Reinforced Perforated Galvanized Steel, Modular Trench Drain Grate.....	85.38	2.72
33 42 36 00-0139 LF 6" Wide, Fabricated Stainless Steel Slotted, Modular Trench Drain Grate.....	110.75	2.72
33 42 36 00-0140 LF 6" Wide, Perforated Stainless Steel, Modular Trench Drain Grate.....	110.75	2.72
33 42 36 00-0141 LF 6" Wide, Reinforced Stainless Steel Slotted, Modular Trench Drain Grate.....	201.80	2.72
33 42 36 00-0142 LF 6" Wide, Reinforced Perforated Stainless Steel, Modular Trench Drain Grate.....	201.80	2.72
33 42 36 00-0143 LF 6" Wide, Stainless Steel Bar, Modular Trench Drain Grate.....	559.50	2.72
33 42 36 00-0144 LF 6" Wide, Heel Proof Polyethylene, Modular Trench Drain Grate.....	76.06	2.72
33 42 36 00-0145 LF 6" Wide, Fiberglass, Modular Trench Drain Grate.....	162.78	2.72
33 42 36 00-0146 12" Wide, Modular Trench Drain Grates (33 42 36 00-0118)		
33 42 36 00-0147 LF 12" Wide, Black Acid Resistant Coated Ductile Iron, Modular Trench Drain Grate.....	297.65	2.94
33 42 36 00-0148 LF 12" Wide, Ductile Iron Solid Cover, Modular Trench Drain Grate.....	284.64	2.94
33 42 36 00-0149 LF 12" Wide, Galvanized Ductile Iron Slotted, Modular Trench Drain Grate.....	247.78	2.94
33 42 36 00-0150 LF 12" Wide, Heel Proof Ductile Iron, Modular Trench Drain Grate.....	260.25	2.94
33 42 36 00-0151 LF 12" Wide, Perforated Galvanized Steel, Modular Trench Drain Grate.....	225.02	2.94
33 42 36 00-0152 LF 12" Wide, Reinforced Galvanized Steel Slotted, Modular Trench Drain Grate.....	439.10	2.94
33 42 36 00-0153 LF 12" Wide, Reinforced Perforated Galvanized Steel, Modular Trench Drain Grate.....	439.10	2.94
33 42 36 00-0154 LF 12" Wide, Fabricated Stainless Steel Slotted, Modular Trench Drain Grate.....	559.96	2.94
33 42 36 00-0155 LF 12" Wide, Perforated Stainless Steel, Modular Trench Drain Grate.....	559.96	2.94
33 42 36 00-0156 LF 12" Wide, Reinforced Stainless Steel Slotted, Modular Trench Drain Grate.....	714.43	2.94
33 42 36 00-0157 LF 12" Wide, Reinforced Perforated Stainless Steel Slotted, Modular Trench Drain Grate.....	714.43	2.94
33 42 36 00-0158 LF 12" Wide, Stainless Steel Cast Bar, Modular Trench Drain Grate.....	678.11	2.94
33 42 36 00-0159 LF 12" Wide, Fiberglass, Modular Trench Drain Grate.....	320.95	2.94
33 42 36 00-0160 23" Wide, Modular Trench Drain Grates (33 42 36 00-0118)		
33 42 36 00-0161 LF 23" Wide, Ductile Iron Solid Cover, Modular Trench Drain Grate.....	469.35	3.16
33 42 36 00-0162 LF 23" Wide, Ductile Iron Slotted, Modular Trench Drain Grate.....	395.64	3.16
33 42 36 00-0163 LF 23" Wide, Galvanized Ductile Iron Slotted, Modular Trench Drain Grate.....	612.43	3.16
33 42 36 00-0164 LF 23" Wide, Heel Proof Longitudinal Ductile Iron, Modular Trench Drain Grate.....	454.18	3.16
33 44 Storm Utility Water Drains (33 40)		
33 44 36 Oil and Stormwater Separators (33 44)		
33 44 36 00-0001 Oil/Water Separator (33 44 36)		
Note: Complete with internal sensors and detectors.		
33 44 36 00-0002 Coalescing Oil Water Separator (33 44 36 00-0001)		
Note: Underground tank with interior polyurethane coating. Includes manways, coalescer, inlet and outlet spools, pump mount, 2" level sensor pipe and 4" pump out pipe. HighGuard as manufactured by Highland Tank, Stoystown, PA.		
33 44 36 00-0003 Single Wall Steel Coalescing Oil Water Separator (33 44 36 00-0002)		
33 44 36 00-0004 EA 550 Gallon, 55 GPM Single Wall Steel Coalescing Oil Water Separator With Manways.....	12,939.43	
Note: HTC-G 550. 3'-6" diameter x 10'-9" long tank.		
For Interior Polyurethane Coating, Add		711.00
33 44 36 00-0005 EA 1,000 Gallon, 100 GPM Single Wall Steel Coalescing Oil Water Separator With Manways.....	15,327.43	
Note: HTC-G 1000. 4' diameter x 14' long tank.		
For Interior Polyurethane Coating, Add		893.70
33 44 36 00-0006 EA 2,000 Gallon, 200 GPM Single Wall Steel Coalescing Oil Water Separator With Manways.....	17,898.26	
Note: HTC-G 2000. 5'-4" diameter x 15' long tank.		
For Interior Polyurethane Coating, Add		1,340.10
33 44 36 00-0007 Double Wall Steel Coalescing Oil Water Separator (33 44 36 00-0002)		
33 44 36 00-0008 EA 550 Gallon, 55 GPM Double Wall Steel Coalescing Oil Water Separator With Manways.....	18,848.61	
Note: HTC-G 550. 3'-6" diameter x 10'-9" long tank.		
For Interior Polyurethane Coating, Add		711.00
33 44 36 00-0009 EA 1,000 Gallon, 100 GPM Double Wall Steel Coalescing Oil Water Separator With Manways.....	21,334.79	
Note: HTC-G 1000. 4' diameter x 14' long tank.		
For Interior Polyurethane Coating, Add		893.70
33 44 36 00-0010 EA 2,000 Gallon, 200 GPM Double Wall Steel Coalescing Oil Water Separator With Manways.....	25,567.84	
Note: HTC-G 2000. 5'-4" diameter x 15' long tank.		
For Interior Polyurethane Coating, Add		1,340.10
33 44 36 00-0011 EA 3,000 Gallon, 300 GPM Double Wall Steel Coalescing Oil Water Separator With Manways.....	29,400.25	
Note: HTC-G 3000. 5'-4" diameter x 21'-4" long tank.		
For Interior Polyurethane Coating, Add		1,550.70
33 44 36 00-0012 EA 5,000 Gallon, 500 GPM Double Wall Steel Coalescing Oil Water Separator With Manways.....	38,116.77	
Note: HTC-G 5000. 6' diameter x 28'-8" long tank.		
For Interior Polyurethane Coating, Add		2,057.80
33 44 36 00-0013 Accessories For Coalescing Oil Water Separators (33 44 36 00-0002)		
33 44 36 00-0014 EA Single Channel Alarm Panel For Coalescing Oil Water Separator.....	694.71	
Note: HTAP1.		

33 Utilities**33 40 Stormwater Utilities****33 44 Storm Utility Water Drains**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 44 36 00-0015 EA Two Channel Alarm Panel For Coalescing Oil Water Separator Note: HTAP2.	942.92	
33 44 36 00-0016 EA Float Interface Sensor For Coalescing Oil Water Separator Note: Required for UL 2215 label.	556.03	
33 44 36 00-0017 EA 1-1/2" Liquid Only Sensor For Coalescing Oil Water Separator Note: Required for UL 2215 label.	412.94	
33 44 36 00-0018 EA Polyvinyl Chloride (PVC) Cap For 2" Sensor For Coalescing Oil Water Separator Note: Required for UL 2215 label.	144.65	
33 44 36 00-0019 EA 550, 1,000 Or 2,000 Gallon Tank Concrete Deadmen Set (2 Each) For Coalescing Oil Water Separator.....	2,419.14	
33 44 36 00-0020 EA 3,000 Gallon Tank Concrete Deadmen Set (4 Each) For Coalescing Oil Water Separator	4,838.28	
33 44 36 00-0021 EA 5,000 Gallon Tank Concrete Deadmen Set (6 Each) For Coalescing Oil Water Separator	7,257.49	
33 44 36 00-0022 EA 550 Or 1,000 Gallon Tank Polyester Hold Down Straps (2 Each) With Galvanized Turnbuckle And Clamps For Coalescing Oil Water Separator.....	464.17	
33 44 36 00-0023 EA 2,000 Gallon Tank Polyester Hold Down Straps (2 Each) With Galvanized Turnbuckle And Clamps For Coalescing Oil Water Separator.....	540.48	
33 44 36 00-0024 EA 3,000 Gallon Tank Polyester Hold Down Straps (4 Each) With Galvanized Turnbuckle And Clamps For Coalescing Oil Water Separator.....	1,080.96	
33 44 36 00-0025 EA 5,000 Gallon Tank Polyester Hold Down Straps (6 Each) With Galvanized Turnbuckle And Clamps For Coalescing Oil Water Separator.....	2,336.90	
33 44 36 00-0026 EA 30" Diameter Grade Level Manway For Coalescing Oil Water Separator Note: Required when installed in paved areas.	643.03	
33 44 36 00-0027 EA 36" Diameter Grade Level Manway For Coalescing Oil Water Separator Note: Required when installed in paved areas.	830.42	
33 44 36 00-0028 EA 48" Diameter Grade Level Manway For Coalescing Oil Water Separator Note: Required when installed in paved areas.	1,137.06	
33 44 36 00-0029 EA 54" x 54" Grade Level Manway For Coalescing Oil Water Separator Note: Required when installed in paved areas.	2,028.99	
33 44 36 00-0030 EA 66" x 54" Grade Level Manway For Coalescing Oil Water Separator Note: Required when installed in paved areas.	2,594.19	
33 44 36 00-0031 EA 66" x 66" Grade Level Manway For Coalescing Oil Water Separator Note: Required when installed in paved areas.	3,242.86	
33 44 36 00-0032 EA 78" x 66" Grade Level Manway For Coalescing Oil Water Separator Note: Required when installed in paved areas.	4,075.16	
33 44 36 00-0033 EA 550 Gallon Petroscreen (Material Only) For Coalescing Oil Water Separator	795.34	
33 44 36 00-0034 EA 1,000 Gallon Petroscreen (Material Only) For Coalescing Oil Water Separator	969.43	
33 44 36 00-0035 EA 2,000 Gallon Petroscreen (Material Only) For Coalescing Oil Water Separator	1,522.71	
33 44 36 00-0036 EA 550 Gallon Corrugated Coalescer Plate (Material Only) For Coalescing Oil Water Separator.....	758.37	
33 44 36 00-0037 EA 1,000 Gallon Corrugated Coalescer Plate (Material Only) For Coalescing Oil Water Separator.....	920.54	
33 44 36 00-0038 EA 2,000 Gallon Corrugated Coalescer Plate (Material Only) For Coalescing Oil Water Separator.....	1,092.25	
33 44 36 00-0039 EA 18" Manhole Gasket (Material Only) For Coalescing Oil Water Separator.....	64.39	
33 44 36 00-0040 EA 24" Manhole Gasket (Material Only) For Coalescing Oil Water Separator.....	72.74	
33 44 36 00-0041 Oil Skimmers (33 44 36)		
33 44 36 00-0042 Oil Skimmers, 12" And 24" Models (33 44 36 00-0041)		
33 44 36 00-0043 EA Oil Skimmers, TENV, 12" Open, 1/2 HP, 230/460 Volt, 3 Phase	4,914.37	532.62
33 44 36 00-0044 EA Oil Skimmers, Explosion-Proof, 12" Open, 1/2 HP, 230/460 Volt, 3 Phase.....	5,150.17	532.62
33 44 36 00-0045 EA Oil Skimmers, TENV, 12" Open, 1/2 HP, 115/220 Volt, 1 Phase	4,936.21	532.62
33 44 36 00-0046 EA Oil Skimmers, Explosion-Proof, 12" Open, 1/2 HP, 115/220 Volt, 1 Phase.....	5,238.59	532.62
33 44 36 00-0047 EA Oil Skimmers, TENV, 12" Enclosed, 1/2 HP, 230/460 Volt, 3 Phase	5,184.01	532.62
33 44 36 00-0048 EA Oil Skimmers, Explosion-Proof, 12" Enclosed, 1/2 HP, 230/460 Volt, 3 Phase.....	5,383.78	532.62
33 44 36 00-0049 EA Oil Skimmers, TENV, 12" Enclosed, 1/2 HP, 115/220 Volt, 1 Phase	5,235.31	532.62
33 44 36 00-0050 EA Oil Skimmers, Explosion-Proof, 12" Enclosed, 1/2 HP, 115/220 Volt, 1 Phase.....	5,536.61	532.62
33 44 36 00-0051 EA Oil Skimmers, TENV, 24" Open, 1/2 HP, 230/460 Volt, 3 Phase	5,522.93	710.31
33 44 36 00-0052 EA Oil Skimmers, Explosion-Proof, 24" Open, 1/2 HP, 230/460 Volt, 3 Phase.....	5,775.10	710.31
33 44 36 00-0053 EA Oil Skimmers, TENV, 24" Open, 1/2 HP, 115/220 Volt, 1 Phase	5,589.52	710.31
33 44 36 00-0054 EA Oil Skimmers, Explosion-Proof, 24" Open, 1/2 HP, 115/220 Volt, 1 Phase.....	5,951.95	710.31
33 44 36 00-0055 EA Oil Skimmers, TENV, 24" Enclosed, 1/2 HP, 230/460 Volt, 3 Phase	6,160.45	710.31
33 44 36 00-0056 EA Oil Skimmers, Explosion-Proof, 24" Enclosed, 1/2 HP, 230/460 Volt, 3 Phase.....	6,412.62	710.31
33 44 36 00-0057 EA Oil Skimmers, TENV, 24" Enclosed, 1/2 HP, 115/220 Volt, 1 Phase	6,213.94	710.31
33 44 36 00-0058 EA Oil Skimmers, Explosion-Proof, 24" Enclosed, 1/2 HP, 115/220 Volt, 1 Phase.....	6,577.46	710.31
33 44 36 00-0059 Oil Skimmers, Add-Ons (33 44 36 00-0041)		
33 44 36 00-0060 LF Add For Belt Projection, 12" Width.....	16.37	
33 44 36 00-0061 LF Add For Belt Projection, 24" Width.....	30.57	
33 44 36 00-0062 LF Add For Spacer Stands, 12" Models	250.32	
33 44 36 00-0063 LF Add For Spacer Stands, 24" Models	298.35	

33 46 Stormwater Management (33 40)**33 46 23 Modular Buried Stormwater Storage Units (33 46)****33 46 23 00-0001 Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™) (33 46 23)**

Note: Includes chambers and end caps delivery to site. Excludes excavation and earthwork, foundation stone, embedment and perimeter stone, geotextile fabrics and cutting holes in chambers. See CSI section 31 05 16 00-0000 for aggregate (foundation, embedment and perimeter stone), 31 23 16 36-0000 for excavation and earth backfill, 31 32 19 16-0000 for woven and non-woven geotextile fabric.



Utilities	33	CS
Stormwater Utilities	33 40	
Stormwater Management	33 46	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 46 23 00-0002 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-740) <small>(33 46 23 00-0001)</small>		
33 46 23 00-0003 EA Up To 10, 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-740)	365.41	
33 46 23 00-0004 EA >10 To 20, 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-740)	334.90	
33 46 23 00-0005 EA >20 To 30, 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-740)	313.79	
33 46 23 00-0006 EA >30, 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-740)	293.30	
33 46 23 00-0007 EA Up To 10, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ SC-740)	167.88	
33 46 23 00-0008 EA >10 To 20, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ SC-740)	147.25	
33 46 23 00-0009 EA >20 To 30, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ SC-740)	135.52	
33 46 23 00-0010 EA >30, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ SC-740)	123.95	
33 46 23 00-0011 85.4" Long x 34" Wide x 16" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-310) <small>(33 46 23 00-0001)</small>		
33 46 23 00-0012 EA Up To 10, 85.4" Long x 34" Wide x 16" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-310)	215.00	
33 46 23 00-0013 EA >10 To 20, 85.4" Long x 34" Wide x 16" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-310)	195.54	
33 46 23 00-0014 EA >20 To 30, 85.4" Long x 34" Wide x 16" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-310)	182.48	
33 46 23 00-0015 EA >30, 85.4" Long x 34" Wide x 16" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ SC-310)	170.61	
33 46 23 00-0016 EA Up To 10, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ SC-310)	132.57	
33 46 23 00-0017 EA >10 To 20, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ SC-310)	117.22	
33 46 23 00-0018 EA >20 To 30, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ SC-310)	108.07	
33 46 23 00-0019 EA >30, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ SC-310)	99.91	
33 46 23 00-0020 90" Long x 77" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC3500) <small>(33 46 23 00-0001)</small>		
33 46 23 00-0021 EA Up To 10, 90" Long x 77" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC3500)	606.54	
33 46 23 00-0022 EA >10 To 20, 90" Long x 77" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC3500)	562.45	
33 46 23 00-0023 EA >20 To 30, 90" Long x 77" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC3500)	528.33	
33 46 23 00-0024 EA >30, 90" Long x 77" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC3500)	497.55	
33 46 23 00-0025 EA Up To 10, 25.7" Long x 75" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ MC3500)	515.67	
33 46 23 00-0026 EA >10 To 20, 25.7" Long x 75" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ MC3500)	476.12	
33 46 23 00-0027 EA >20 To 30, 25.7" Long x 75" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ MC3500)	446.32	
33 46 23 00-0028 EA >30, 25.7" Long x 75" Wide x 45" High, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ MC3500)	419.63	
33 46 23 00-0029 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ DC-780) <small>(33 46 23 00-0001)</small>		
33 46 23 00-0030 EA Up To 10, 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ DC-780)	378.44	
33 46 23 00-0031 EA >10 To 20, 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ DC-780)	347.28	
33 46 23 00-0032 EA >20 To 30, 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ DC-780)	325.55	
33 46 23 00-0033 EA >30, 85.4" Long x 51" Wide x 30" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ DC-780)	304.47	
33 46 23 00-0034 EA Up To 10, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ DC-780)	167.88	
33 46 23 00-0035 EA >10 To 20, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ DC-780)	144.78	
33 46 23 00-0036 EA >20 To 30, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ DC-780)	135.52	
33 46 23 00-0037 EA >30, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ DC-780)	123.95	
33 46 23 00-0038 52" Long x 100" Wide x 60" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC4500) <small>(33 46 23 00-0001)</small>		
33 46 23 00-0039 EA Up To 10, 52" Long x 100" Wide x 60" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC4500)	632.64	
33 46 23 00-0040 EA >10 To 20, 52" Long x 100" Wide x 60" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC4500)	585.75	
33 46 23 00-0041 EA >20 To 30, 52" Long x 100" Wide x 60" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC4500)	548.81	
33 46 23 00-0042 EA >30, 52" Long x 100" Wide x 60" High, Polypropylene Corrugated Wall Stormwater Collection Chambers (StormTech™ MC4500)	517.45	
33 46 23 00-0043 EA Up To 10, 35.1" Long x 90.2" Wide x 59.4" High, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ MC4500)	779.76	

33	33 Utilities
	33 40 Stormwater Utilities
	33 46 Stormwater Management



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 46 23 00-0044 EA >10 To 20, 35.1" Long x 90.2" Wide x 59.4" High, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ MC4500)	725.51	
33 46 23 00-0045 EA >20 To 30, 35.1" Long x 90.2" Wide x 59.4" High, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ MC4500)	681.58	
33 46 23 00-0046 EA >30, 35.1" Long x 90.2" Wide x 59.4" High, Polypropylene Corrugated Wall Stormwater Collection Chamber End Cap (StormTech™ MC4500)	643.58	
33 46 23 00-0047 Cut Opening In Polypropylene Corrugated Wall Stormwater Collection Chambers (33 46 23 00-0001)		
33 46 23 00-0048 EA Cut Up To 6" Diameter Opening, Polypropylene Corrugated Wall Stormwater Collection Chamber Or End Cap	46.30	
33 46 23 00-0049 EA Cut >6" To 12" Diameter Opening, Polypropylene Corrugated Wall Stormwater Collection Chamber Or End Cap	59.51	
33 46 23 00-0050 EA Cut >12" To 24" Diameter Opening, Polypropylene Corrugated Wall Stormwater Collection Chamber Or End Cap	76.87	
33 46 23 00-0051 EA Cut >24" To 36" Diameter Opening, Polypropylene Corrugated Wall Stormwater Collection Chamber Or End Cap	97.19	
33 46 23 00-0052 EA 12" x 6" Inspection Port Kit	432.83	
Note: (2712AG6IPKIT)		
33 46 53 Stormwater Leaching Pits (33 46)		
33 46 53 00-0001 Drainage Wells (33 46 53)		
Note: Includes augering hole.		
33 46 53 00-0002 LF 12" Diameter Drainage Well With Corrugated Metal Liner	25.19	
33 46 53 00-0003 LF 18" Diameter Drainage Well With Corrugated Metal Liner	30.52	
33 46 53 00-0004 LF 24" Diameter Drainage Well With Corrugated Metal Liner	40.43	
33 50 Hydrocarbon Utilities (33)		
33 52 Hydrocarbon Transmission and Distribution (33 50)		
33 52 16 Gas Hydrocarbon Piping (33 52)		
33 52 16 13 Steel Natural Gas Piping (33 52 16)		
See CSI section 23 05 23 00-0000 for gas valves.		
33 52 16 13-0001 Gas Distribution Lines (33 52 16 13)		
Note: Excludes excavation and backfill.		
33 52 16 13-0002 Steel, Schedule 40, Plain End, Coal Tar Enamel And Wrapped (33 52 16 13-0001)		
33 52 16 13-0003 LF 1/2" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel	13.03	2.40
33 52 16 13-0004 LF 3/4" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel	14.88	2.64
33 52 16 13-0005 LF 1" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel	16.69	2.71
33 52 16 13-0006 LF 1-1/4" (3.2 cm) Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel	17.13	2.78
33 52 16 13-0007 LF 1-1/2" (3.6 cm) Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel	17.70	2.81
33 52 16 13-0008 LF 2" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel	18.79	3.01
33 52 16 13-0009 LF 2-1/2" (6.0 cm) Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel	25.43	3.55
33 52 16 13-0010 LF 3" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel	31.75	4.47
33 52 16 13-0011 LF 4" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel	42.10	5.40
33 52 16 13-0012 LF 5" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel	55.71	6.26
33 52 16 13-0013 LF 6" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel	69.82	7.64
33 52 16 13-0014 LF 8" Diameter Schedule 40 Steel Gas Distribution Line, Plain End, Coal Tar Enamel	100.17	9.83
33 52 16 13-0015 Gas Line Taps (33 52 16 13-0001)		
Note: Includes material to tap into main and gas valve.		
33 52 16 13-0016 Polyethylene, 60 PSI (33 52 16 13-0015)		
33 52 16 13-0017 EA 2" Polyethylene Hot Tap, With Valve	1,407.21	
33 52 16 13-0018 EA 2-1/2" Polyethylene Hot Tap, With Valve	1,567.85	
33 52 16 13-0019 EA 3" Polyethylene Hot Tap, With Valve	1,655.96	
33 52 16 13-0020 EA 4" Polyethylene Hot Tap, With Valve	2,485.26	
33 52 16 13-0021 EA 6" Polyethylene Hot Tap, With Valve	3,816.88	
33 52 16 13-0022 Steel, Schedule 40 (33 52 16 13-0015)		
Note: For punch steel service tee.		
33 52 16 13-0023 EA 1/2" Iron Pipe Size Weld Base, 1/2" Iron Pipe Size Compression/Plain End Pipe Outlet Punch Valve Steel Service Tee	1,763.22	
33 52 16 13-0024 EA 3/4" Iron Pipe Size Weld Base, 1/2" Iron Pipe Size Compression/Plain End Pipe Outlet Punch Valve Steel Service Tee	1,793.04	
33 52 16 13-0025 EA 3/4" Iron Pipe Size Weld Base, 3/4" Iron Pipe Size Compression/Plain End Pipe Outlet Punch Valve Steel Service Tee	1,837.03	
33 52 16 13-0026 EA 3/4" Iron Pipe Size Weld Base, 1" Iron Pipe Size Compression/Plain End Pipe Outlet Punch Valve Steel Service Tee	1,879.38	
33 52 16 13-0027 EA 1" Iron Pipe Size Weld Base, 1" Iron Pipe Size Compression/Plain End Pipe Outlet Punch Valve Steel Service Tee	1,909.06	
33 52 16 13-0028 EA 1-1/4" Iron Pipe Size Weld Base, 1" Iron Pipe Size Compression/Plain End Pipe Outlet Punch Valve Steel Service Tee	2,074.48	
33 52 16 13-0029 EA 1-1/4" Iron Pipe Size Weld Base, 1-1/4" Iron Pipe Size Compression/Plain End Pipe Outlet Punch Valve Steel Service Tee	2,129.71	



Utilities	33	CS
Hydrocarbon Utilities	33 50	
Hydrocarbon Transmission and Distribution	33 52	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 52 16 13-0030 Protective Pipe And Fitting Wrap <small>(33 52 16 13-0001)</small> Note: Includes cleaning and priming pipe.		
33 52 16 13-0031 Corrosion Protection Pipe Wrap For Pipe <small>(33 52 16 13-0030)</small> Note: Field applied.		
33 52 16 13-0032 LF 1/2" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	3.48	
33 52 16 13-0033 LF 3/4" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	3.64	
33 52 16 13-0034 LF 1" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	3.82	
33 52 16 13-0035 LF 1-1/4" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	4.31	
33 52 16 13-0036 LF 1-1/2" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	4.58	
33 52 16 13-0037 LF 2" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	5.29	
33 52 16 13-0038 LF 2-1/2" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	6.54	
33 52 16 13-0039 LF 3" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	10.22	
33 52 16 13-0040 LF 4" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	18.47	
33 52 16 13-0041 LF 6" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe	14.06	
33 52 16 13-0042 Corrosion Resistance Wrap And Coat - Fittings <small>(33 52 16 13-0030)</small> Note: Field applied.		
33 52 16 13-0043 EA 1/2" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings.....	16.97	
33 52 16 13-0044 EA 3/4" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings.....	16.97	
33 52 16 13-0045 EA 1" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings.....	20.83	
33 52 16 13-0046 EA 1-1/4" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings.....	23.73	
33 52 16 13-0047 EA 1-1/2" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings.....	23.73	
33 52 16 13-0048 EA 2" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings.....	28.10	
33 52 16 13-0049 EA 2-1/2" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings.....	37.38	
33 52 16 13-0050 EA 3" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings.....	53.03	
33 52 16 13-0051 EA 4" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings.....	53.90	
33 52 16 13-0052 EA 6" Outside Pipe Diameter, Corrosion Protection Wrap For Pipe Fittings.....	62.34	
33 52 16 13-0053 Service Fittings <small>(33 52 16 13-0001)</small>		
33 52 16 13-0054 Brass Fittings <small>(33 52 16 13-0053)</small>		
33 52 16 13-0055 EA 1/2" X 2" Long Nipples, Threaded Both Ends, Brass	30.17	
33 52 16 13-0056 EA 3/4" X 2" Long Nipples, Threaded Both Ends, Brass	34.94	
33 52 16 13-0057 EA 1" X 2" Long Nipples, Threaded Both Ends, Brass	44.16	
33 52 16 13-0058 EA 1-1/4" X 2" Long Nipples, Threaded Both Ends, Brass	54.56	
33 52 16 13-0059 EA 1-1/2" X 2" Long Nipples, Threaded Both Ends, Brass	61.11	
33 52 16 13-0060 EA 2" X 2" Long Nipples, Threaded Both Ends, Brass	79.02	
33 52 16 13-0061 EA 1/2" 90 Degree Elbow, Brass	26.10	
33 52 16 13-0062 EA 3/4" 90 Degree Elbow, Brass	29.87	
33 52 16 13-0063 EA 1" 90 Degree Elbow, Brass	38.45	
33 52 16 13-0064 EA 1-1/4" 90 Degree Elbow, Brass	49.23	
33 52 16 13-0065 EA 1-1/2" 90 Degree Elbow, Brass	56.05	
33 52 16 13-0066 EA 2" 90 Degree Elbow, Brass	74.06	
33 52 16 13-0067 EA 1/2" Diameter Chrome Plated Nipple	24.43	
33 52 16 13-0068 EA 3/4" Diameter Chrome Plated Nipple	31.79	
33 52 16 13-0069 EA 1" Diameter Chrome Plated Nipple	41.43	
33 52 16 13-0070 EA 1-1/4" Diameter Chrome Plated Nipple	59.55	
33 52 16 13-0071 EA 1-1/2" Diameter Chrome Plated Nipple	73.02	
33 52 16 13-0072 EA 2" Diameter Chrome Plated Nipple	100.49	
33 52 16 13-0073 Anodless Gas Riser <small>(33 52 16 13-0053)</small>		
33 52 16 13-0074 EA 3/4" Anodless Gas Riser	71.53	
33 52 16 13-0075 EA 1" Anodless Gas Riser	87.86	
33 52 16 13-0076 EA 1-1/4" Anodless Gas Riser	101.76	
33 52 16 13-0077 EA 1-1/2" Anodless Gas Riser	124.66	
33 52 16 13-0078 EA 2" Anodless Gas Riser	141.86	
33 52 16 13-0079 Brass Service Adapter <small>(33 52 16 13-0053)</small>		
33 52 16 13-0080 EA 1/2" Brass Service Adapter	58.65	
33 52 16 13-0081 EA 3/4" Brass Service Adapter	64.53	
33 52 16 13-0082 EA 1" Brass Service Adapter	77.49	
33 52 16 13-0083 EA 1-1/4" Brass Service Adapter	94.60	
33 52 16 13-0084 EA 1-1/2" Brass Service Adapter	114.18	
33 52 16 13-0085 EA 2" Brass Service Adapter	137.96	
33 52 16 13-0086 EA 2-1/2" Brass Service Adapter	237.24	
33 52 16 13-0087 EA 3" Brass Service Adapter	289.94	
33 52 16 13-0088 EA 4" Brass Service Adapter	418.53	
33 52 16 23 Medium Density Polyethylene Piping for Natural Gas <small>(33 52 16)</small>		
33 52 16 23-0001 Medium Density Polyethylene (MDPE) Gas Distribution Piping <small>(33 52 16 23)</small> Note: PE2406/PE2708. Includes couplings, #12 tracer wire, helically wrapped around piping.		
33 52 16 23-0002 LF 1/2" Diameter, SDR 9, Medium Density Polyethylene (MDPE) Gas Distribution Pipe	3.36	1.51
<i>For Colors, Add</i>	<i>0.04</i>	

33 Utilities**33 50 Hydrocarbon Utilities****33 52 Hydrocarbon Transmission and Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 52 16 23-0003	LF	3/4" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe	3.72	1.61
		<i>For SDR 13.5, Deduct</i>	-0.08	
		<i>For Colors, Add</i>	0.05	
33 52 16 23-0004	LF	1" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe	4.10	1.72
		<i>For SDR 13.5, Deduct</i>	-0.10	
		<i>For Colors, Add</i>	0.07	
33 52 16 23-0005	LF	1-1/4" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe	4.48	1.83
		<i>For SDR 13.5, Deduct</i>	-0.12	
		<i>For Colors, Add</i>	0.08	
33 52 16 23-0006	LF	1-1/2" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe	5.13	2.20
		<i>For SDR 13.5, Deduct</i>	-0.18	
		<i>For Colors, Add</i>	0.11	
33 52 16 23-0007	LF	2" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe	5.79	2.39
		<i>For SDR 13.5, Deduct</i>	-0.23	
		<i>For SDR 15.5, Deduct</i>	-0.43	
		<i>For Colors, Add</i>	0.15	
33 52 16 23-0008	LF	2-1/2" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe	7.24	2.80
		<i>For SDR 13.5, Deduct</i>	-0.39	
		<i>For SDR 15.5, Deduct</i>	-0.71	
		<i>For Colors, Add</i>	0.25	
33 52 16 23-0009	LF	3" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe	8.81	3.33
		<i>For SDR 13.5, Deduct</i>	-0.53	
		<i>For SDR 15.5, Deduct</i>	-0.97	
		<i>For Colors, Add</i>	0.34	
33 52 16 23-0010	LF	4" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe	14.13	3.80
		<i>For SDR 13.5, Deduct</i>	-0.97	
		<i>For SDR 15.5, Deduct</i>	-1.79	
		<i>For Colors, Add</i>	0.63	
33 52 16 23-0011	LF	5" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe	17.79	3.80
		<i>For SDR 13.5, Deduct</i>	-1.35	
		<i>For SDR 15.5, Deduct</i>	-2.49	
		<i>For Colors, Add</i>	0.87	
33 52 16 23-0012	LF	6" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe	21.54	3.80
		<i>For SDR 13.5, Deduct</i>	-1.73	
		<i>For SDR 15.5, Deduct</i>	-3.18	
		<i>For Colors, Add</i>	1.12	
33 52 16 23-0013	LF	8" Diameter, SDR 11, Medium Density Polyethylene (MDPE) Gas Distribution Pipe	31.76	4.75
		<i>For SDR 13.5, Deduct</i>	-2.88	
		<i>For SDR 15.5, Deduct</i>	-5.29	
		<i>For Colors, Add</i>	1.86	
33 52 16 26		High Density Polyethylene Piping for Natural Gas <small>(33 52 16)</small>		
33 52 16 26-0001		High Density Polyethylene (HDPE) Gas Distribution Piping <small>(33 52 16 26)</small>		
		Note: ASTM F2619, ASTM D2513, API 15 LE. Includes couplings, #12 tracer wire, helically wrapped around piping.		
33 52 16 26-0002	LF	1/2" Diameter, SDR 9 High Density Polyethylene (HDPE) Gas Distribution Pipe	3.41	1.51
33 52 16 26-0003	LF	3/4" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe	3.80	1.61
		<i>For SDR 13.5, Deduct</i>	-0.09	
33 52 16 26-0004	LF	1" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe	4.17	1.72
		<i>For SDR 13.5, Deduct</i>	-0.11	
33 52 16 26-0005	LF	1-1/4" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe	4.59	1.83
		<i>For SDR 13.5, Deduct</i>	-0.14	
33 52 16 26-0006	LF	1-1/2" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe	5.28	2.20
		<i>For SDR 13.5, Deduct</i>	-0.20	
33 52 16 26-0007	LF	2" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe	5.98	2.39
		<i>For SDR 13.5, Deduct</i>	-0.26	
		<i>For SDR 15.5, Deduct</i>	-0.47	
		<i>For SDR 17, Deduct</i>	-0.68	
33 52 16 26-0008	LF	2-1/2" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe	7.55	2.80
		<i>For SDR 13.5, Deduct</i>	-0.42	
		<i>For SDR 15.5, Deduct</i>	-0.78	
		<i>For SDR 17, Deduct</i>	-1.13	
33 52 16 26-0009	LF	3" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe	9.24	3.33
		<i>For SDR 13.5, Deduct</i>	-0.58	
		<i>For SDR 15.5, Deduct</i>	-1.07	
		<i>For SDR 17, Deduct</i>	-1.55	
		<i>For SDR 21, Deduct</i>	-2.12	
33 52 16 26-0010	LF	4" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe	14.91	3.80
		<i>For SDR 13.5, Deduct</i>	-1.07	
		<i>For SDR 15.5, Deduct</i>	-1.97	
		<i>For SDR 17, Deduct</i>	-2.86	
		<i>For SDR 21, Deduct</i>	-3.91	
33 52 16 26-0011	LF	6" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe	22.94	3.80
		<i>For SDR 13.5, Deduct</i>	-1.90	
		<i>For SDR 15.5, Deduct</i>	-3.50	
		<i>For SDR 17, Deduct</i>	-5.08	
		<i>For SDR 21, Deduct</i>	-6.95	
33 52 16 26-0012	LF	8" Diameter, SDR 11 High Density Polyethylene (HDPE) Gas Distribution Pipe	34.08	4.75
		<i>For SDR 13.5, Deduct</i>	-3.17	
		<i>For SDR 15.5, Deduct</i>	-5.82	
		<i>For SDR 17, Deduct</i>	-8.45	
		<i>For SDR 21, Deduct</i>	-11.57	



Utilities	33	CS
Hydrocarbon Utilities	33 50	
Hydrocarbon Utility Pressure Regulation	33 53	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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33 53 Hydrocarbon Utility Pressure Regulation (33 50)

33 53 16 Gas Hydrocarbon Pressure Regulation (33 53)

33 53 16 00-0001 Gas Pressure Regulators With Screwed And Flanged Ends (33 53 16)

33 53 16 00-0002	EA	3/4" Gas Pressure Regulator, Screwed End	162.62	15.42
33 53 16 00-0003	EA	1" Gas Pressure Regulator, Screwed End	166.12	15.42
33 53 16 00-0004	EA	1-1/4" Gas Pressure Regulator, Screwed End	174.52	18.31
33 53 16 00-0005	EA	1-1/2" Gas Pressure Regulator, Screwed End	553.32	21.20
33 53 16 00-0006	EA	2" Gas Pressure Regulator, Screwed End	597.59	32.84
33 53 16 00-0007	EA	3" Gas Pressure Regulator, Screwed End	1,663.60	73.67
33 53 16 00-0008	EA	4" Gas Pressure Regulator, Screwed End	2,306.21	97.63

33 56 Hydrocarbon Storage (33 50)

33 56 13 Aboveground Hydrocarbon Storage Tanks (33 56)

See CSI section 23 13 23 00-0000 for aboveground storage tanks.

33 56 33 Underground Hydrocarbon Storage (33 56)

See CSI section 23 13 13 00-0000 for underground storage tanks.

33 59 Hydrocarbon Utility Metering (33 50)

33 59 11 Diaphragm/Bellows Hydrocarbons Meters (33 59)

33 59 11 00-0001 Diaphragm Meters (33 59 11)

Note: With standard direct-digital reading maximum working pressures 5 lbs to 100 lbs, threaded connections. Excludes pressure and temperature compensation.

33 59 11 00-0002	EA	250 CF/Hour Gas Diaphragm Meter At 5 LB, Direct Digital, Threaded	418.13	60.36
		For Temperature And Pressure Compensation, Add	8.40	
		For Pulsers, Add	26.50	
33 59 11 00-0003	EA	425 CF/Hour Gas Diaphragm Meter At 10 LB, Direct Digital, Threaded	800.74	92.30
		For Temperature And Pressure Compensation, Add	8.40	
		For Pulsers, Add	26.50	
33 59 11 00-0004	EA	425 CF/Hour Gas Diaphragm Meter At 25 LB, Direct Digital, Threaded	928.06	92.30
		For Temperature And Pressure Compensation, Add	8.40	
		For Pulsers, Add	26.50	
33 59 11 00-0005	EA	800 CF/Hour Gas Diaphragm Meter At 20 LB, Direct Digital, Threaded	1,953.12	115.38
		For Temperature And Pressure Compensation, Add	8.40	
		For Pulsers, Add	26.50	
33 59 11 00-0006	EA	1,000 CF/Hour Gas Diaphragm Meter At 25 LB, Direct Digital, Threaded	2,220.09	142.00
		For Temperature And Pressure Compensation, Add	8.40	
		For Pulsers, Add	26.50	
33 59 11 00-0007	EA	800 CF/Hour Gas Diaphragm Meter At 100 LB, Direct Digital, Threaded	2,862.88	115.38
		For Temperature And Pressure Compensation, Add	8.40	
		For Pulsers, Add	26.50	
33 59 11 00-0008	EA	1,000 CF/Hour Gas Diaphragm Meter At 100 LB, Direct Digital, Threaded	3,199.09	142.00
		For Temperature And Pressure Compensation, Add	8.40	
		For Pulsers, Add	26.50	
33 59 11 00-0009	EA	1,400 CF/Hour Gas Diaphragm Meter At 100 LB, Direct Digital, Threaded	4,194.35	150.89
		For Temperature And Pressure Compensation, Add	8.40	
		For Pulsers, Add	26.50	
33 59 11 00-0010	EA	2,300 CF/Hour Gas Diaphragm Meter At 100 LB, Direct Digital, Threaded	5,908.95	177.51
		For Temperature And Pressure Compensation, Add	8.40	
		For Pulsers, Add	26.50	
33 59 11 00-0011	EA	5,000 CF/Hour Gas Diaphragm Meter At 100 LB, Direct Digital, Threaded	9,045.51	292.89
		For Temperature And Pressure Compensation, Add	8.40	
		For Pulsers, Add	26.50	

33 59 16 Hydrocarbons Turbine Meters (33 59)

33 59 16 00-0001 Gas Turbine Meters With Direct-Digital Reading (33 59 16)

Note: Maximum working pressure 175 PSI, flanged end connections.

33 59 16 00-0002	EA	4", 18,000 CF/Hour Gas Turbine Meter 175 PSI, Direct Digital, Flanged	7,241.08	286.15
33 59 16 00-0003	EA	6", 30,000 CF/Hour Gas Turbine Meter 175 PSI, Direct Digital, Flanged	7,624.33	332.31
33 59 16 00-0004	EA	8", 60,000 CF/Hour Gas Turbine Meter 175 PSI, Direct Digital, Flanged	11,812.57	393.99
33 59 16 00-0005	EA	10", 90,000 CF/Hour Gas Turbine Meter 175 PSI, Direct Digital, Flanged	22,885.11	479.64
33 59 16 00-0006	EA	12", 150,000 CF/Hour Gas Turbine Meter 175 PSI, Direct Digital, Flanged	38,082.26	599.54

33 60 Hydronic And Steam Energy Utilities (33)

33 61 Hydronic Energy Distribution (33 60)

33 61 13 Buried Hydronic Energy Distribution (33 61)

33 61 13 00-0001 Glass Lined Steel Piping (33 61 13)

33 61 13 00-0002 Glass Lined Steel Pipe (33 61 13 00-0001)

Note: 150 PSIG

33 61 13 00-0003	EA	4" X 1' Glass Lined Steel Pipe	913.41	
33 61 13 00-0004	EA	4" X 2' Glass Lined Steel Pipe	1,007.97	

33 Utilities**33 60 Hydronic And Steam Energy Utilities****33 61 Hydronic Energy Distribution**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 61 13 00-0005	EA	4" X 3' Glass Lined Steel Pipe.....	1,007.97	
33 61 13 00-0006	EA	4" X 4' Glass Lined Steel Pipe.....	1,197.10	
33 61 13 00-0007	EA	4" X 5' Glass Lined Steel Pipe.....	1,699.46	
33 61 13 00-0008	EA	4" X 10' Glass Lined Steel Pipe.....	1,967.39	
33 61 13 00-0009	EA	6" X 1' Glass Lined Steel Pipe.....	765.65	
33 61 13 00-0010	EA	6" X 2' Glass Lined Steel Pipe.....	1,652.18	
33 61 13 00-0011	EA	6" X 3' Glass Lined Steel Pipe.....	1,652.18	
33 61 13 00-0012	EA	6" X 4' Glass Lined Steel Pipe.....	1,870.86	
33 61 13 00-0013	EA	6" X 5' Glass Lined Steel Pipe.....	3,015.46	
33 61 13 00-0014	EA	6" X 10' Glass Lined Steel Pipe.....	3,490.11	
33 61 13 00-0015	EA	8" X 1' Glass Lined Steel Pipe.....	1,884.58	
33 61 13 00-0016	EA	8" X 2' Glass Lined Steel Pipe.....	2,268.74	
33 61 13 00-0017	EA	8" X 3' Glass Lined Steel Pipe.....	2,268.74	
33 61 13 00-0018	EA	8" X 4' Glass Lined Steel Pipe.....	2,608.54	
33 61 13 00-0019	EA	8" X 5' Glass Lined Steel Pipe.....	3,531.48	
33 61 13 00-0020	EA	8" X 10' Glass Lined Steel Pipe.....	4,013.13	
33 61 13 00-0021	EA	12" X 1' Glass Lined Steel Pipe.....	5,106.68	
33 61 13 00-0022	EA	12" X 2' Glass Lined Steel Pipe.....	5,106.68	
33 61 13 00-0023	EA	12" X 3' Glass Lined Steel Pipe.....	5,291.86	
33 61 13 00-0024	EA	12" X 4' Glass Lined Steel Pipe.....	5,643.44	
33 61 13 00-0025	EA	12" X 5' Glass Lined Steel Pipe.....	6,331.90	
33 61 13 00-0026	EA	12" X 10' Glass Lined Steel Pipe.....	7,820.19	
33 61 13 00-0027	EA	16" X 10' Glass Lined Steel Pipe.....	10,652.17	
33 61 13 00-0028		90 Degree Elbow, Glass Lined Steel Fittings (33 61 13 00-0001)		
		Note: 150 PSIG		
33 61 13 00-0029	EA	4" 90 Degree Elbow, Glass Lined Steel Fittings.....	1,172.04	
33 61 13 00-0030	EA	6" 90 Degree Elbow, Glass Lined Steel Fittings.....	1,898.37	
33 61 13 00-0031	EA	8" 90 Degree Elbow, Glass Lined Steel Fittings.....	3,432.02	
33 61 13 00-0032	EA	10" 90 Degree Elbow, Glass Lined Steel Fittings.....	6,022.75	
33 61 13 00-0033	EA	12" 90 Degree Elbow, Glass Lined Steel Fittings.....	8,962.85	
33 61 13 00-0034	EA	14" 90 Degree Elbow, Glass Lined Steel Fittings.....	10,509.07	
33 61 13 00-0035	EA	16" 90 Degree Elbow, Glass Lined Steel Fittings.....	12,054.97	
33 61 13 00-0036		45 Degree Elbow, Glass Lined Steel Fittings (33 61 13 00-0001)		
		Note: 150 PSIG		
33 61 13 00-0037	EA	4" 45 Degree Elbow, Glass Lined Steel Fittings.....	1,150.37	
33 61 13 00-0038	EA	6" 45 Degree Elbow, Glass Lined Steel Fittings.....	1,898.37	
33 61 13 00-0039	EA	8" 45 Degree Elbow, Glass Lined Steel Fittings.....	3,581.75	
33 61 13 00-0040	EA	10" 45 Degree Elbow, Glass Lined Steel Fittings.....	9,876.19	
33 61 13 00-0041	EA	12" 45 Degree Elbow, Glass Lined Steel Fittings.....	8,962.85	
33 61 13 00-0042	EA	14" 45 Degree Elbow, Glass Lined Steel Fittings.....	10,509.07	
33 61 13 00-0043	EA	16" 45 Degree Elbow, Glass Lined Steel Fittings.....	12,054.97	
33 61 13 00-0044		Tee, Glass Lined Steel Fittings (33 61 13 00-0001)		
		Note: 150 PSIG		
33 61 13 00-0045	EA	4" Tee, Glass Lined Steel Fittings.....	1,824.56	
33 61 13 00-0046	EA	6" Tee, Glass Lined Steel Fittings.....	3,092.22	
33 61 13 00-0047	EA	8" Tee, Glass Lined Steel Fittings.....	4,530.98	
33 61 13 00-0048	EA	10" Tee, Glass Lined Steel Fittings.....	7,756.86	
33 61 13 00-0049	EA	12" Tee, Glass Lined Steel Fittings.....	11,010.68	
33 61 13 00-0050	EA	14" Tee, Glass Lined Steel Fittings.....	12,974.23	
33 61 13 00-0051	EA	16" Tee, Glass Lined Steel Fittings.....	14,892.71	
33 61 13 00-0052		Prefabricated/Preinsulated Pipe (33 61 13)		
		Note: Includes coupling per full length of pipe. Excludes excavation and backfill. See CSI section 23 01 20 91-0025 for purging of existing system.		
33 61 13 00-0053		Preinsulated Schedule 40 Black Steel Pipe (33 61 13 00-0052)		
		Note: With polyurethane insulation and non-metallic casing. Excludes excavation or backfill.		
33 61 13 00-0054		Standard Black Steel Carrier Pipe (33 61 13 00-0053)		
		Note: With 1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0055	LF	3/4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	48.95	
		For High Density Polyethylene (HDPE) Jacket, Add	0.55	
		For Schedule 80 Pipe, Add	5.51	
33 61 13 00-0056	LF	1" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	53.41	
		For High Density Polyethylene (HDPE) Jacket, Add	0.61	
		For Schedule 80 Pipe, Add	6.06	
33 61 13 00-0057	LF	1-1/4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	58.66	
		For High Density Polyethylene (HDPE) Jacket, Add	0.68	
		For Schedule 80 Pipe, Add	6.83	
33 61 13 00-0058	LF	1-1/2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	62.53	
		For High Density Polyethylene (HDPE) Jacket, Add	0.73	
		For Schedule 80 Pipe, Add	7.33	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0059 LF 2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	65.79	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.77	
<i>For Schedule 80 Pipe, Add</i>	7.66	
33 61 13 00-0060 LF 2-1/2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	75.62	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.83	
<i>For Schedule 80 Pipe, Add</i>	8.33	
33 61 13 00-0061 LF 3" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	86.44	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.90	
<i>For Schedule 80 Pipe, Add</i>	8.99	
33 61 13 00-0062 LF 4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	109.44	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.13	
<i>For Schedule 80 Pipe, Add</i>	11.32	
33 61 13 00-0063 LF 5" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	137.14	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.45	
<i>For Schedule 80 Pipe, Add</i>	14.49	
33 61 13 00-0064 LF 6" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	159.89	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.68	
<i>For Schedule 80 Pipe, Add</i>	16.82	
33 61 13 00-0065 LF 8" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	213.99	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2.45	
<i>For Schedule 80 Pipe, Add</i>	24.48	
33 61 13 00-0066 LF 10" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	270.52	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	3.23	
<i>For Schedule 80 Pipe, Add</i>	32.30	
33 61 13 00-0067 LF 12" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	335.62	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.03	
<i>For Schedule 80 Pipe, Add</i>	40.30	
33 61 13 00-0068 Standard Black Steel Carrier Pipe <small>(33 61 13 00-0053)</small>		
Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0069 LF 3/4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	51.70	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.61	
<i>For Schedule 80 Pipe, Add</i>	6.06	
33 61 13 00-0070 LF 1" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	56.44	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.67	
<i>For Schedule 80 Pipe, Add</i>	6.67	
33 61 13 00-0071 LF 1-1/4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	62.07	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.75	
<i>For Schedule 80 Pipe, Add</i>	7.51	
33 61 13 00-0072 LF 1-1/2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	66.20	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.81	
<i>For Schedule 80 Pipe, Add</i>	8.06	
33 61 13 00-0073 LF 2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	69.62	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.84	
<i>For Schedule 80 Pipe, Add</i>	8.43	
33 61 13 00-0074 LF 2-1/2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	79.78	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.92	
<i>For Schedule 80 Pipe, Add</i>	9.16	
33 61 13 00-0075 LF 3" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	90.93	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.99	
<i>For Schedule 80 Pipe, Add</i>	9.89	
33 61 13 00-0076 LF 4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	115.11	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.25	
<i>For Schedule 80 Pipe, Add</i>	12.46	
33 61 13 00-0077 LF 5" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	144.39	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.59	
<i>For Schedule 80 Pipe, Add</i>	15.94	
33 61 13 00-0078 LF 6" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	168.30	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.85	
<i>For Schedule 80 Pipe, Add</i>	18.50	
33 61 13 00-0079 LF 8" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	226.22	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2.69	
<i>For Schedule 80 Pipe, Add</i>	26.92	

33 Utilities**33 60 Hydronic And Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0080	LF	10" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	286.67	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	3.55	
		<i>For Schedule 80 Pipe, Add</i>	35.53	
33 61 13 00-0081	LF	12" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	355.77	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.43	
		<i>For Schedule 80 Pipe, Add</i>	44.33	
33 61 13 00-0082		Standard Black Steel Carrier Pipe <small>(33 61 13 00-0053)</small>		
		Note: With 1-1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0083	LF	3/4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	53.08	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.63	
		<i>For Schedule 80 Pipe, Add</i>	6.34	
33 61 13 00-0084	LF	1" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	57.95	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.70	
		<i>For Schedule 80 Pipe, Add</i>	6.97	
33 61 13 00-0085	LF	1-1/4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	63.78	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.79	
		<i>For Schedule 80 Pipe, Add</i>	7.85	
33 61 13 00-0086	LF	1-1/2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	68.03	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.84	
		<i>For Schedule 80 Pipe, Add</i>	8.43	
33 61 13 00-0087	LF	2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	71.53	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.88	
		<i>For Schedule 80 Pipe, Add</i>	8.81	
33 61 13 00-0088	LF	2-1/2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	81.86	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.96	
		<i>For Schedule 80 Pipe, Add</i>	9.57	
33 61 13 00-0089	LF	3" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	93.18	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.03	
		<i>For Schedule 80 Pipe, Add</i>	10.34	
33 61 13 00-0090	LF	4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	117.94	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.30	
		<i>For Schedule 80 Pipe, Add</i>	13.02	
33 61 13 00-0091	LF	5" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	148.01	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.67	
		<i>For Schedule 80 Pipe, Add</i>	16.66	
33 61 13 00-0092	LF	6" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	172.50	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.93	
		<i>For Schedule 80 Pipe, Add</i>	19.34	
33 61 13 00-0093	LF	8" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	232.34	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2.81	
		<i>For Schedule 80 Pipe, Add</i>	28.15	
33 61 13 00-0094	LF	10" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	294.74	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	3.71	
		<i>For Schedule 80 Pipe, Add</i>	37.15	
33 61 13 00-0095	LF	12" Diameter Preinsulated Schedule 40 Black Steel Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	365.84	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.63	
		<i>For Schedule 80 Pipe, Add</i>	46.34	
33 61 13 00-0096		Standard Black Steel Carrier Pipe <small>(33 61 13 00-0053)</small>		
		Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0097	LF	3/4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	55.15	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.68	
		<i>For Schedule 80 Pipe, Add</i>	6.75	
33 61 13 00-0098	LF	1" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	60.22	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.74	
		<i>For Schedule 80 Pipe, Add</i>	7.42	
33 61 13 00-0099	LF	1-1/4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	66.34	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.84	
		<i>For Schedule 80 Pipe, Add</i>	8.36	
33 61 13 00-0100	LF	1-1/2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	70.77	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.90	
		<i>For Schedule 80 Pipe, Add</i>	8.97	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0101 LF 2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	74.40	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.94	
<i>For Schedule 80 Pipe, Add</i>	9.38	
33 61 13 00-0102 LF 2-1/2" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	84.98	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.02	
<i>For Schedule 80 Pipe, Add</i>	10.20	
33 61 13 00-0103 LF 3" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	96.55	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.10	
<i>For Schedule 80 Pipe, Add</i>	11.01	
33 61 13 00-0104 LF 4" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	122.18	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.39	
<i>For Schedule 80 Pipe, Add</i>	13.87	
33 61 13 00-0105 LF 5" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	153.44	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.77	
<i>For Schedule 80 Pipe, Add</i>	17.75	
33 61 13 00-0106 LF 6" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	178.81	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2.06	
<i>For Schedule 80 Pipe, Add</i>	20.60	
33 61 13 00-0107 LF 8" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	241.52	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	3.00	
<i>For Schedule 80 Pipe, Add</i>	29.98	
33 61 13 00-0108 LF 10" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	306.86	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	3.96	
<i>For Schedule 80 Pipe, Add</i>	39.57	
33 61 13 00-0109 LF 12" Diameter Preinsulated Schedule 40 Black Steel Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	380.95	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.94	
<i>For Schedule 80 Pipe, Add</i>	49.36	
33 61 13 00-0110 Preinsulated Black Steel Fittings <small>(33 61 13 00-0052)</small>		
Note: No excavation or backfill.		
33 61 13 00-0111 Elbows <small>(33 61 13 00-0110)</small>		
33 61 13 00-0112 Elbows <small>(33 61 13 00-0111)</small>		
Note: With 1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0113 EA 3/4" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	381.84	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.66	
33 61 13 00-0114 EA 1" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	396.14	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.79	
33 61 13 00-0115 EA 1-1/4" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	455.44	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.59	
33 61 13 00-0116 EA 1-1/2" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	513.36	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.19	
33 61 13 00-0117 EA 2" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	605.19	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.49	
33 61 13 00-0118 EA 2-1/2" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	726.73	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.79	
33 61 13 00-0119 EA 3" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	844.52	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.99	
33 61 13 00-0120 EA 4" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	985.60	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.49	
33 61 13 00-0121 EA 5" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,167.87	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	13.49	
33 61 13 00-0122 EA 6" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,284.03	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	15.32	
33 61 13 00-0123 EA 8" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,798.92	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	22.15	
33 61 13 00-0124 EA 10" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,417.31	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	28.31	
33 61 13 00-0125 EA 12" Diameter Preinsulated Black Steel Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,076.18	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	37.47	

33 Utilities**33 60 Hydronic And Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR		TOTAL DIRECT		DEMOLITION	
CSI	UOM	DESCRIPTION	UNIT COST	UNIT COST	UNIT COST
33 61 13 00-0126		Elbows (33 61 13 00-0111)			
		Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.			
33 61 13 00-0127	EA	3/4" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	403.07		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.09		
33 61 13 00-0128	EA	1" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	417.87		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.23		
33 61 13 00-0129	EA	1-1/4" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	480.17		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.09		
33 61 13 00-0130	EA	1-1/2" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	540.33		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.73		
33 61 13 00-0131	EA	2" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	633.29		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.06		
33 61 13 00-0132	EA	2-1/2" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	755.95		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.38		
33 61 13 00-0133	EA	3" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	878.24		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.67		
33 61 13 00-0134	EA	4" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,024.94		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.28		
33 61 13 00-0135	EA	5" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,218.45		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	14.50		
33 61 13 00-0136	EA	6" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,341.48		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	16.47		
33 61 13 00-0137	EA	8" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,881.97		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	23.81		
33 61 13 00-0138	EA	10" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,523.46		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	30.43		
33 61 13 00-0139	EA	12" Diameter Preinsulated Black Steel Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,216.67		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	40.28		
33 61 13 00-0140		Elbows (33 61 13 00-0111)			
		Note: With 1-1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.			
33 61 13 00-0141	EA	3/4" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	424.30		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.51		
33 61 13 00-0142	EA	1" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	439.60		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.66		
33 61 13 00-0143	EA	1-1/4" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	504.90		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.58		
33 61 13 00-0144	EA	1-1/2" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	567.31		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.27		
33 61 13 00-0145	EA	2" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	661.39		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.62		
33 61 13 00-0146	EA	2-1/2" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	785.17		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.96		
33 61 13 00-0147	EA	3" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	911.96		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.34		
33 61 13 00-0148	EA	4" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,064.28		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.06		
33 61 13 00-0149	EA	5" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,269.03		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	15.51		
33 61 13 00-0150	EA	6" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,398.93		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	17.62		
33 61 13 00-0151	EA	8" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,965.02		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	25.47		
33 61 13 00-0152	EA	10" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,629.61		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	32.55		
33 61 13 00-0153	EA	12" Diameter Preinsulated Black Steel Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,357.17		
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	43.09		



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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33 61 13 00-0154

Elbows (33 61 13 00-0111)

Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.

33 61 13 00-0155	EA	3/4" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	445.53
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.94
33 61 13 00-0156	EA	1" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	461.33
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.10
33 61 13 00-0157	EA	1-1/4" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	529.62
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.08
33 61 13 00-0158	EA	1-1/2" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	594.28
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.81
33 61 13 00-0159	EA	2" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	689.49
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.18
33 61 13 00-0160	EA	2-1/2" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	814.40
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.55
33 61 13 00-0161	EA	3" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	945.68
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.01
33 61 13 00-0162	EA	4" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,103.62
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.85
33 61 13 00-0163	EA	5" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,319.61
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	16.52
33 61 13 00-0164	EA	6" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,456.37
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	18.77
33 61 13 00-0165	EA	8" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,048.07
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	27.13
33 61 13 00-0166	EA	10" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,735.76
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	34.68
33 61 13 00-0167	EA	12" Diameter Preinsulated Black Steel Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,497.66
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	45.89

33 61 13 00-0168

Tees (33 61 13 00-0110)

33 61 13 00-0169

Tees (33 61 13 00-0168)

Note: With 1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.

33 61 13 00-0170	EA	3/4" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	568.46
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.41
33 61 13 00-0171	EA	1" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	589.71
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.61
33 61 13 00-0172	EA	1-1/4" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	678.06
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.79
33 61 13 00-0173	EA	1-1/2" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	764.45
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.68
33 61 13 00-0174	EA	2" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	901.75
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.13
33 61 13 00-0175	EA	2-1/2" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,083.65
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.57
33 61 13 00-0176	EA	3" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,260.03
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	13.35
33 61 13 00-0177	EA	4" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,470.52
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	15.58
33 61 13 00-0178	EA	5" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,744.30
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	20.03
33 61 13 00-0179	EA	6" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,915.27
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	22.75
33 61 13 00-0180	EA	8" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,680.51
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	32.89
33 61 13 00-0181	EA	10" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,606.52
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	42.04

33 Utilities**33 60 Hydronic And Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0182	EA	12" Diameter Preinsulated Black Steel Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	4,586.17	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	55.64	
33 61 13 00-0183		Tees <small>(33 61 13 00-0168)</small>		
		Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0184	EA	3/4" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	599.99	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.04	
33 61 13 00-0185	EA	1" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	621.98	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.25	
33 61 13 00-0186	EA	1-1/4" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	714.77	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.53	
33 61 13 00-0187	EA	1-1/2" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	804.51	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.48	
33 61 13 00-0188	EA	2" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	943.47	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.96	
33 61 13 00-0189	EA	2-1/2" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,127.05	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.44	
33 61 13 00-0190	EA	3" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,310.10	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	14.35	
33 61 13 00-0191	EA	4" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,528.94	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	16.75	
33 61 13 00-0192	EA	5" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,819.41	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	21.53	
33 61 13 00-0193	EA	6" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,000.58	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	24.46	
33 61 13 00-0194	EA	8" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,803.83	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	35.35	
33 61 13 00-0195	EA	10" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,764.15	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	45.19	
33 61 13 00-0196	EA	12" Diameter Preinsulated Black Steel Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	4,794.80	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	59.81	
33 61 13 00-0197		Tees <small>(33 61 13 00-0168)</small>		
		Note: With 1-1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0198	EA	3/4" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	631.51	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.67	
33 61 13 00-0199	EA	1" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	654.25	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.90	
33 61 13 00-0200	EA	1-1/4" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	751.49	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.26	
33 61 13 00-0201	EA	1-1/2" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	844.57	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.28	
33 61 13 00-0202	EA	2" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	985.20	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.80	
33 61 13 00-0203	EA	2-1/2" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,170.44	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	13.31	
33 61 13 00-0204	EA	3" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,360.17	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	15.36	
33 61 13 00-0205	EA	4" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,587.36	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	17.91	
33 61 13 00-0206	EA	5" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,894.52	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	23.03	
33 61 13 00-0207	EA	6" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,085.89	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	26.16	
33 61 13 00-0208	EA	8" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,927.16	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	37.82	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0209 EA 10" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,921.78	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	48.34	
33 61 13 00-0210 EA 12" Diameter Preinsulated Black Steel Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	5,003.44	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	63.98	
33 61 13 00-0211 Tees <small>(33 61 13 00-0168)</small>		
<i>Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.</i>		
33 61 13 00-0212 EA 3/4" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	663.04	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.30	
33 61 13 00-0213 EA 1" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	686.52	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.54	
33 61 13 00-0214 EA 1-1/4" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	788.21	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.00	
33 61 13 00-0215 EA 1-1/2" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	884.63	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	13.09	
33 61 13 00-0216 EA 2" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,026.93	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	13.63	
33 61 13 00-0217 EA 2-1/2" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,213.84	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	14.18	
33 61 13 00-0218 EA 3" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,410.25	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	16.36	
33 61 13 00-0219 EA 4" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,645.77	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	19.08	
33 61 13 00-0220 EA 5" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,969.63	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	24.54	
33 61 13 00-0221 EA 6" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,171.20	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	27.87	
33 61 13 00-0222 EA 8" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,050.49	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	40.29	
33 61 13 00-0223 EA 10" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	4,079.42	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	51.49	
33 61 13 00-0224 EA 12" Diameter Preinsulated Black Steel Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	5,212.07	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	68.15	
33 61 13 00-0225 Reducers <small>(33 61 13 00-0110)</small>		
33 61 13 00-0226 Reducers <small>(33 61 13 00-0225)</small>		
<i>Note: With 1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.</i>		
33 61 13 00-0227 EA 3/4" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	323.86	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.70	
33 61 13 00-0228 EA 1" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	336.22	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.81	
33 61 13 00-0229 EA 1-1/4" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	386.83	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.47	
33 61 13 00-0230 EA 1-1/2" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	436.77	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.97	
33 61 13 00-0231 EA 2" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	518.35	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.22	
33 61 13 00-0232 EA 2-1/2" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	634.36	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.47	
33 61 13 00-0233 EA 3" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	731.77	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.46	
33 61 13 00-0234 EA 4" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	850.12	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.71	
33 61 13 00-0235 EA 5" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,004.03	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.19	
33 61 13 00-0236 EA 6" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,102.18	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.71	

33 Utilities**33 60 Hydronic And Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0237 EA 8" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,541.67	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	18.38	
33 61 13 00-0238 EA 10" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,076.93	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	23.49	
33 61 13 00-0239 EA 12" Diameter Preinsulated Black Steel Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,635.59	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	31.10	
33 61 13 00-0240 Reducers <small>(33 61 13 00-0225)</small>		
Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0241 EA 3/4" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	341.48	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.05	
33 61 13 00-0242 EA 1" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	354.25	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.17	
33 61 13 00-0243 EA 1-1/4" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	407.35	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.88	
33 61 13 00-0244 EA 1-1/2" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	459.16	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.42	
33 61 13 00-0245 EA 2" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	541.67	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.69	
33 61 13 00-0246 EA 2-1/2" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	658.61	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.95	
33 61 13 00-0247 EA 3" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	759.76	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.02	
33 61 13 00-0248 EA 4" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	882.77	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.36	
33 61 13 00-0249 EA 5" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,046.01	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.03	
33 61 13 00-0250 EA 6" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,149.86	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	13.67	
33 61 13 00-0251 EA 8" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,610.60	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	19.76	
33 61 13 00-0252 EA 10" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,165.04	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	25.26	
33 61 13 00-0253 EA 12" Diameter Preinsulated Black Steel Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,752.21	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	33.43	
33 61 13 00-0254 Reducers <small>(33 61 13 00-0225)</small>		
Note: With 1-1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0255 EA 3/4" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	359.10	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.40	
33 61 13 00-0256 EA 1" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	372.29	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.53	
33 61 13 00-0257 EA 1-1/4" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	427.87	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.29	
33 61 13 00-0258 EA 1-1/2" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	481.55	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.87	
33 61 13 00-0259 EA 2" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	565.00	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.15	
33 61 13 00-0260 EA 2-1/2" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	682.87	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.44	
33 61 13 00-0261 EA 3" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	787.75	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.58	
33 61 13 00-0262 EA 4" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	915.42	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.01	
33 61 13 00-0263 EA 5" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,087.99	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.87	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0264 EA 6" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,197.54	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	14.62	
33 61 13 00-0265 EA 8" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,679.53	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	21.14	
33 61 13 00-0266 EA 10" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,253.14	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	27.02	
33 61 13 00-0267 EA 12" Diameter Preinsulated Black Steel Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,868.82	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	35.76	
33 61 13 00-0268 Reducers <small>(33 61 13 00-0225)</small>		
Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0269 EA 3/4" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	376.72	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.76	
33 61 13 00-0270 EA 1" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	390.32	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.89	
33 61 13 00-0271 EA 1-1/4" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	448.40	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.70	
33 61 13 00-0272 EA 1-1/2" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	503.94	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.31	
33 61 13 00-0273 EA 2" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	588.32	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.62	
33 61 13 00-0274 EA 2-1/2" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	707.12	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.92	
33 61 13 00-0275 EA 3" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	815.73	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.14	
33 61 13 00-0276 EA 4" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	948.07	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.67	
33 61 13 00-0277 EA 5" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,129.97	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	13.71	
33 61 13 00-0278 EA 6" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,245.22	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	15.58	
33 61 13 00-0279 EA 8" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,748.46	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	22.52	
33 61 13 00-0280 EA 10" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,341.25	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	28.78	
33 61 13 00-0281 EA 12" Diameter Preinsulated Black Steel Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,985.43	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	38.09	
33 61 13 00-0282 Preinsulated Type K Copper Pipe <small>(33 61 13 00-0052)</small>		
Note: With polyurethane insulation and non-metallic casing. Excludes excavation or backfill.		
33 61 13 00-0283 Type K Copper Carrier Pipe <small>(33 61 13 00-0282)</small>		
Note: With 1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0284 LF 3/4" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	41.04	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.41	
33 61 13 00-0285 LF 1" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	44.73	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.45	
33 61 13 00-0286 LF 1-1/4" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	48.94	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.51	
33 61 13 00-0287 LF 1-1/2" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	52.12	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.54	
33 61 13 00-0288 LF 2" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	54.90	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.57	
33 61 13 00-0289 LF 2-1/2" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	63.63	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.62	
33 61 13 00-0290 LF 3" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	73.30	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.67	
33 61 13 00-0291 LF 4" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	92.88	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.84	

33 Utilities**33 60 Hydronic And Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0292	LF	5" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	116.05	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.07	
33 61 13 00-0293	LF	6" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	135.38	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.25	
33 61 13 00-0294	LF	8" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	179.00	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.82	
33 61 13 00-0295	LF	10" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	224.79	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2.40	
33 61 13 00-0296	LF	12" Diameter Preinsulated Type K Copper Pipe With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	278.64	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2.99	
33 61 13 00-0297		Type K Copper Carrier Pipe <small>(33 61 13 00-0292)</small>		
		Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0298	LF	3/4" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	43.08	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.45	
33 61 13 00-0299	LF	1" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	46.97	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.49	
33 61 13 00-0300	LF	1-1/4" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	51.47	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.56	
33 61 13 00-0301	LF	1-1/2" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	54.84	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.60	
33 61 13 00-0302	LF	2" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	57.74	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.63	
33 61 13 00-0303	LF	2-1/2" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	66.71	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.68	
33 61 13 00-0304	LF	3" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	76.64	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.73	
33 61 13 00-0305	LF	4" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	97.08	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.92	
33 61 13 00-0306	LF	5" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	121.42	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.18	
33 61 13 00-0307	LF	6" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	141.61	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.37	
33 61 13 00-0308	LF	8" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	188.08	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2.00	
33 61 13 00-0309	LF	10" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	236.76	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2.64	
33 61 13 00-0310	LF	12" Diameter Preinsulated Type K Copper Pipe With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	293.58	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	3.29	
33 61 13 00-0311		Type K Copper Carrier Pipe <small>(33 61 13 00-0292)</small>		
		Note: With 1-1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0312	LF	3/4" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	44.11	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.47	
33 61 13 00-0313	LF	1" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	48.10	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.52	
33 61 13 00-0314	LF	1-1/4" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	52.74	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.58	
33 61 13 00-0315	LF	1-1/2" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	56.20	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.63	
33 61 13 00-0316	LF	2" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	59.16	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.65	
33 61 13 00-0317	LF	2-1/2" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	68.26	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.71	
33 61 13 00-0318	LF	3" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	78.31	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.77	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0319 LF 4" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	99.18	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.97	
33 61 13 00-0320 LF 5" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	124.11	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.24	
33 61 13 00-0321 LF 6" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	144.73	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.43	
33 61 13 00-0322 LF 8" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	192.62	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2.09	
33 61 13 00-0323 LF 10" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	242.75	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2.76	
33 61 13 00-0324 LF 12" Diameter Preinsulated Type K Copper Pipe With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	301.05	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	3.44	
33 61 13 00-0325 Type K Copper Carrier Pipe <small>(33 61 13 00-0282)</small>		
<i>Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.</i>		
33 61 13 00-0326 LF 3/4" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	45.64	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.50	
33 61 13 00-0327 LF 1" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	49.78	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.55	
33 61 13 00-0328 LF 1-1/4" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	54.63	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.62	
33 61 13 00-0329 LF 1-1/2" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	58.23	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.67	
33 61 13 00-0330 LF 2" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	61.29	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.70	
33 61 13 00-0331 LF 2-1/2" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	70.57	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.76	
33 61 13 00-0332 LF 3" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	80.81	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	0.82	
33 61 13 00-0333 LF 4" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	102.33	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.03	
33 61 13 00-0334 LF 5" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	128.14	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.32	
33 61 13 00-0335 LF 6" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	149.41	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	1.53	
33 61 13 00-0336 LF 8" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	199.43	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2.22	
33 61 13 00-0337 LF 10" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	251.74	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	2.94	
33 61 13 00-0338 LF 12" Diameter Preinsulated Type K Copper Pipe With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	312.26	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	3.66	
33 61 13 00-0339 Preinsulated Copper Fittings <small>(33 61 13 00-0052)</small>		
33 61 13 00-0340 Elbows <small>(33 61 13 00-0339)</small>		
33 61 13 00-0341 Elbows <small>(33 61 13 00-0340)</small>		
<i>Note: With 1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.</i>		
33 61 13 00-0342 EA 3/4" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	318.85	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.66	
33 61 13 00-0343 EA 1" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	330.97	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.77	
33 61 13 00-0344 EA 1-1/4" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	380.69	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.43	
33 61 13 00-0345 EA 1-1/2" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	429.66	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.92	
33 61 13 00-0346 EA 2" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	508.81	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.17	

33 Utilities**33 60 Hydronic And Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0347	EA	2-1/2" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	613.78	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.41	
33 61 13 00-0348	EA	3" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	713.41	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.40	
33 61 13 00-0349	EA	4" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	832.59	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.63	
33 61 13 00-0350	EA	5" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	984.11	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.10	
33 61 13 00-0351	EA	6" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,080.89	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.61	
33 61 13 00-0352	EA	8" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,512.73	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	18.23	
33 61 13 00-0353	EA	10" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,036.02	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	23.30	
33 61 13 00-0354	EA	12" Diameter Preinsulated Type K Copper Elbow With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,587.72	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	30.83	
33 61 13 00-0355		Elbows <small>(33 61 13 00-0340)</small>		
		Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0356	EA	3/4" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	336.32	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.01	
33 61 13 00-0357	EA	1" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	348.85	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.13	
33 61 13 00-0358	EA	1-1/4" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	401.04	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.83	
33 61 13 00-0359	EA	1-1/2" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	451.86	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.36	
33 61 13 00-0360	EA	2" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	531.93	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.63	
33 61 13 00-0361	EA	2-1/2" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	637.83	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.89	
33 61 13 00-0362	EA	3" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	741.16	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.96	
33 61 13 00-0363	EA	4" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	864.96	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.28	
33 61 13 00-0364	EA	5" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,025.74	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.93	
33 61 13 00-0365	EA	6" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,128.17	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	13.55	
33 61 13 00-0366	EA	8" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,581.08	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	19.59	
33 61 13 00-0367	EA	10" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,123.38	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	25.04	
33 61 13 00-0368	EA	12" Diameter Preinsulated Type K Copper Elbow With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,703.35	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	33.15	
33 61 13 00-0369		Elbows <small>(33 61 13 00-0340)</small>		
		Note: With 1-1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0370	EA	3/4" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	353.79	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.36	
33 61 13 00-0371	EA	1" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	366.74	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.48	
33 61 13 00-0372	EA	1-1/4" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	421.39	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.24	
33 61 13 00-0373	EA	1-1/2" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	474.06	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.81	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0374 EA 2" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	555.06	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.09	
33 61 13 00-0375 EA 2-1/2" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	661.88	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.38	
33 61 13 00-0376 EA 3" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	768.91	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.51	
33 61 13 00-0377 EA 4" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	897.34	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.93	
33 61 13 00-0378 EA 5" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,067.36	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.77	
33 61 13 00-0379 EA 6" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,175.67	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	14.50	
33 61 13 00-0380 EA 8" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,649.29	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	20.96	
33 61 13 00-0381 EA 10" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,210.39	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	26.79	
33 61 13 00-0382 EA 12" Diameter Preinsulated Type K Copper Elbow With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,819.23	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	35.46	
33 61 13 00-0383 Elbows <small>(33 61 13 00-0340)</small>		
<i>Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.</i>		
33 61 13 00-0384 EA 3/4" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	371.27	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.71	
33 61 13 00-0385 EA 1" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	384.62	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.84	
33 61 13 00-0386 EA 1-1/4" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	441.74	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.65	
33 61 13 00-0387 EA 1-1/2" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	496.26	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.25	
33 61 13 00-0388 EA 2" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	578.19	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.55	
33 61 13 00-0389 EA 2-1/2" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	685.93	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.86	
33 61 13 00-0390 EA 3" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	796.66	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.07	
33 61 13 00-0391 EA 4" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	929.71	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.58	
33 61 13 00-0392 EA 5" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,108.99	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	13.60	
33 61 13 00-0393 EA 6" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,222.95	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	15.44	
33 61 13 00-0394 EA 8" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,717.64	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	22.33	
33 61 13 00-0395 EA 10" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,297.76	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	28.54	
33 61 13 00-0396 EA 12" Diameter Preinsulated Type K Copper Elbow With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,934.86	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	37.77	
33 61 13 00-0397 Tees <small>(33 61 13 00-0339)</small>		
33 61 13 00-0398 Tees <small>(33 61 13 00-0397)</small>		
<i>Note: With 1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.</i>		
33 61 13 00-0399 EA 3/4" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	474.75	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.92	
33 61 13 00-0400 EA 1" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	492.75	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.08	
33 61 13 00-0401 EA 1-1/4" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	566.82	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.06	

33 Utilities**33 60 Hydronic And Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61	13 00-0402	EA	1-1/2" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	639.87	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.79	
33 61	13 00-0403	EA	2" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	758.20	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.16	
33 61	13 00-0404	EA	2-1/2" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	915.36	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.52	
33 61	13 00-0405	EA	3" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,064.59	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.99	
33 61	13 00-0406	EA	4" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,242.46	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.82	
33 61	13 00-0407	EA	5" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,470.15	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	16.48	
33 61	13 00-0408	EA	6" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,612.42	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	18.72	
33 61	13 00-0409	EA	8" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,254.16	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	27.07	
33 61	13 00-0410	EA	10" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,038.02	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	34.60	
33 61	13 00-0411	EA	12" Diameter Preinsulated Type K Copper Tee With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,858.45	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	45.79	
33 61	13 00-0412		Tees <small>(33 61 13 00-0397)</small>		
			Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61	13 00-0413	EA	3/4" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	500.69	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.44	
33 61	13 00-0414	EA	1" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	519.30	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.61	
33 61	13 00-0415	EA	1-1/4" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	597.04	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.66	
33 61	13 00-0416	EA	1-1/2" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	672.84	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.45	
33 61	13 00-0417	EA	2" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	792.55	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.84	
33 61	13 00-0418	EA	2-1/2" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	951.07	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.24	
33 61	13 00-0419	EA	3" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,105.80	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.81	
33 61	13 00-0420	EA	4" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,290.54	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	13.78	
33 61	13 00-0421	EA	5" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,531.97	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	17.72	
33 61	13 00-0422	EA	6" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,682.63	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	20.13	
33 61	13 00-0423	EA	8" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,355.66	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	29.10	
33 61	13 00-0424	EA	10" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,167.76	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	37.19	
33 61	13 00-0425	EA	12" Diameter Preinsulated Type K Copper Tee With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	4,030.16	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	49.22	
33 61	13 00-0426		Tees <small>(33 61 13 00-0397)</small>		
			Note: With 1-1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61	13 00-0427	EA	3/4" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	526.64	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.96	
33 61	13 00-0428	EA	1" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	545.86	
			<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.14	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0429 EA 1-1/4" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	627.26	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.27	
33 61 13 00-0430 EA 1-1/2" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	705.80	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.11	
33 61 13 00-0431 EA 2" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	826.89	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.53	
33 61 13 00-0432 EA 2-1/2" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	986.79	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.95	
33 61 13 00-0433 EA 3" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,147.01	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.64	
33 61 13 00-0434 EA 4" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,338.61	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	14.74	
33 61 13 00-0435 EA 5" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,593.78	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	18.96	
33 61 13 00-0436 EA 6" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,753.17	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	21.53	
33 61 13 00-0437 EA 8" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,456.30	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	31.13	
33 61 13 00-0438 EA 10" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,295.49	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	39.79	
33 61 13 00-0439 EA 12" Diameter Preinsulated Type K Copper Tee With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	4,204.19	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	52.66	
33 61 13 00-0440 Tees <small>(33 61 13 00-0397)</small>		
<i>Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.</i>		
33 61 13 00-0441 EA 3/4" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	552.59	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.48	
33 61 13 00-0442 EA 1" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	572.42	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.68	
33 61 13 00-0443 EA 1-1/4" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	657.48	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.87	
33 61 13 00-0444 EA 1-1/2" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	738.77	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.77	
33 61 13 00-0445 EA 2" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	861.23	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.22	
33 61 13 00-0446 EA 2-1/2" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,022.50	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.67	
33 61 13 00-0447 EA 3" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,188.22	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	13.46	
33 61 13 00-0448 EA 4" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,386.69	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	15.71	
33 61 13 00-0449 EA 5" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,655.59	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	20.19	
33 61 13 00-0450 EA 6" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,823.38	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	22.94	
33 61 13 00-0451 EA 8" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,557.80	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	33.16	
33 61 13 00-0452 EA 10" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	3,425.23	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	42.38	
33 61 13 00-0453 EA 12" Diameter Preinsulated Type K Copper Tee With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	4,375.89	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	56.09	
33 61 13 00-0454 Reducers <small>(33 61 13 00-0339)</small>		
33 61 13 00-0455 Reducers <small>(33 61 13 00-0454)</small>		
<i>Note: With 1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.</i>		
33 61 13 00-0456 EA 3/4" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	270.68	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	3.87	

33 Utilities**33 60 Hydronic And Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0457	EA	1" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	281.16	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	3.96	
33 61 13 00-0458	EA	1-1/4" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	323.62	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.50	
33 61 13 00-0459	EA	1-1/2" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	365.90	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.91	
33 61 13 00-0460	EA	2" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	436.26	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.12	
33 61 13 00-0461	EA	2-1/2" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	536.55	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.32	
33 61 13 00-0462	EA	3" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	618.93	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.14	
33 61 13 00-0463	EA	4" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	718.94	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.17	
33 61 13 00-0464	EA	5" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	847.01	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.21	
33 61 13 00-0465	EA	6" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	928.82	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.46	
33 61 13 00-0466	EA	8" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,297.75	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	15.13	
33 61 13 00-0467	EA	10" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,751.34	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	19.34	
33 61 13 00-0468	EA	12" Diameter Preinsulated Type K Copper Reducer With 1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,219.44	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	25.59	
33 61 13 00-0469		Reducers <small>(33 61 13 00-0454)</small>		
		Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0470	EA	3/4" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	285.19	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.16	
33 61 13 00-0471	EA	1" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	296.01	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.26	
33 61 13 00-0472	EA	1-1/4" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	340.51	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.84	
33 61 13 00-0473	EA	1-1/2" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	384.33	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.28	
33 61 13 00-0474	EA	2" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	455.46	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.50	
33 61 13 00-0475	EA	2-1/2" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	556.51	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.72	
33 61 13 00-0476	EA	3" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	641.96	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.60	
33 61 13 00-0477	EA	4" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	745.81	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.70	
33 61 13 00-0478	EA	5" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	881.56	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	9.90	
33 61 13 00-0479	EA	6" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	968.06	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.25	
33 61 13 00-0480	EA	8" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,354.48	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	16.26	
33 61 13 00-0481	EA	10" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,823.85	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	20.79	
33 61 13 00-0482	EA	12" Diameter Preinsulated Type K Copper Reducer With 1" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,315.41	
		<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	27.51	
33 61 13 00-0483		Reducers <small>(33 61 13 00-0454)</small>		
		Note: With 1-1/2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0484 EA 3/4" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	299.69	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.45	
33 61 13 00-0485 EA 1" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	310.85	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.55	
33 61 13 00-0486 EA 1-1/4" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	357.40	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.18	
33 61 13 00-0487 EA 1-1/2" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	402.76	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.65	
33 61 13 00-0488 EA 2" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	474.65	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.89	
33 61 13 00-0489 EA 2-1/2" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	576.47	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.12	
33 61 13 00-0490 EA 3" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	664.99	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.06	
33 61 13 00-0491 EA 4" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	772.68	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.24	
33 61 13 00-0492 EA 5" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	916.11	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	10.60	
33 61 13 00-0493 EA 6" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,007.48	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.03	
33 61 13 00-0494 EA 8" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,410.89	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	17.40	
33 61 13 00-0495 EA 10" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,896.07	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	22.24	
33 61 13 00-0496 EA 12" Diameter Preinsulated Type K Copper Reducer With 1-1/2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,411.59	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	29.43	
33 61 13 00-0497 Reducers <small>(33 61 13 00-0454)</small>		
Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.		
33 61 13 00-0498 EA 3/4" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	314.19	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.74	
33 61 13 00-0499 EA 1" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	325.69	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	4.85	
33 61 13 00-0500 EA 1-1/4" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	374.29	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	5.52	
33 61 13 00-0501 EA 1-1/2" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	421.18	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.02	
33 61 13 00-0502 EA 2" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	493.84	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.27	
33 61 13 00-0503 EA 2-1/2" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	596.43	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	6.52	
33 61 13 00-0504 EA 3" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	688.03	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	7.52	
33 61 13 00-0505 EA 4" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	799.56	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	8.78	
33 61 13 00-0506 EA 5" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	950.66	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	11.29	
33 61 13 00-0507 EA 6" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,046.72	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	12.82	
33 61 13 00-0508 EA 8" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,467.62	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	18.53	
33 61 13 00-0509 EA 10" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	1,968.58	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	23.69	
33 61 13 00-0510 EA 12" Diameter Preinsulated Type K Copper Reducer With 2" Polyurethane Foam Insulation And Fiberglass Reinforced Polyester (FRP) Jacket.....	2,507.56	
<i>For High Density Polyethylene (HDPE) Jacket, Add</i>	31.35	

33 Utilities**33 60 Hydronic And Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

33 61 13 00-0511		Preinsulated Ductile Iron Carrier Pipe <small>(33 61 13 00-0052)</small> Note: With polyurethane insulation and non-metallic casing. Excludes excavation or backfill.	
33 61 13 00-0512		Ductile Iron Carrier Pipe <small>(33 61 13 00-0511)</small> Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.	
33 61 13 00-0513	LF	4" Diameter Preinsulated Ductile Iron Pipe With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	135.58
33 61 13 00-0514	LF	6" Diameter Preinsulated Ductile Iron Pipe With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	198.43
33 61 13 00-0515	LF	8" Diameter Preinsulated Ductile Iron Pipe With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	268.05
33 61 13 00-0516	LF	10" Diameter Preinsulated Ductile Iron Pipe With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	340.59
33 61 13 00-0517	LF	12" Diameter Preinsulated Ductile Iron Pipe With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	422.83
33 61 13 00-0518		Ductile Iron Carrier Pipe <small>(33 61 13 00-0511)</small> Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.	
33 61 13 00-0519	LF	4" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	144.34
33 61 13 00-0520	LF	6" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	211.43
33 61 13 00-0521	LF	8" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	286.98
33 61 13 00-0522	LF	10" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	365.57
33 61 13 00-0523	LF	12" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	453.99
33 61 13 00-0524	LF	14" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	496.81
33 61 13 00-0525	LF	16" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	559.89
33 61 13 00-0526	LF	18" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	630.28
33 61 13 00-0527	LF	20" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	693.75
33 61 13 00-0528	LF	24" Diameter Preinsulated Ductile Iron Pipe With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	821.69
33 61 13 00-0529		Preinsulated Ductile Iron Fittings <small>(33 61 13 00-0052)</small>	
33 61 13 00-0530		Elbows <small>(33 61 13 00-0529)</small>	
33 61 13 00-0531		Elbows <small>(33 61 13 00-0530)</small> Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.	
33 61 13 00-0532	EA	4" Diameter Preinsulated Ductile Iron Elbow With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	1,236.32
33 61 13 00-0533	EA	6" Diameter Preinsulated Ductile Iron Elbow With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	1,650.16
33 61 13 00-0534	EA	8" Diameter Preinsulated Ductile Iron Elbow With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	2,328.22
33 61 13 00-0535	EA	10" Diameter Preinsulated Ductile Iron Elbow With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	3,093.85
33 61 13 00-0536	EA	12" Diameter Preinsulated Ductile Iron Elbow With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	3,971.60
33 61 13 00-0537		Elbows <small>(33 61 13 00-0530)</small> Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.	
33 61 13 00-0538	EA	4" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	1,344.49
33 61 13 00-0539	EA	6" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	1,808.13
33 61 13 00-0540	EA	8" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	2,556.58
33 61 13 00-0541	EA	10" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	3,385.74
33 61 13 00-0542	EA	12" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	4,357.92
33 61 13 00-0543	EA	14" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	5,303.17
33 61 13 00-0544	EA	16" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	6,273.94
33 61 13 00-0545	EA	18" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	7,832.30
33 61 13 00-0546	EA	20" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	9,932.52
33 61 13 00-0547	EA	24" Diameter Preinsulated Ductile Iron Elbow With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	12,845.22
33 61 13 00-0548		Tees <small>(33 61 13 00-0529)</small>	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0549 Tees <small>(33 61 13 00-0548)</small>		
<small>Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.</small>		
33 61 13 00-0550 EA 4" Diameter Preinsulated Ductile Iron Tee With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	1,842.83	
33 61 13 00-0551 EA 6" Diameter Preinsulated Ductile Iron Tee With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	2,458.97	
33 61 13 00-0552 EA 8" Diameter Preinsulated Ductile Iron Tee With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	3,466.51	
33 61 13 00-0553 EA 10" Diameter Preinsulated Ductile Iron Tee With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	4,611.18	
33 61 13 00-0554 EA 12" Diameter Preinsulated Ductile Iron Tee With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	5,915.87	
33 61 13 00-0555 Tees <small>(33 61 13 00-0548)</small>		
<small>Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.</small>		
33 61 13 00-0556 EA 4" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	2,003.47	
33 61 13 00-0557 EA 6" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	2,693.55	
33 61 13 00-0558 EA 8" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	3,805.62	
33 61 13 00-0559 EA 10" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	5,044.63	
33 61 13 00-0560 EA 12" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	6,489.56	
33 61 13 00-0561 EA 14" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	7,756.90	
33 61 13 00-0562 EA 16" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	9,179.71	
33 61 13 00-0563 EA 18" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	11,461.31	
33 61 13 00-0564 EA 20" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	14,541.65	
33 61 13 00-0565 EA 24" Diameter Preinsulated Ductile Iron Tee With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	18,801.05	
33 61 13 00-0566 Reducers <small>(33 61 13 00-0529)</small>		
33 61 13 00-0567 Reducers <small>(33 61 13 00-0566)</small>		
<small>Note: With 1" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.</small>		
33 61 13 00-0568 EA 4" Diameter Preinsulated Ductile Iron Reducer With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	1,058.21	
33 61 13 00-0569 EA 6" Diameter Preinsulated Ductile Iron Reducer With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	1,406.07	
33 61 13 00-0570 EA 8" Diameter Preinsulated Ductile Iron Reducer With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	1,980.99	
33 61 13 00-0571 EA 10" Diameter Preinsulated Ductile Iron Reducer With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	2,638.46	
33 61 13 00-0572 EA 12" Diameter Preinsulated Ductile Iron Reducer With 1" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	3,378.79	
33 61 13 00-0573 Reducers <small>(33 61 13 00-0566)</small>		
<small>Note: With 2" polyurethane insulation and non-metallic fiberglass reinforced polyester (FRP) casing.</small>		
33 61 13 00-0574 EA 4" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	1,147.99	
33 61 13 00-0575 EA 6" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	1,537.18	
33 61 13 00-0576 EA 8" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	2,170.52	
33 61 13 00-0577 EA 10" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	2,880.73	
33 61 13 00-0578 EA 12" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	3,699.45	
33 61 13 00-0579 EA 14" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	4,416.83	
33 61 13 00-0580 EA 16" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	5,220.38	
33 61 13 00-0581 EA 18" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	6,478.43	
33 61 13 00-0582 EA 20" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	8,269.87	
33 61 13 00-0583 EA 24" Diameter Preinsulated Ductile Iron Reducer With 2" Polyurethane Foam Insulation And High Density Polyethylene (HDPE) Jacket.....	10,719.11	
33 61 13 00-0584 Tempered Water Piping Pre-Insulated <small>(33 61 13 00-0052)</small>		
33 61 13 00-0585 Fiberglass Reinforced Polyester (FRP) Carrier And Casing, 1" Polyurethane Insulation <small>(33 61 13 00-0584)</small>		
33 61 13 00-0586 LF 4" Fiberglass Reinforced Polyester (FRP) Carrier And Casing With 1" Polyurethane Insulation	61.69	19.12

33 Utilities**33 60 Hydronic And Steam Energy Utilities****33 61 Hydronic Energy Distribution**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 61 13 00-0587 LF 6" Fiberglass Reinforced Polyester (FRP) Carrier And Casing With 1" Polyurethane Insulation.....	75.38	21.21
33 61 13 00-0588 LF 8" Fiberglass Reinforced Polyester (FRP) Carrier And Casing With 1" Polyurethane Insulation.....	100.63	22.97
33 61 13 00-0589 LF 10" Fiberglass Reinforced Polyester (FRP) Carrier And Casing With 1" Polyurethane Insulation.....	134.93	28.71
33 61 13 00-0590 LF 12" Fiberglass Reinforced Polyester (FRP) Carrier And Casing With 1" Polyurethane Insulation.....	171.94	35.41
33 61 13 00-0591 Fiberglass Reinforced Polyester (FRP) Carrier And Polyvinyl Chloride (PVC) Casing, 1" Polyurethane Insulation (33 61 13 00-0584)		
33 61 13 00-0592 LF 4" Fiberglass Reinforced Polyester (FRP) Carrier And Polyvinyl Chloride (PVC) Casing With 1" Polyurethane Insulation.....	41.36	21.21
33 61 13 00-0593 LF 6" Fiberglass Reinforced Polyester (FRP) Carrier And Polyvinyl Chloride (PVC) Casing With 1" Polyurethane Insulation.....	44.49	21.21
33 61 13 00-0594 LF 8" Fiberglass Reinforced Polyester (FRP) Carrier And Polyvinyl Chloride (PVC) Casing With 1" Polyurethane Insulation.....	47.40	21.21
33 61 13 00-0595 LF 10" Fiberglass Reinforced Polyester (FRP) Carrier And Polyvinyl Chloride (PVC) Casing With 1" Polyurethane Insulation.....	56.97	25.07
33 61 13 00-0596 LF 12" Fiberglass Reinforced Polyester (FRP) Carrier And Polyvinyl Chloride (PVC) Casing With 1" Polyurethane Insulation.....	69.55	31.82
33 61 13 00-0597 Polyvinyl Chloride (PVC) Carrier And Casing, 1" Polyurethane Insulation (33 61 13 00-0584)		
33 61 13 00-0598 LF 4" Polyvinyl Chloride (PVC) Carrier And Casing With 1" Polyurethane Insulation.....	41.36	21.21
33 61 13 00-0599 LF 6" Polyvinyl Chloride (PVC) Carrier And Casing With 1" Polyurethane Insulation.....	44.49	21.21
33 61 13 00-0600 LF 8" Polyvinyl Chloride (PVC) Carrier And Casing With 1" Polyurethane Insulation.....	47.40	21.21
33 61 13 00-0601 LF 10" Polyvinyl Chloride (PVC) Carrier And Casing With 1" Polyurethane Insulation.....	56.97	25.07
33 61 13 00-0602 LF 12" Polyvinyl Chloride (PVC) Carrier And Casing With 1" Polyurethane Insulation.....	69.55	31.82
33 70 Electrical Utilities (33)		
33 71 Electrical Utility Transmission And Distribution (33 70)		
33 71 19 Electrical Underground Ducts, Ductbanks And Manholes (33 71)		
Note: Excludes excavation and backfill. See CSI section 31 23 16 00-0000 for excavation, 31 23 16 36-0016 for backfill.		
33 71 19 13 Electrical Manholes and Handholes (33 71 19)		
33 71 19 13-0001 Electrical Handholes And Pull Boxes (33 71 19 13)		
33 71 19 13-0002 Electrical Pull Boxes (33 71 19 13-0001)		
See CSI section 33 05 63 00-0427 for handholes.		
33 71 19 13-0003 EA 24" x 36" x 24", Electric Pull Boxes, Precast Concrete.....	1,419.13	
33 71 19 13-0004 EA 24" x 36" x 36", Electric Pull Boxes, Precast Concrete.....	1,682.22	
33 71 19 13-0005 EA 30" x 48" x 36", Electric Pull Boxes, Precast Concrete.....	1,932.15	
33 71 19 13-0006 EA 36" x 72" x 24", Electric Pull Boxes, Precast Concrete.....	2,920.60	
33 71 19 13-0007 EA 36" x 60" x 36", Electric Pull Boxes, Precast Concrete.....	3,096.45	
33 71 19 13-0008 EA 48" x 48" x 36", Electric Pull Boxes, Precast Concrete.....	3,320.67	
33 71 19 13-0009 EA 48" x 60" x 48", Electric Pull Boxes, Precast Concrete.....	3,813.87	
33 71 19 13-0010 Electrical Pull Boxes (CALTRANS) (33 71 19 13-0001)		
33 71 19 13-0011 EA Body, CALTRANS 3-1/2 Precast Concrete Pull Box.....	105.76	
33 71 19 13-0012 EA Concrete Cover, CALTRANS 3-1/2 Precast Concrete Pull Box.....	37.21	
33 71 19 13-0013 EA Bolt Down Concrete Cover, CALTRANS 3-1/2 Precast Concrete Pull Box.....	59.50	
33 71 19 13-0014 EA Bolt Down Cast Iron Cover, CALTRANS 3-1/2 Precast Concrete Pull Box.....	114.72	
33 71 19 13-0015 EA Bolt Down Steel Cover, CALTRANS 3-1/2 Precast Concrete Pull Box.....	171.97	
For Galvanized Steel Cover, Add	27.72	
33 71 19 13-0016 EA 12" Extension, CALTRANS 3-1/2 Precast Concrete Pull Box.....	50.70	
33 71 19 13-0017 EA Flat Plate Base, CALTRANS 3-1/2 Precast Concrete Pull Box.....	50.70	
33 71 19 13-0018 EA Body, CALTRANS 5 Precast Concrete Pull Box.....	153.05	
33 71 19 13-0019 EA Concrete Cover, CALTRANS 5 Precast Concrete Pull Box.....	48.05	
33 71 19 13-0020 EA Bolt Down Concrete Cover, CALTRANS 5 Precast Concrete Pull Box.....	70.34	
33 71 19 13-0021 EA Bolt Down Steel Cover, CALTRANS 5 Precast Concrete Pull Box.....	224.81	
For Galvanized Steel Cover, Add	50.81	
33 71 19 13-0022 EA 12" Extension, CALTRANS 5 Precast Concrete Pull Box.....	67.63	
33 71 19 13-0023 EA Flat Plate Base, CALTRANS 5 Precast Concrete Pull Box.....	63.91	
33 71 19 13-0024 EA Body, CALTRANS 6 Precast Concrete Pull Box.....	163.89	
33 71 19 13-0025 EA Concrete Cover, CALTRANS 6 Precast Concrete Pull Box.....	62.62	
33 71 19 13-0026 EA Bolt Down Concrete Cover, CALTRANS 6 Precast Concrete Pull Box.....	84.91	
33 71 19 13-0027 EA Bolt Down Steel Cover, CALTRANS 6 Precast Concrete Pull Box.....	304.76	
For Galvanized Steel Cover, Add	71.14	
33 71 19 13-0028 EA 12" Extension, CALTRANS 6 Precast Concrete Pull Box.....	78.47	
33 71 19 13-0029 EA Flat Plate Base, CALTRANS 6 Precast Concrete Pull Box.....	74.41	
33 71 19 13-0030 EA 6" Return Flat Plate Base, CALTRANS 6 Precast Concrete Pull Box.....	98.80	
33 71 19 13-0031 EA Body, CALTRANS 3-1/2-T Precast Concrete Pull Box.....	205.01	
33 71 19 13-0032 EA Bolt Down Concrete Cover, CALTRANS 3-1/2-T Precast Concrete Pull Box.....	268.17	
33 71 19 13-0033 EA 12" Extension, CALTRANS 3-1/2-T Precast Concrete Pull Box.....	92.02	
33 71 19 13-0034 EA Flat Plate Base, CALTRANS 3-1/2-T Precast Concrete Pull Box.....	85.25	
33 71 19 13-0035 EA Body, CALTRANS 5-T Precast Concrete Pull Box.....	272.29	
33 71 19 13-0036 EA Bolt Down Concrete Cover, CALTRANS 5-T Precast Concrete Pull Box.....	383.34	
33 71 19 13-0037 EA 12" Extension, CALTRANS 5-T Precast Concrete Pull Box.....	108.28	



Utilities	33	33
Electrical Utilities	33 70	
Electrical Utility Transmission And Distribution	33 71	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
33 71 19 13-0038 EA Flat Plate Base, CALTRANS 5-T Precast Concrete Pull Box.....	105.57	
33 71 19 13-0039 EA Body, CALTRANS 6-T Precast Concrete Pull Box.....	371.21	
33 71 19 13-0040 EA Bolt Down Concrete Cover, CALTRANS 6-T Precast Concrete Pull Box.....	532.39	
33 71 19 13-0041 EA 12" Extension, CALTRANS 6-T Precast Concrete Pull Box.....	176.03	
33 71 19 13-0042 EA Flat Plate Base, CALTRANS 6-T Precast Concrete Pull Box.....	139.45	
33 71 19 13-0043 Electrical Property Line Boxes (33 71 19 13)		
33 71 19 13-0044 EA 3'-6" x 2'-9" x 2' Deep Property Line Box	2,585.16	326.81
33 71 19 13-0045 EA 4'-6" x 3'-6" x 4' Deep Property Line Box	3,003.85	338.92
33 71 19 13-0046 EA 6' x 4' x 5' Deep Property Line Box	3,325.94	411.54
33 71 19 13-0047 EA 11'-6" x 4'-6" x 6' Deep Property Line Box	5,073.52	605.21
33 71 19 13-0048 Manhole Accessories (33 71 19 13)		
33 71 19 13-0049 EA 6" Precast Grade Ring Riser Casting.....	338.95	
33 71 19 13-0050 EA 12" Precast Grade Ring Riser Casting.....	367.05	
33 71 19 13-0051 EA 36" Opening Cast Iron Frame And Cover (NEENAH #R-1640-D).....	1,556.15	
33 71 19 13-0052 EA 42" Opening Cast Iron Frame And Cover (NEENAH #R-1740-E1).....	2,032.26	
33 71 19 13-0053 EA Cast Iron Adjusting Ring (NEENAH #R-1979).....	649.95	
33 71 19 13-0054 EA Cast Iron Frame And Cover (NEENAH #R-1640-B).....	829.30	
33 71 19 23 Trenched Electrical Underground Duct and Ductbanks (33 71 19)		
33 71 19 23-0001 Underground Electrical Concrete Markers (33 71 19 23)		
33 71 19 23-0002 EA 36" x 6" x 6", Underground Electric Concrete Marker	238.29	

END OF SECTION 33

NOT FOR BIDDING

33	33	Utilities
	33 70	Electrical Utilities
	33 71	Electrical Utility Transmission And Distribution



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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34 Transportation

34 40 Transportation Signaling and Control Equipment ⁽³⁴⁾

34 41 Roadway Signaling and Control Equipment ^(34 40)

34 41 13 Traffic Signals ^(34 41)

34 41 13 00-0001 Traffic Signals ^(34 41 13)

34 41 13 00-0002	EA	Single Traffic Signal Head, 4 Way Pattern.....	4,825.87	530.18
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34 41 13 00-0003 Traffic Detector Induction Loop ^(34 41 13)

34 41 13 00-0004	EA	6' x 6', Type A, 3 Turns Per Loop, Traffic Detector Induction Loop..... Note: Includes saw cutting, 3 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.	337.79	
34 41 13 00-0005	EA	6' x 6', Type D, 3 Turns Per Loop, Traffic Detector Induction Loop..... Note: Includes saw cutting, 3 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.	421.49	
34 41 13 00-0006	EA	6' x 6', Type D, 5 Turns Per Loop, Traffic Detector Induction Loop..... Note: Includes saw cutting, 5 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.	467.19	
34 41 13 00-0007	EA	6' x 6', Type Q, 3 Turns Per Loop, Traffic Detector Induction Loop..... Note: Includes saw cutting, 3 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.	413.37	
34 41 13 00-0008	EA	6' x 20', Type C, 3 Turns Per Loop, Traffic Detector Induction Loop..... Note: Includes saw cutting, 3 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.	717.21	
34 41 13 00-0009	EA	6' x 28', Type C, 2 Turns Per Loop, Traffic Detector Induction Loop..... Note: Includes saw cutting, 2 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.	890.67	
34 41 13 00-0010	EA	6' x 28', Type C, 3 Turns Per Loop, Traffic Detector Induction Loop..... Note: Includes saw cutting, 3 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.	937.98	
34 41 13 00-0011	EA	6' x 40', Type C, 1 Turn Per Loop, Traffic Detector Induction Loop..... Note: Includes saw cutting, 1 turn wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.	1,195.96	
34 41 13 00-0012	EA	6' x 40', Type C, 2 Turns Per Loop, Traffic Detector Induction Loop..... Note: Includes saw cutting, 2 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.	1,265.44	
34 41 13 00-0013	EA	6' x 50', Type C, 1 Turn Per Loop, Traffic Detector Induction Loop..... Note: Includes saw cutting, 1 turn wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.	1,376.53	
34 41 13 00-0014	EA	6' x 50', Type C, 2 Turns Per Loop, Traffic Detector Induction Loop..... Note: Includes saw cutting, 2 turns wire for 1 induction loop circuit, sealing and splicing into leads in street. Excludes lead wire, controller, junction box or conduit.	1,461.39	
34 41 13 00-0015	LF	In Pavement, Lead Wire For Traffic Signal Detector..... Note: Includes saw cutting, sealing and splicing into traffic signal loop wire in street. Excludes junction box or conduit.	6.26	
34 41 13 00-0016	LF	In Earthwork, Lead Wire For Traffic Signal Detector..... Note: Includes trenching in earthwork and splicing into traffic signal loop wire. Excludes junction box or conduit.	2.63	
34 41 13 00-0017	EA	2 Channel, Rack Mounted, Traffic Loop Vehicle Detector (Reno A&E Model 222).....	164.33	
34 41 13 00-0018	EA	4 Channel, Rack Mounted, Traffic Loop Vehicle Detector (Reno A&E Model E-1100).....	460.29	
34 41 13 00-0019	EA	2 Channel, Rack Mounted, Traffic Loop Bicycle Detector (Reno A&E Model C-1100).....	286.64	

34 41 13 00-0020 Overhead Traffic Signals ^(34 41 13)

34 41 13 00-0021	EA	Vehicle Signal Face, LED, 1 - 12" Section.....	357.32	112.66
34 41 13 00-0022	EA	Vehicle Signal Face, LED, 2 - 12" Sections.....	578.16	159.05
34 41 13 00-0023	EA	Vehicle Signal Face, LED, 3 - 12" Sections.....	806.98	194.40
34 41 13 00-0024	EA	Vehicle Signal Face, LED, 3 - 12" Sections, Middle Section Blank.....	767.77	194.40
34 41 13 00-0025	EA	Vehicle Signal Face, LED, 4 - 12" Sections.....	1,021.04	216.49
34 41 13 00-0026	EA	Vehicle Signal Face, LED, 5 - 12" Sections.....	1,217.43	229.74
34 41 13 00-0027	EA	Vehicle Signal Face, LED, 5 - 12" Sections, Cluster.....	1,293.23	229.74
34 41 13 00-0028	EA	Vehicle Signal Face, LED, 1 - 8" Section.....	337.71	112.66
34 41 13 00-0029	EA	Vehicle Signal Face, LED, 2 - 8" Sections.....	538.96	159.05
34 41 13 00-0030	EA	Vehicle Signal Face, LED, 3 - 8" Sections.....	711.58	194.40
34 41 13 00-0031	EA	Vehicle Signal Face, LED, 2 - 8" Sections, 1 - 12" Section.....	759.93	194.40
34 41 13 00-0032	EA	Vehicle Signal Face, LED, 2 - 8" Sections, 2 - 12" Sections.....	937.40	216.49
34 41 13 00-0033	EA	Vehicle Signal Face, LED, 3 - 8" Sections, 1 - 12" Section.....	909.96	216.49
34 41 13 00-0034	EA	Vehicle Signal Face, LED, 3 - 8" Sections, 2 - 12" Sections.....	1,073.69	229.74
34 41 13 00-0035	EA	Vehicle Signal Face, LED, 3 - 8" Sections, 2 - 12" Sections In Cluster.....	1,135.11	229.74
34 41 13 00-0036	EA	Vehicle Signal Face, LED, 3 - 12" Sections, Optically Programmed.....	1,617.19	194.40
34 41 13 00-0037	EA	Vehicle Signal Face, LED, 4 - 12" Sections, Optically Programmed.....	2,109.60	216.49
34 41 13 00-0038	EA	Vehicle Signal Face, LED, 5 - 12" Sections, Optically Programmed.....	2,746.39	229.74
34 41 13 00-0039	EA	Vehicle Signal Face, LED, 5 - 12" Sections In Cluster, Optically Programmed.....	2,975.08	229.74
34 41 13 00-0040	EA	Bracket Signal Mounting Assembly.....	341.38	88.36
34 41 13 00-0041	EA	Mast Arm Signal Mounting Assembly.....	606.98	176.72
34 41 13 00-0042	EA	Top Pole Signal Mounting Assembly.....	213.57	66.27
34 41 13 00-0043	EA	Pedestrian Signal Head.....	617.92	132.55

34 Transportation**34 40 Transportation Signaling and Control Equipment****34 41 Roadway Signaling and Control Equipment**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

34 41 13 00-0044	EA	Pedestrian Signal Insert.....	379.54	66.27
34 41 13 00-0045	EA	Audible Pedestrian Signal.....	882.98	
34 41 13 00-0046	EA	Junction Box, Pole Or Post Mounted.....	361.51	
34 41 13 00-0047	EA	Pedestrian Push Button.....	325.92	
34 41 13 00-0048	EA	Illuminated Sign, Bracket Mounted, Symbolic.....	2,615.60	
34 41 13 00-0049	EA	Illuminated Sign, Mast Arm Mounted, Symbolic.....	2,730.03	
34 41 13 00-0050	EA	Sign, Message, "BLANK OUT", Bracket Mounted.....	2,879.60	
34 41 13 00-0051	EA	Sign, Message, "BLANK OUT", Mast Arm Mounted.....	3,061.71	
34 41 13 00-0052	EA	Sign, Fiber Optic, Bracket Mounted.....	3,280.02	
34 41 13 00-0053	EA	Sign, Fiber Optic, Mast Arm Mounted.....	3,465.95	
34 41 13 00-0054	EA	16" Pedestal With Base Plate And Cover.....	1,051.71	120.58
34 41 13 00-0055	EA	30' Type 15TS Signal And Lighting Standard.....	4,949.13	
		Note: 8" diameter base and 3-7/8" diameter top. 0.1793" wall thickness.		
34 41 13 00-0056	EA	35' Type 21TS Signal And Lighting Standard.....	5,754.49	
		Note: 9-3/8" diameter base and 3-9/16" diameter top. 0.1793" wall thickness.		
34 41 13 00-0057	EA	17' Type 18-2-100 Signal And Lighting Standard.....	2,775.73	
		Note: 10-3/4" diameter base and 8-7/16" diameter top. 0.1793" wall thickness.		
34 41 13 00-0058	EA	17' Type 18-3-100 Signal And Lighting Standard.....	3,086.68	
		Note: 10-3/4" diameter base and 8-7/16" diameter top. 0.2391" wall thickness.		
34 41 13 00-0059	EA	17' Type 18-4-100 Or 23-4-100 Signal And Lighting Standard.....	3,205.88	
		Note: 12" diameter base and 9" diameter top. 0.2391" wall thickness.		
34 41 13 00-0060	EA	17' Type 23-3-100 Signal And Lighting Standard.....	3,205.88	
		Note: 12" diameter base and 9-5/8" diameter top. 0.2391" wall thickness.		
34 41 13 00-0061	EA	17' Type 23-4-100 Signal And Lighting Standard.....	3,268.46	
		Note: 12" diameter base and 9-5/8" diameter top. 0.2391" wall thickness.		
34 41 13 00-0062	EA	17' Type 27-3-100 Signal And Lighting Standard.....	3,581.36	
		Note: 12-1/8" diameter base and 9-3/4" diameter top. 0.3125" wall thickness.		
34 41 13 00-0063	EA	17' Type 27-4-100 Signal And Lighting Standard.....	3,653.31	
		Note: 13-1/2" diameter base and 9-3/4" diameter top. 0.3125" wall thickness.		
34 41 13 00-0064	EA	17' Type 28-5-100 Signal And Lighting Standard.....	3,800.85	
		Note: 14" diameter base and 11-11/16" diameter top. 0.3125" wall thickness.		
34 41 13 00-0065	EA	17' Type 60-5-100 Signal And Lighting Standard.....	4,033.21	
		Note: 16" diameter base and 13-11/16" diameter top. 0.3125" wall thickness.		
34 41 13 00-0066	EA	18'-6" Type 16-2-100 Or 16-3-100 Signal And Lighting Standard.....	2,958.65	
		Note: 10-3/4" diameter base and 8-1/4" diameter top. 0.1793" wall thickness.		
34 41 13 00-0067	EA	30' Type 17-2-100 Or 17-3-100 Signal And Lighting Standard.....	5,275.63	
		Note: 10-3/4" diameter base and 6-5/8" diameter top. 0.1793" wall thickness.		
34 41 13 00-0068	EA	30' Type 19-2-100 Signal And Lighting Standard.....	5,928.63	
		Note: 10-3/4" diameter base and 6-5/8" diameter top. 0.2391" wall thickness.		
34 41 13 00-0069	EA	30' Type 19-3-100 Or 24-3-100 Signal And Lighting Standard.....	6,178.94	
		Note: 12" diameter base and 7-7/8" diameter top. 0.2391" wall thickness.		
34 41 13 00-0070	EA	30' Type 19-4-100 Or 24-4-100 Signal And Lighting Standard.....	6,178.94	
		Note: 12" diameter base and 8" diameter top. 0.2391" wall thickness.		
34 41 13 00-0071	EA	30' Type 26-3-100 Signal And Lighting Standard.....	6,967.43	
		Note: 12-1/8" diameter base and 8" diameter top. 0.3125" wall thickness.		
34 41 13 00-0072	EA	30' Type 26-4-100 Signal And Lighting Standard.....	7,269.69	
		Note: 13-1/2" diameter base and 8" diameter top. 0.3125" wall thickness.		
34 41 13 00-0073	EA	30' Type 29-5-100 Signal And Lighting Standard.....	7,587.05	
		Note: 14" diameter base and 9-7/8" diameter top. 0.3125" wall thickness.		
34 41 13 00-0074	EA	30' Type 61-5-100 Signal And Lighting Standard.....	8,086.91	
		Note: 16" diameter base and 11-7/8" diameter top. 0.3125" wall thickness.		
34 41 13 00-0075	EA	35' Type 17A-2-100 Signal And Lighting Standard.....	6,132.95	
		Note: 10-3/4" diameter base and 5-15/16" diameter top. 0.1793" wall thickness.		
34 41 13 00-0076	EA	35' Type 19A-2-100 Signal And Lighting Standard.....	6,894.78	
		Note: 10-3/4" diameter base and 5-15/16" diameter top. 0.2391" wall thickness.		
34 41 13 00-0077	EA	35' Type 19A-3-100 Or 24A-3-100 Signal And Lighting Standard.....	7,186.82	
		Note: 12" diameter base and 7-3/16" diameter top. 0.2391" wall thickness.		
34 41 13 00-0078	EA	35' Type 19A-4-100 Or 24A-4-100 Signal And Lighting Standard.....	7,186.82	
		Note: 12" diameter base and 7-5/16" diameter top. 0.2391" wall thickness.		
34 41 13 00-0079	EA	35' Type 26A-3-100 Signal And Lighting Standard.....	8,106.72	
		Note: 12-1/8" diameter base and 7-5/16" diameter top. 0.3125" wall thickness.		
34 41 13 00-0080	EA	35' Type 26A-4-100 Signal And Lighting Standard.....	8,459.35	
		Note: 13-1/2" diameter base and 7-5/16" diameter top. 0.3125" wall thickness.		
34 41 13 00-0081	EA	35' Type 29A-5-100 Signal And Lighting Standard.....	8,829.61	
		Note: 14" diameter base and 9-3/16" diameter top. 0.3125" wall thickness.		
34 41 13 00-0082	EA	35' Type 61A-5-100 Signal And Lighting Standard.....	9,412.77	
		Note: 16" diameter base and 11" diameter top. 0.3125" wall thickness.		
34 41 13 00-0083	EA	15' Steel Straight Mast Arm, MONOTUBE.....	2,001.37	
34 41 13 00-0084	EA	20' Steel Straight Mast Arm, MONOTUBE.....	2,101.26	
34 41 13 00-0085	EA	25' Steel Straight Mast Arm, MONOTUBE.....	2,250.94	
34 41 13 00-0086	EA	30' Steel Straight Mast Arm, MONOTUBE.....	3,047.60	
34 41 13 00-0087	EA	35' Steel Straight Mast Arm, MONOTUBE.....	3,673.38	
34 41 13 00-0088	EA	40' Steel Straight Mast Arm, MONOTUBE.....	3,944.83	
34 41 13 00-0089	EA	45' Steel Straight Mast Arm, MONOTUBE.....	4,336.05	
34 41 13 00-0090	EA	4' Steel Curved Luminaire Mast Arm.....	683.67	
34 41 13 00-0091	EA	6' Steel Curved Luminaire Mast Arm.....	889.38	
		For High Rise Arm, Add	77.74	
34 41 13 00-0092	EA	8' Steel Curved Luminaire Mast Arm.....	1,112.76	
34 41 13 00-0093	EA	10' Steel Curved Luminaire Mast Arm.....	1,520.43	
		For High Rise Arm, Add	114.43	
34 41 13 00-0094	EA	12' Steel Curved Luminaire Mast Arm.....	1,681.69	
		For High Rise Arm, Add	134.95	
34 41 13 00-0095	EA	15' Steel Curved Luminaire Mast Arm.....	1,760.90	
		For High Rise Arm, Add	150.50	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 41 13 00-0096 EA 15' Tubular Aluminum Post.....	721.44	
34 41 13 00-0097 EA 17' Tubular Aluminum Post.....	767.89	
34 41 13 00-0098 EA 20' Tubular Aluminum Post.....	853.30	
34 41 13 00-0099 EA CUT-OFF POLE AND CAPPED.....	123.29	
34 41 13 00-0100 EA PAINT EXISTING SL/TS CONTROLLER COMPLETE.....	36.99	
34 41 13 00-0101 EA PAINT EXISTING TS POST COMPLETE.....	174.72	
34 41 13 00-0102 EA 1 Channel Loop Detector Amplifier.....	1,108.91	
34 41 13 00-0103 EA 4 Channel Loop Detector Amplifier.....	2,098.83	
34 41 13 00-0104 EA FLASHING BEACON WITH DOWNLIGHT.....	1,554.02	
34 41 13 00-0105 EA Flashing Beacon, Bracket Mounted.....	523.07	
34 41 13 00-0106 EA Flashing Beacon, Mast Arm Mounted.....	523.07	
34 41 13 00-0107 EA Flashing Beacon, Solar Powered, Bracket Mounted.....	13,907.62	
34 41 13 00-0108 EA Wireless Access Point (Proxim Tsunami MP11 954-BSUR-US).....	2,390.13	
34 41 13 00-0109 EA Ruggedized Subscriber Unit (Proxim Tsunami MP11 954-SUA-US).....	1,287.07	
34 41 13 00-0110 EA Smart Sensor HD (Wavetronix HD125).....	6,817.61	
34 41 13 00-0111 EA Access Point (Sensys AP240-ES).....	3,156.63	
Note: RJ45 port supports simultaneous Ethernet and CC card communications (split via Access Box) combined with data relay, statistics-processing and VPN functionality.		
34 41 13 00-0112 EA Sensys Access Point AP240-ESC-VER - RJ45 port supports simultaneous Ethernet and CC card communications (split via Access Box) combined with data relay, statistics-processing and VPN functionality with Integrated 1xRTT cellular data modem for data relay via CDMA.....	5,456.28	
34 41 13 00-0113 EA Mounting Kit for Access Points and Repeaters (KIT-MTG).....	197.27	
34 41 13 00-0114 EA Repeater (Sensys RP240-B-LL).....	1,446.51	
Note: Nominal battery capacity of 171 Ah with seven (7) year battery-life.		
34 41 13 00-0115 EA Wireless Flush Mounted Sensor (Sensys VSN240-F).....	652.96	
Note: Excludes coring.		
34 41 13 00-0116 EA Sensor Mounting Bracket, Cable, Lightning Surge Protector, Power Supply, Breaker, AC Surge Protector, Din Rail and Power Plug.....	1,635.45	
34 41 13 00-0117 EA Pole Base Foundation for 17-2-80, 17-2-100, 19-2-80 Poles.....	4,814.70	1.15
34 41 13 00-0118 EA Pole Base Foundation for 17-3-80, 19-3-80, 26-3-80 & 26-4-80 Poles.....	6,263.07	1.15
34 41 13 00-0119 EA Pole Base Foundation for Type 15 and 21 Poles.....	3,781.28	1.15
34 41 13 00-0120 EA Pole Base Foundation for 18-4-100, 19-4-100, 23-4-100, And 24-4-100 Poles.....	4,814.70	1.15
34 41 13 00-0121 EA Pole Base Foundation for 26-4-100 And 27-4-100 Poles.....	6,263.07	1.15
34 41 13 00-0122 EA LED Enhanced Pedestrian Crossing Symbol Sign.....	1,159.53	72.20
Note: 2 required per system.		
34 41 13 00-0123 EA 42" Height, 8-1/2" Diameter Automatic Bollard Activation System.....	3,361.45	433.22
Note: 4 required per system.		
34 41 13 00-0124 EA Power Control Unit With Enclosure (Solar).....	11,637.43	288.81
Note: LightGuard Systems solar power equipment Includes: one solar array consisting of 1 Siemens SP70 solar power module (21" x 47" to be pole mounted, pole not included), #14 AWG solar tray cable, mounting hardware, one enclosure (16-1/2" width x 27-1/2" height x 15" depth), two 12V 80AH deep cycle gel cell batteries and a solar power control unit (PCU).		
34 41 13 00-0125 EA Power Control Unit With Enclosure (A/C).....	7,479.22	288.81
34 41 13 00-0126 EA Push Button Assembly With Sign.....	677.03	144.41
34 41 13 00-0127 EA Advanced Warning Signs.....	1,315.42	144.41
34 41 13 00-0128 EA Traffic Signal Controller Unit, TS 2 Type 1 (ASC/3-1000).....	3,804.64	
34 41 13 00-0129 EA Traffic Signal Controller Unit, TS 2 Type 2 (ASC/3-2100).....	3,915.72	
34 41 13 00-0130 EA Traffic Signal Controller Unit, TS 2 Type 2 Econolite Model ASC/2S-2100.....	34,253.08	
34 41 13 00-0131 EA Optical Detector For Mast Arm Mounting, 1 Channel, 1 Way.....	714.19	
34 41 13 00-0132 EA Optical Detector For Mast Arm Mounting, 1 Channel, 2 Way.....	779.53	
34 41 13 00-0133 EA Optical Detector For Mast Arm Mounting, 2 Channel.....	993.85	
34 41 13 00-0134 EA 2 Channel Phase Selector.....	2,228.42	
34 41 13 00-0135 EA 4 Channel Phase Selector.....	3,463.35	
34 41 13 00-0136 EA Malfunction Management Unit For Use With NEMA Controller.....	1,124.51	
34 41 13 00-0137 EA Optical Detector For Pole-Side Mounting, 1 Channel, 1 Way.....	714.19	158.13
34 41 13 00-0138 EA Optical Detector For Pole-Side Mounting, 1 Channel, 2 Way.....	779.53	158.13
34 41 13 00-0139 EA Optical Detector For Pole-Side Mounting, 2 Channel.....	993.85	158.13
34 41 13 00-0140 EA Optical Detector For Pedestal Or Pipe Mounting, 1 Channel, 1 Way.....	714.19	158.13
34 41 13 00-0141 EA Optical Detector For Pedestal Or Pipe Mounting, 1 Channel, 2 Way.....	779.53	158.13
34 41 13 00-0142 EA Optical Detector For Pedestal Or Pipe Mounting, 2 Channel.....	993.85	158.13
34 41 13 00-0143 EA Optical Detector For Span Wire Mounting, 1 Channel, 1 Way.....	714.19	158.13
34 41 13 00-0144 EA Optical Detector For Span Wire Mounting, 1 Channel, 2 Way.....	779.53	158.13
34 41 13 00-0145 EA Optical Detector For Span Wire Mounting, 2 Channel.....	993.85	158.13
34 41 13 00-0146 EA Optical Detector For Signal Top Mounting, 1 Channel, 1 Way.....	714.19	158.13
34 41 13 00-0147 EA Optical Detector For Signal Top Mounting, 1 Channel, 2 Way.....	779.53	158.13
34 41 13 00-0148 EA Optical Detector For Signal Top Mounting, 2 Channel.....	993.85	158.13
34 41 13 00-0149 EA Time Switch, 1-Circuit.....	278.67	
34 41 13 00-0150 EA Digital Loop-Type Vehicle Detector Card, 2-Channel, Normal.....	226.24	
34 41 13 00-0151 EA Digital Loop-Type Vehicle Detector Card, 2-Channel, Stretch/Delay.....	295.50	
34 41 13 00-0152 EA Digital Loop-Type Vehicle Detector Card, 4-Channel, Normal.....	419.65	
34 41 13 00-0153 EA Digital Loop-Type Vehicle Detector Card, 4-Channel, Stretch/Delay.....	526.81	
34 41 13 00-0154 EA Digital Loop-Type Vehicle Detector Card Rack With Power Supply.....	1,428.50	
34 41 13 00-0155 EA Digital Loop-Type Vehicle Detector Card Rack With Power Supply For Remote Detector Cabinet.....	1,428.50	
34 41 13 00-0156 EA Power Line Surge Protector - Edco SHP 300-10.....	132.60	
34 41 13 00-0157 EA Loop Detector Surge Protector - Edco SRA-6LC.....	67.86	
34 41 13 00-0158 EA Controller Cabinet; Econolite Type "O".....	19,732.34	
34 41 13 00-0159 EA Controller Cabinet With 1 Detector Rack And 1 Load Switch Bay.....	8,654.59	
34 41 13 00-0160 EA Controller Cabinet With 1 Detector Rack And 2 Load Switch Bays.....	9,399.47	
34 41 13 00-0161 EA Controller Cabinet With 2 Detector Racks And 1 Load Switch Bay.....	10,294.63	
34 41 13 00-0162 EA Controller Cabinet With 2 Detector Racks And 2 Load Switch Bays.....	10,569.06	
34 41 13 00-0163 EA Speed Limit Beacon Control Cabinet.....	4,327.36	
34 41 13 00-0164 EA Remote Detector Cabinet.....	2,301.82	

34 Transportation**34 40 Transportation Signaling and Control Equipment****34 41 Roadway Signaling and Control Equipment**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

34 41 13 00-0165	EA	Traffic Signal Hand Control	634.10	
34 41 13 00-0166	EA	Extra Pedestrian Detector Isolation Assembly	503.42	
34 41 13 00-0167	EA	Fiber Optic Transceivers-Repeater Module	744.97	
34 41 13 00-0168	EA	Field Transceiver-Repeater	358.84	
34 41 13 00-0169	EA	Load Switch	62.83	
34 41 13 00-0170	EA	30" Pedestal With Base Plate And Cover	550.37	
34 41 13 00-0171	EA	8" Pedestal With Base Plate And Cover	805.82	
34 41 13 00-0172	EA	11" Pedestal With Base Plate And Cover	896.51	
34 41 13 00-0173	EA	15" Pedestal With Base Plate And Cover	997.26	
34 41 13 00-0174	LF	6-Fiber Interconnect Cable, Fiber Optic, Single Mode	0.97	
34 41 13 00-0175	LF	12-Fiber Interconnect Cable, Fiber Optic, Single Mode	1.04	
34 41 13 00-0176	LF	24-Fiber Interconnect Cable, Fiber Optic, Single Mode	1.22	
34 41 13 00-0177	LF	36-Fiber Interconnect Cable, Fiber Optic, Single Mode	1.39	
34 41 13 00-0178	LF	48-Fiber Interconnect Cable, Fiber Optic, Single Mode	1.56	
34 41 13 00-0179	LF	72-Fiber Interconnect Cable, Fiber Optic, Single Mode	1.85	
34 41 13 00-0180	LF	96-Fiber Interconnect Cable, Fiber Optic, Single Mode	2.12	
34 41 13 00-0181	LF	144-Fiber Interconnect Cable, Fiber Optic, Single Mode	2.64	
34 41 13 00-0182	LF	3/16" Diameter Messenger Cable	0.49	0.09
34 41 13 00-0183	LF	1/4" Diameter Messenger Cable	0.57	0.09
34 41 13 00-0184	LF	3/8" Diameter Messenger Cable	1.04	0.09
34 41 13 00-0185	LF	1/2" Diameter Messenger Cable	2.14	0.18
34 41 13 00-0186	EA	4' Diameter x 10' Concrete Base For Poles	2,021.41	
		Note: Includes drilling in earth, rebar, bolts, forms for exposed base, bolts and concrete.		
34 41 13 00-0187	EA	4' Diameter x 16' Concrete Base For Poles	3,218.83	
		Note: Includes drilling in earth, rebar, bolts, forms for exposed base, bolts and concrete.		
34 41 13 00-0188	EA	Internally Illuminated Street Name Sign, 1 Line, 4'	1,712.53	176.72
34 41 13 00-0189	EA	Internally Illuminated Street Name Sign, 1 Line, 6'	2,114.52	220.91
34 41 13 00-0190	EA	Internally Illuminated Street Name Sign, 1 Line, 8'	2,307.43	265.08
34 41 13 00-0191	EA	Internally Illuminated Street Name Sign, 1 Line, 10'	2,604.88	309.27
34 41 13 00-0192	EA	Internally Illuminated Street Name Sign, 1 Line, 12'	2,797.78	353.46
34 41 13 00-0193	EA	Internally Illuminated Street Name Sign, 2 Line, 4'	2,700.47	176.72
34 41 13 00-0194	EA	Internally Illuminated Street Name Sign, 2 Line, 6'	3,327.23	220.91
34 41 13 00-0195	EA	Internally Illuminated Street Name Sign, 2 Line, 8'	3,593.32	265.08
34 41 13 00-0196	EA	Internally Illuminated Street Name Sign, 2 Line, 10'	4,016.22	309.27
34 41 13 00-0197	EA	Internally Illuminated Street Name Sign, 2 Line, 12'	4,313.67	353.46
34 41 13 00-0198	EA	Photoelectric Controller, Multi-Volt	60.72	20.56
34 41 13 00-0199	EA	Photoelectric Controller, 120 Volt	74.34	20.56
34 41 13 00-0200	EA	Photoelectric Controller, 480 Volt	74.34	20.56
34 41 13 00-0201	EA	Wi-Fi Communication Unit	894.15	88.36
34 41 13 00-0202	EA	Wi-Fi Communication Unit Mounting Bracket	197.89	66.27
34 41 13 00-0203	EA	Wi-Fi Communication Unit Power Supply / POE Injector	178.53	44.19
34 41 13 00-0204	EA	Wi-Fi Communication Unit Packet	1,535.66	132.55
34 41 13 00-0205	LF	Preemptor Detector Cable	1.68	
34 41 13 00-0206	EA	Sno-Shoe Cable Storage Assembly	164.41	

34 41 13 00-0207 Traffic Signal Cable (34 41 13)

34 41 13 00-0208	LF	16 AWG, 2-Conductor, Solid, Traffic Signal Cable	1.39	0.61
34 41 13 00-0209	LF	16 AWG, 3-Conductor, Solid, Traffic Signal Cable	1.54	0.66
34 41 13 00-0210	LF	16 AWG, 4-Conductor, Solid, Traffic Signal Cable	1.70	0.70
34 41 13 00-0211	LF	16 AWG, 5-Conductor, Solid, Traffic Signal Cable	1.83	0.74
34 41 13 00-0212	LF	16 AWG, 6-Conductor, Solid, Traffic Signal Cable	2.02	0.79
34 41 13 00-0213	LF	16 AWG, 8-Conductor, Solid, Traffic Signal Cable	2.33	0.87
34 41 13 00-0214	LF	16 AWG, 10-Conductor, Solid, Traffic Signal Cable	2.73	1.01
34 41 13 00-0215	LF	16 AWG, 12-Conductor, Solid, Traffic Signal Cable	3.12	1.14
34 41 13 00-0216	LF	16 AWG, 16-Conductor, Solid, Traffic Signal Cable	3.68	1.26
34 41 13 00-0217	LF	16 AWG, 20-Conductor, Solid, Traffic Signal Cable	4.30	1.40
34 41 13 00-0218	LF	14 AWG, 2-Conductor, Solid, Traffic Signal Cable	1.43	0.61
34 41 13 00-0219	LF	14 AWG, 3-Conductor, Solid, Traffic Signal Cable	1.60	0.66
34 41 13 00-0220	LF	14 AWG, 4-Conductor, Solid, Traffic Signal Cable	1.77	0.70
34 41 13 00-0221	LF	14 AWG, 5-Conductor, Solid, Traffic Signal Cable	1.92	0.74
34 41 13 00-0222	LF	14 AWG, 6-Conductor, Solid, Traffic Signal Cable	2.13	0.79
34 41 13 00-0223	LF	14 AWG, 8-Conductor, Solid, Traffic Signal Cable	2.47	0.87
34 41 13 00-0224	LF	14 AWG, 10-Conductor, Solid, Traffic Signal Cable	2.91	1.01
34 41 13 00-0225	LF	14 AWG, 12-Conductor, Solid, Traffic Signal Cable	3.33	1.14
34 41 13 00-0226	LF	14 AWG, 16-Conductor, Solid, Traffic Signal Cable	3.96	1.26
34 41 13 00-0227	LF	14 AWG, 20-Conductor, Solid, Traffic Signal Cable	4.68	1.40
34 41 13 00-0228	LF	12 AWG, 2-Conductor, Solid, Traffic Signal Cable	1.52	0.61
34 41 13 00-0229	LF	12 AWG, 3-Conductor, Solid, Traffic Signal Cable	1.74	0.66
34 41 13 00-0230	LF	12 AWG, 4-Conductor, Solid, Traffic Signal Cable	1.95	0.70
34 41 13 00-0231	LF	12 AWG, 5-Conductor, Solid, Traffic Signal Cable	2.13	0.74
34 41 13 00-0232	LF	12 AWG, 6-Conductor, Solid, Traffic Signal Cable	2.39	0.79
34 41 13 00-0233	LF	12 AWG, 8-Conductor, Solid, Traffic Signal Cable	2.82	0.87
34 41 13 00-0234	LF	12 AWG, 10-Conductor, Solid, Traffic Signal Cable	3.34	1.01
34 41 13 00-0235	LF	12 AWG, 12-Conductor, Solid, Traffic Signal Cable	3.85	1.14
34 41 13 00-0236	LF	12 AWG, 16-Conductor, Solid, Traffic Signal Cable	4.64	1.26
34 41 13 00-0237	LF	12 AWG, 20-Conductor, Solid, Traffic Signal Cable	5.59	1.40

34 41 13 00-0238 School Zone Flasher Beacons (34 41 13)



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 41 13 00-0239 EA One 8" Amber LED Beacon Head, Solar Panel School Zone Flasher Beacons Assembly Note: Includes 365 day timer, aluminum control/battery enclosure, 2 AGM cell batteries, brackets, 30 Watt tilted solar panel, solar regulator, and solid state flasher.	3,495.15	132.82
34 41 13 00-0240 EA One 12" Amber LED Beacon Head, Solar Panel School Zone Flasher Beacons Assembly Note: Includes 365 day timer, aluminum control/battery enclosure, 2 AGM cell batteries, brackets, 30 Watt tilted solar panel, solar regulator, and solid state flasher.	3,519.97	132.82
34 41 13 00-0241 EA Two 8" Amber LED Beacon Head, Solar Panel School Zone Flasher Beacons Assembly Note: Includes 365 day timer, aluminum control/battery enclosure, 2 AGM cell batteries, brackets, 40 Watt tilted solar panel, solar regulator, and solid state flasher.	3,941.44	132.82
34 41 13 00-0242 EA Two 12" Amber LED Beacon Head, Solar Panel School Zone Flasher Beacons Assembly Note: Includes 365 day timer, aluminum control/battery enclosure, 2 AGM cell batteries, brackets, 40 Watt tilted solar panel, solar regulator, and solid state flasher.	4,020.89	132.82
34 41 13 00-0243 EA 10" Digit Radar Display, One 12" Amber LED Beacon Head, Solar Panel School Zone Flasher Beacons Assembly Note: Includes 365 day timer, aluminum control/battery enclosure, 2 AGM cell batteries, brackets, 80 Watt tilted solar panel, solar regulator, and solid state flasher.	7,376.03	132.82
34 41 13 00-0244 EA 10" Digit Radar Display, Two 12" Amber LED Beacon Head, Solar Panel School Zone Flasher Beacons Assembly Note: Includes 365 day timer, aluminum control/battery enclosure, 2 AGM cell batteries, brackets, 40 Watt tilted solar panel, solar regulator, and solid state flasher.	7,687.36	132.82
34 41 13 00-0245 Traffic Light Control Synchronization (34 41 13)		
34 41 13 00-0246 EA ENCOM COMPAK IP Radio/Wireless Ethernet Transceiver, 900 MHz FHSS 1 Watt output power and 128-bit data encryption with 1.1Mbps Throughput	3,042.88	
34 41 13 00-0247 EA ENCOM 5200R 900 MHz Serial Radio Modem, contains one Serial (RS-232 or RS-485) interface and 170/TS1/TS2 detector rack (EPR-5200R).....	2,275.38	
34 41 13 00-0248 EA ENCOM Dual 2.4/2.4 GHZ Broadband Radio with Integrated Antenna (COMMPAKBB24/24).....	5,249.68	
34 41 13 00-0249 EA 5.8 GHZ Broadband Radio with Integrated Antenna (COMMPAKBB58INT).....	3,571.48	
34 41 13 00-0250 EA 2.4 GHZ Broadband Radio with Integrated Antenna (COMMPAKBB24INT).....	3,571.48	
34 41 13 00-0251 EA Solar Cabinet Assembly.....	9,688.51	
34 41 13 00-0252 EA Data Controller Interface Cable Assembly.....	386.91	
34 41 13 00-0253 EA 900 MHz Splitter.....	451.33	
34 41 13 00-0254 EA 900 MHz Surge Suppressor.....	162.12	
34 41 13 00-0255 EA Surge-Radio Lead in Cable.....	101.97	
34 41 13 00-0256 EA 12DB GAIN YAGI Antenna.....	465.25	
34 41 13 00-0257 EA PELCO Antenna Mounting Bracket.....	313.79	
34 41 13 00-0258 MLF Coaxial Cable, LMR-400.....	2,472.47	
34 41 13 00-0259 EA Perle 16 Port Serial Server.....	2,639.58	
34 41 13 00-0260 EA Serial to Ethernet Card.....	1,380.97	
34 41 13 00-0261 EA 404 Stand Alone Modem (GDI 404).....	1,248.68	
34 41 13 00-0262 Traffic Signal Controls (34 41 13)		
34 41 13 00-0263 EA Master Card for Type 2070 or NEMA TS2 traffic controllers (CC-TS2).....	1,094.09	
34 41 13 00-0264 EA Extension Card for Type 2070 or NEMA traffic controllers (EX-TS2).....	447.94	
34 41 13 00-0265 EA AccessBox for contract closure master card (CC-ACC).....	158.46	
34 41 13 00-0266 EA Flush Mount Wireless Sensor (ATT VSN240-F).....	611.25	
34 41 13 00-0267 EA Flush Mount Wireless Sensor (Speed & Count VSN240-F).....	611.25	
34 41 13 00-0268 EA Epoxy Tube for Installation of Wireless Sensor (VSN240-EPX).....	94.41	
34 41 13 00-0269 EA SNAPS License for each enabled AP (SNAPS-PER-AP).....	258.24	
34 41 13 00-0270 Traffic Signal Devices (34 41 13)		
34 41 13 00-0271 EA 12" Polycarbonate Signal Head Housing (McCain).....	577.76	64.99
34 41 13 00-0272 EA 16" Polycarbonate Pedestrian Signal Housing (McCain).....	296.99	50.55
34 41 13 00-0273 EA Pedestrian Push Button Cap & Switch (McCain M31334).....	232.51	93.86
34 41 13 00-0274 EA Pedestrian Push Button Frame Assembly 4" Diameter Pole (McCain M19712).....	319.15	137.19
34 41 13 00-0275 EA Pedestrian Push Button Frame Assembly 2" Diameter Pole (McCain M30793).....	245.71	108.30
34 41 13 00-0276 EA 16 Channel Conflict Monitor (McCain 2010 ECLip).....	860.72	46.94
34 41 13 00-0277 EA LED Countdown Head (McCain GTX PS7-CFF1-VLA).....	178.28	18.05
34 41 13 00-0278 EA Traffic signal Video Detection Camera (Iteris RZ4-awdr).....	1,944.45	79.42
34 41 13 00-0279 EA Camera processor card (Iteris Edge Connect).....	4,429.17	115.52
34 41 13 00-0280 EA Wireless Broadband Radio (Encom BB58).....	4,182.43	108.30
34 41 13 00-0281 EA 24-port Gigabit and 4-port 1G/10G SFP+ Ethernet Switch (Etherwan EX77900).....	2,764.93	86.64
34 41 13 00-0282 EA Power Adapter (Mean Well DR-120-48).....	100.74	27.07
34 41 13 00-0283 LF 14/1 Cal Trans Type 2 Inductive Traffic Detection Loops (Advanced Digital Cable 8452).....	0.60	
34 41 13 00-0284 EA Radar Detection System (Wavetronix Matrix).....	8,053.78	274.37
34 41 13 00-0285 EA Pedestrian Audio Push Button (Polara APS).....	248.89	68.59
34 41 13 00-0286 EA Opticom Infrared System - Detector (GTT 711).....	628.11	64.40
34 41 13 00-0287 EA Opticom Infrared System - Detector (GTT 721).....	702.75	72.05
34 41 13 00-0288 EA Opticom Infrared System - Detector (GTT 722).....	978.77	100.36
34 41 13 00-0289 EA Opticom Multimode Phase Selector (GTT 764).....	3,198.54	59.40
34 41 13 00-0290 LF Opticom GPS Installation Cable (GTT 1070).....	0.73	
34 41 13 00-0291 EA Precast Concrete Traffic Pull Box, 5-T, with steel frame & diamond steel plate lid ("Traffic Signal") (Jensen Precast HT1324).....	537.66	
34 41 13 00-0292 EA Precast Concrete Traffic Pull Box, 6-T, with steel frame & diamond steel plate lid ("Traffic Signal") (Jensen Precast HT1730).....	570.23	
34 41 13 00-0293 EA UPS Module (Alpha Technologies FXM 350)..... Note: For battery backup in traffic signal control cabinet	871.61	39.53
34 41 13 00-0294 EA Web Connected Relay Switch (Control by Web X-301 WebRelay-Dual)..... Note: To control flashing "School" signs	277.64	32.49
34 41 13 00-0295 LF Fiber optic cable, 72 strand, single mode, riser non-plenum jacket (Optical Cable Corp DX072DSLX9KR).....	6.15	0.33
34 41 13 00-0296 LF Fiber optic cable, 12 strand, multi mode, riser non-plenum jacket (Superior Essex W30126G01 MM Fiber).....	1.51	0.28

34 Transportation**34 40 Transportation Signaling and Control Equipment****34 41 Roadway Signaling and Control Equipment**

MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

34 41 13 00-0297	EA	12" LED Signal Module, Tinted Lens, Red (GE DR6-RTFB-VLA).....	85.51	32.49
34 41 13 00-0298	EA	12" LED Signal Module, Tinted Lens, Yellow (GE DR6-YTFB-VLA).....	85.51	32.49
34 41 13 00-0299	EA	12" LED Signal Module, Tinted Lens, Green (GE DR6-GTFB-VLA).....	85.51	32.49
34 41 13 00-0300	EA	12" LED Signal Module, Clear Lens, Red (GE DR6-RCFB-VLA).....	85.51	32.49
34 41 13 00-0301	EA	12" LED Signal Module, Clear Lens, Yellow (GE DR6-YCFB-VLA).....	85.51	32.49
34 41 13 00-0302	EA	12" LED Signal Module, Clear Lens, Green (GE DR6-GCFB-VLA).....	85.51	32.49
34 41 13 00-0303	EA	LED Countdown Pedestrian Signal, 16" x 18" (GE PS7-CFF1-VLA).....	250.58	83.03
34 41 13 00-0304	EA	EOC Switch (Actellis ML688).....	3,208.79	256.97
34 41 13 00-0305	EA	Ethernet Extender Kit (ENABLE-IT 860 Pro).....	862.79	59.30
34 41 13 00-0306	EA	#5 pull box lid (Concrete, Bolt down) (Christy N30T).....	76.78	18.47
34 41 13 00-0307	EA	#5 pull box lid (Steel, Bolt down) (Christy N30-61J).....	257.27	26.74
34 41 13 00-0308	EA	#6 pull box lid (Concrete, Bolt down) (Christy N36T).....	93.49	18.47
34 41 13 00-0309	EA	#6 pull box lid (Steel, Bolt down) (Christy N36-61J).....	308.99	26.74
34 41 13 00-0310	EA	Battery Back-up (Alpha FXM110 UPS).....	2,064.19	79.07
34 41 13 00-0311	EA	Battery (Alpha AlphaCell 220GXL).....	293.67	19.77
34 41 13 00-0312	EA	BBS Cabinet (Alpha SE48-1616).....	2,388.93	177.90
34 41 13 00-0313	LF	Fiber 72 Strands (Corning 072ZU4-T3F22D20).....	3.86	1.54
34 41 13 00-0314	LF	Fiber 12 Strands (Corning 012ZU4-T3F22D20).....	1.70	0.71
34 41 13 00-0315	EA	FDU & Splice Cassette with LC connector type (Corning CCH-01U, CCH-CS12-B3-P00RE).....	742.87	59.30
34 41 13 00-0316	EA	12" THREE SECTION HOUSING (McCain M22435).....	511.11	39.53
34 41 13 00-0317	EA	12" FOUR SECTION HOUSING (McCain M30883).....	658.65	59.30
34 41 13 00-0318	EA	12" FIVE SECTION HOUSING (McCain M31769).....	766.66	59.30
34 41 13 00-0319	EA	12" CLUSTER, WITHOUT MAS (McCain M30987).....	820.66	59.30
34 41 13 00-0320	EA	CMU DATAKEY PROGRAMMER, EDI MONITORKEY-USB (McCain M84650).....	511.11	39.53
34 41 13 00-0321	EA	NAVIGATOR iN2 APS 2 WIRE PPB #IN250N0-B (Polara iN250N0-B).....	511.11	39.53
34 41 13 00-0322	EA	NAVIGATOR iN2 CONTROLLER RACK MOUNT iCCU-C (Polara iCCU-C).....	2,976.99	138.36
34 41 13 00-0323	EA	NAVIGATOR iN2 INTERCONNECT BOARD iN2-ICB-C (Polara iN2-ICB-C).....	147.54	19.77
34 41 13 00-0324	EA	NAVIGATOR iN2 POWER SUPPLY iN2-150-WPS-C (Polara iN2-150-WPS-C).....	147.54	19.77
34 41 13 00-0325	EA	NAVIGATOR iN2 CONNECTOR iN2-C4CABLE-C (Polara iN2-c4cable-C).....	329.32	29.65
34 41 13 00-0326	EA	12" Visor (McCain M19302).....	26.62	7.91
34 41 13 00-0327	EA	LS,2202-HV (iPack), HDSP/FLASHER UNIT,ATC (McCain M36256).....	275.32	29.65
34 41 13 00-0328	EA	SIU,2218 SERIAL INTERFACE UNIT,ATC (McCain M36258).....	457.11	39.53
34 41 13 00-0329	EA	CMU,2212-HV (ip),32 CH W/ ETHERNET PORT, ATC (McCain M36259).....	847.67	59.30
34 41 13 00-0330	EA	ATCC-HV, INPUT ASSEMBLY, 24 CH W/ CONN IDC26 (McCain M54487).....	457.11	39.53
34 41 13 00-0331	EA	HARN, SB1/SB2,COMM EXTENSION (McCain M48062).....	93.53	19.77
34 41 13 00-0332	EA	ATCC-HV/LV, FITA ASSEMBLY, 24CH (McCain M54489).....	275.32	29.65
34 41 13 00-0333	EA	CMU DATAKEY PROGRAMMER, EDI MONITORKEY-USB (McCain M84650).....	511.11	39.53
34 41 13 00-0334	EA	242L ISOLATOR, EDI (McCain M56812).....	93.53	19.77
34 41 13 00-0335	EA	EDI 222 DETECTOR (McCain M11407).....	120.54	19.77
34 41 13 00-0336	EA	ALPHA BBS, INVERTER & BYPASS SWITCH (McCain M59763).....	2,033.83	98.83
34 41 13 00-0337	EA	GENERATOR SWITCH AND PLUG ASSY FOR ALPHA BBS (McCain M68752-2).....	338.29	39.53
34 41 13 00-0338	EA	BBS BATTERY, ALPHACELL 165GXL (McCain M59884).....	457.11	39.53
34 41 13 00-0339	EA	Battery Backup Cabinet Anondize 44x26x12 (McCain M64438A).....	955.68	59.30

34 41 16 Traffic Control Equipment (34 41)**34 41 16 00-0001 Transportation Control Equipment (34 41 16)**

34 41 16 00-0002	EA	CONTROLLER/SL/POLE MTD/1-PHASE/100A.....	6,869.67	610.76
34 41 16 00-0003	EA	CONTROLLER/SL/ON EMB POLE 1-PH/100A.....	6,940.03	645.93
34 41 16 00-0004	EA	CONTROLLER, SL, 3-PHASE, 100A, BASE MTD.....	8,483.87	653.53
34 41 16 00-0005	EA	CONTROLLER, SL, 3-PHASE, 200A, BASE MTD.....	10,082.12	793.50
34 41 16 00-0006	EA	CONTROLLER/SL/BASE MTD/1-PHASE/100A.....	8,338.98	391.45
34 41 16 00-0007	EA	CONTROLLER/SL/BASE MTD/1-PHASE/200A.....	9,246.55	428.56
34 41 16 00-0008	EA	CONTROLLER, TS, 12-BAY, "M" CABINET.....	15,236.63	673.76
34 41 16 00-0009	EA	CONTROLLER, TS, 12-BAY, "P" CABINET.....	16,211.63	746.67
34 41 16 00-0010	EA	CONTROLLER, TS, 12-BAY "P" CABINET With FO MASTER.....	23,238.10	839.45
34 41 16 00-0011	EA	CONTROLLER, TS, 16-BAY, "P" CABINET.....	18,381.83	795.26
34 41 16 00-0012	EA	CONTROLLER, PEDESTRIAN CROSSING, ADD-IN.....	528.75	93.40
34 41 16 00-0013	EA	CONCRETE BLOCK PEDESTAL.....	534.18	140.23
34 41 16 00-0014	WK	MAINTAIN EXIST TS INSTALLATION.....	219.51	109.75
34 41 16 00-0015	EA	INST SIGN BOARDS, ST. NAME.....	393.92	184.95
34 41 16 00-0016	EA	F.O. ADD-IN FOR LOCAL CONTROLLER.....	7,749.22	247.15
34 41 16 00-0017	EA	F.O. ADD-IN FOR MASTER CONTROLLER.....	18,776.70	370.83
34 41 16 00-0018	EA	PDU Equipped netBooster With IEC320 C13 Outlets (Synaccess NP-0808DUH).....	618.14	10.29
34 41 16 00-0019	EA	Remote Power Switched netBooster PDU, 8 Independent Outlets (Synaccess NP-0801DU).....	351.75	10.29

34 41 16 00-0020 Transportation Cabinets (34 41 16)**34 41 16 00-0021 Transportation Cabinets (Dudlik Enclosures) (34 41 16 00-0020)**

34 41 16 00-0022	EA	50" x 30" x 17", Aluminum CCTV Cabinet (Dudlik Enclosures).....	1,636.03	118.60
34 41 16 00-0023	EA	66" x 48" x 30", Quad Door, 19" Racks, Aluminum CCTV Cabinet (Dudlik Enclosures).....	6,937.42	118.60
34 41 16 00-0024	EA	46" x 30" x 20", 19" Rack, Aluminum TTS Cabinet (Dudlik Enclosures).....	1,530.23	118.60
34 41 16 00-0025	EA	50" x 30" x 17", Aluminum ITS Controller Cabinet (Dudlik Enclosures).....	1,636.03	118.60
34 41 16 00-0026	EA	60" x 50" x 36", Quad Door, 19" Racks, Aluminum Fiber Cross Connect Cabinet (Dudlik Enclosures).....	7,172.51	118.60
34 41 16 00-0027	EA	55" x 16" x 17", Aluminum ITS Meter Cabinet (Dudlik Enclosures).....	1,060.04	118.60

34 41 16 00-0028 Transportation Cabinets (APX Enclosures) (34 41 16 00-0020)



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 41 16 00-0029 EA 28" Wide, 16" Depth, 46" High, ITS Controller Cabinet (APX Enclosure LS503017) Note: 3R, single door, pad mounted aluminum enclosure. Includes natural finish, aluminum back panel, light kit with door switch, thermostatically controlled fan kit, heater kit with thermostat, one aluminum moveable shelf, and one aluminum moveable shelf with slide out drawer. Excludes pad.	3,968.22	138.36
34 41 16 00-0030 Transportation Cabinets (Transportation Control Systems) (34 41 16 00-0020)		
34 41 16 00-0031 EA 30" Wide, 16" Depth, 48" High, Type 4, Aluminum Transportation Cabinet With Door Vents (Transportation Control Systems B483016B2D2S).....	1,542.22	118.60
34 41 16 00-0032 EA 30" Wide, 16" Depth, 60" High, Type 4 Stretch, Aluminum Transportation Cabinet With Door Vents (Transportation Control Systems B603016B2D2S)	1,920.52	126.51
34 41 16 00-0033 Transportation Cabinets (McCain) (34 41 16 00-0020)		
34 41 16 00-0034 EA 24" Wide, 30" Depth, 67" High, ATC Cabinet (McCain 352i)..... Note: 3R, single door, pad mounted anodized aluminum enclosure. Excludes pad.	7,232.19	138.36
34 41 16 00-0035 EA 24" Wide, 30" Depth, 67" High, ATC Cabinet (McCain 332)..... Note: 3R, single door, pad mounted anodized aluminum enclosure. Excludes pad.	7,232.19	138.36
34 41 16 00-0036 EA ATC ColdFire Controller (McCain 170).....	3,715.62	
34 41 16 00-0037 Traffic Control Equipment (34 41 16)		
34 41 16 00-0038 EA ProStar PWM Charge Controller 12/24V, 15A Without Display (Morningstar PS-15).....	188.79	39.53
34 41 16 00-0039 EA ProStar PWM Charge Controller 12/24V, 15A With Display (Morningstar PS-15M).....	248.24	39.53
34 41 16 00-0040 EA ProStar PWM Charge Controller 12/24V, 30A With Display (Morningstar PS-30M).....	286.00	39.53
34 41 16 00-0041 EA ProStar PWM Charge Controller 12/24V, 30A Without Display (Morningstar PS-30).....	221.80	39.53
34 41 16 00-0042 MLF 10 AWG, 2 Conductor, 600V, Type TC, Non-Shielded Control Tray Cable (EnerSys A51002R).....	1,749.12	433.22
34 41 16 00-0043 EA Vehicle Detector, Circuit Breaker, 0.2 Amperes, Wavetronix SmartSensor (Wavetronix WX-CLK-210-02).....	75.78	19.77
34 41 16 00-0044 EA Vehicle Detector, 2.4 GHz 12 dBi Omni Antenna, Wavetronix SmartSensor (Wavetronix WX-100-0141).....	342.30	44.27
34 41 16 00-0045 EA Detection System, Vehicle, Two Sensor Preamsembled Backplate, with AC Power (Wavetronix WX-SSB01-0003).....	1,788.14	132.82
34 41 16 00-0046 EA Vehicle Detector, Power Supply, 24V DC 4 A (Wavetronix WX-CLK-204).....	323.49	19.77
34 41 16 00-0047 EA Vehicle Detector, 4-Channel Contact Matrix Closure, Rack Card (Wavetronix WX-CLK-114).....	462.45	19.77
34 41 16 00-0048 EA 4 Channel Din-Rail Contact Closure Module (Wavetronix WX-CLK-104).....	532.20	39.53
34 41 16 00-0049 EA Detection System, Vehicle, Four Sensor Preamsembled Backplate, With AC Power, Wavetronix Smartsensor (Wavetronix WX-SS-B01-0005).....	2,326.58	39.53
34 41 16 00-0050 EA 50' Wavetronix Wiring Whip (Wavetronix WX-SS-708-060).....	265.63	132.82
34 41 16 00-0051 EA 60', 6-Conductor Power And Communication Cable With Connector (Wavetronix WX-SS-704-060).....	338.28	33.20
34 41 16 00-0052 EA 900 MHz 5 dBi Omni Antenna, Wavetronix SmartSensor (Wavetronix WX-100-0119).....	293.97	44.27
34 41 16 00-0053 EA 900 MHz 9 dBi Yagi Antenna, Wavetronix SmartSensor (Wavetronix WX-100-0120).....	185.22	44.27
34 41 16 00-0054 EA Wavetronix Click 201 AC To DC Power Converter (Wavetronix WX-CLK-201).....	202.66	19.77
34 41 16 00-0055 EA 24V DC 2 A, Wavetronix Smartsensor (Wavetronix WX-CLK-202).....	244.95	19.77
34 41 16 00-0056 EA Coax Surge N-Type, Wavetronix SmartSensor (Wavetronix WX-CLK-250).....	112.03	19.77
34 41 16 00-0057 EA Power, RS232/RS485 Surge, Wavetronix Smartsensor (Wavetronix WX-CLK-200).....	329.53	19.77
34 41 16 00-0058 EA Two Sensor Surge, Wavetronix SmartSensor (Wavetronix WX-CLK-222).....	371.82	19.77
34 41 16 00-0059 EA RS232 to RS485 Converter, Wavetronix SmartSensor (Wavetronix WX-CLK-304).....	462.45	19.77
34 41 16 00-0060 EA Wavetronix Click 301 Serial To Ethernet Converter (Wavetronix CLK-301).....	39.53	19.77
34 41 16 00-0061 EA Sensor Mount, Heavy Duty, 6 inch, 2 Axis Aluminum Bracket (Wavetronix WX-SS-611).....	300.01	44.27
34 41 16 00-0062 MLF LF, UV Resistant Polyethylene Jacketed Cable (Times Microwave Systems LMR-400).....	2,051.20	433.22
34 41 16 00-0063 EA N-Male (Plug) Clamp Connector (Times Microwave Systems TC-400-NMC).....	37.01	11.86
34 41 16 00-0064 EA Spectra IV SE Back Box, Heavy-Duty, Pendant Mount (Pelco BB4HD-PG-E).....	605.17	47.44
34 41 16 00-0065 EA Spectra III Clear Pendant Lower Dome, Heavy Duty (Pelco Id53hdpb-1).....	588.58	59.30
34 41 16 00-0066 EA 24" Height, Ceiling/Pedestal Mount For Pan/Tilts Or Enclosures (Pelco pm2000).....	181.60	19.77
34 41 16 00-0067 EA 10" Height, Ceiling/Pedestal Mount For Pan/Tilts Or Enclosures (Pelco pm2010).....	127.65	19.77
34 41 16 00-0068 EA 24 Volt AC, Remote Data Port (Pelco IPS-RDPE-2).....	272.68	19.77
34 41 16 00-0069 EA Spectra IV Remote Monitor Interface Cable (Pelco IPS-CABLE).....	131.30	19.77
34 41 16 00-0070 EA 120 Volt AC, 12.5 Watt, 12 Volt DC, 600 mA, External Plug In Power Supply (Triad Magnetics WDU12-600).....	53.28	19.77
34 41 16 00-0071 EA Control Area Network Direct Current Input/Output (Daktronics 0P-1247-0009)..... Note: Input/Output for sign peripherals.	441.57	39.53
34 41 16 00-0072 EA Control Area Network Direct Current Input/Output (Daktronics 0P-1247-4009)..... Note: Input/Output for sign peripherals.	441.57	39.53
34 41 16 00-0073 EA Control Area Network Distribution Board (Daktronics 0P-1248-0005)..... Note: Signal distribution point between sign modules and peripherals, and VFC-3000 Field Controller.	834.28	39.53
34 41 16 00-0074 EA Control Area Network Distribution Board (Daktronics 0P-1248-0011)..... Note: Signal distribution point between sign modules and peripherals, and VFC-3000 Field Controller.	834.28	39.53
34 41 16 00-0075 EA Control Area Network Temperature And Light Sensor (Daktronics 0P-1247-0019)..... Note: Measures temperature and detects light and reports to CAN Dist Board.	284.49	39.53
34 41 16 00-0076 EA Control Area Network Temperature, Light Sensor, And Humidity (Daktronics 0P-1247-0015)..... Note: Measures temperature and detects light and humidity and reports to CAN Dist board.	405.32	39.53
34 41 16 00-0077 EA Control Area Network Temperature, Light Sensor, And Humidity (Daktronics 0P-1247-0021)..... Note: Measures temperature and detects light and humidity and reports to CAN Dist board.	405.32	39.53
34 41 16 00-0078 EA Control Area Network Temperature And Light Sensor (Daktronics 0P-1247-0003)..... Note: Measures temperature and detects light and reports to CAN Dist board.	332.82	39.53
34 41 16 00-0079 EA Controller, VFC-3000 Field Controller NTICIPv1 (Daktronics 0A-1248-0016)..... Note: The "brains" of the sign. Receives information from NTICIP central software and reports status and diagnostic information.	5,753.80	158.13
34 41 16 00-0080 EA DC/DC, Direct Current to Direct Current Converter (Daktronics 0P-1247-0025)..... Note: Takes 24 Volt DC input from two power supplies and outputs 9 Volt DC for CAN Dist Board, providing power redundancy.	244.95	19.77
34 41 16 00-0081 EA Driver (Daktronics 0P-1100-0026)..... Note: Driver takes data packets from Control Area Network to determine what pixels (LED clusters) are ON and which are OFF.	462.01	31.62

34 Transportation**34 40 Transportation Signaling and Control Equipment****34 41 Roadway Signaling and Control Equipment**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 41 16 00-0082 EA External Temp Sensor (Daktronics 0P-1100-0014)..... Note: Sensor that measures ambient temperature.	407.64	31.62
34 41 16 00-0083 EA Internal Temp Sensor (Daktronics 0P-1100-0038)..... Note: Sensor that measures sign internal temperature.	455.97	31.62
34 41 16 00-0084 EA Light Level Detector (Daktronics 0P-1151-0002)..... Note: The values from the light sensors are used by the sign controller to determine the appropriate sign brightness.	274.72	31.62
34 41 16 00-0085 EA Module (Daktronics 0A-1253-0608)..... Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	834.28	39.53
34 41 16 00-0086 EA Module (Daktronics 0A-1253-3018)..... Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	1,045.74	39.53
34 41 16 00-0087 EA Module (Daktronics 0A-1266-5002)..... Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	924.91	39.53
34 41 16 00-0088 EA Module (Daktronics 0A-1332-6252)..... Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	1,287.41	39.53
34 41 16 00-0089 EA Module (Daktronics 0A-1332-6455)..... Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	1,045.74	39.53
34 41 16 00-0090 EA Module (Daktronics 0A-1332-6654)..... Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	1,045.74	39.53
34 41 16 00-0091 EA Module (Daktronics 0P-1332-3015)..... Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	562.41	39.53
34 41 16 00-0092 EA Module (Daktronics 0P-1332-4116)..... Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	562.41	39.53
34 41 16 00-0093 EA Module (Daktronics 0P-1332-5031)..... Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	562.41	39.53
34 41 16 00-0094 EA Module (Daktronics 0P-1332-5017)..... Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display.	562.41	39.53
34 41 16 00-0095 EA Module Without Pan (Daktronics 0A-1253-0603)..... Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display; without Pan (pan is the metal bracket that holds the module securely in place in the sign).	834.28	39.53
34 41 16 00-0096 EA Module Without Pan (Daktronics 0A-1253-1605)..... Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display; without Pan (pan is the metal bracket that holds the module securely in place in the sign).	834.28	39.53
34 41 16 00-0097 EA Module Without Pan (Daktronics 0A-1254-1601)..... Note: Printed circuit board with pixels (clusters of light emitting diodes) that illuminate on face of display; without Pan (pan is the metal bracket that holds the module securely in place in the sign).	834.28	39.53
34 41 16 00-0098 EA Pixel Strip (Daktronics 0P-1100-0016)..... Note: Pixel Strip is a smaller section of a module. Typically has three pixels (LED clusters) per strip.	290.53	39.53
34 41 16 00-0099 EA Pixel Strip (Daktronics 0P-1100-0029)..... Note: Pixel Strip is a smaller section of a module. Typically has three pixels (LED clusters) per strip.	338.86	39.53
34 41 16 00-0100 EA Power Supply (Daktronics A-1593)..... Note: Receives 120 Volt AC input and outputs appropriate Volt DC for modules.	985.33	39.53
34 41 16 00-0101 EA Power Supply (Daktronics A-1648)..... Note: Receives 120 Volt AC input and outputs appropriate Volt DC for modules.	985.33	39.53
34 41 16 00-0102 EA Power Supply (Daktronics A-2307)..... Note: Receives 120 Volt AC input and outputs appropriate Volt DC for modules.	381.15	39.53
34 41 16 00-0103 EA Surge Suppressor (Daktronics A-1129)..... Note: Receives 120 Volt AC input and outputs appropriate Volt DC for modules.	156.19	23.72
34 41 16 00-0104 EA Surge Suppressor (Daktronics A-1412)..... Note: Receives 120 Volt AC input and outputs appropriate Volt DC for modules.	319.32	23.72
34 41 16 00-0105 EA Surge Suppressor (Daktronics A-1772)..... Note: Receives 120 Volt AC input and outputs appropriate Volt DC for modules.	319.32	23.72
34 41 16 00-0106 EA Surge Suppressor (Daktronics A-2139)..... Note: Receives 120 Volt AC input and outputs appropriate Volt DC for modules.	470.36	23.72
34 41 16 00-0107 EA VCB, Vanguard Control Board (Daktronics 0P-1248-0022)..... Note: Receives high speed serial communication over fiber or CAT5 from VFC-3000 and reports sign status and peripheral diagnostics.	798.03	39.53
34 41 16 00-0108 EA VMS I/O, Variable Message Sign Input/Output (Daktronics 0P-1194-0001)..... Note: Input/Output board for sign peripherals.	1,075.95	39.53
34 41 16 00-0109 EA Power Supply Assembly (Daktronics A-1856R).....	713.45	39.53
34 41 16 00-0110 EA Power Supply Isolation Board (Daktronics 0P-1447-2000).....	471.78	39.53
34 41 16 00-0111 EA Ventilation/Circulation Fan (Daktronics B-1075).....	181.78	39.53
34 41 16 00-0112 EA VMS Controller (V2) (Daktronics 0A-1248-0028).....	5,753.80	158.13
34 41 16 00-0113 EA Photo/Temp Sensor (Daktronics 0P-1247-0015).....	405.32	39.53
34 41 16 00-0114 EA Defog Fan (Daktronics B-1053).....	69.74	19.77
34 41 16 00-0115 EA Defog Heater (Daktronics A-1792).....	87.86	19.77
34 41 16 00-0116 EA Display Card 1500, 15" Clear (Ver-Mac PB-AFF-06023A-03 PF).....	532.20	39.53
34 41 16 00-0117 EA Display Card 1500, 30" Amber (Ver-Mac PB-AFF-06023-01 PF).....	532.20	39.53
34 41 16 00-0118 EA 1-Port Decoder With H.264 And High-Definition Technology (Verint S1801E-R).....	691.27	39.60
34 41 16 00-0119 EA 1-Port Video Encoder Featuring H.264 Technology With One Bi-directional Audio Channel And 12V DC Universal Power Supply (Verint S1801E).....	691.27	39.60
34 41 16 00-0120 EA 16-Port Video Encoder Featuring H.264 Technology (Verint S1816E).....	3,705.32	39.60
34 41 16 00-0121 EA Encoder H.264 Compact, Hiperfmc (Verint S1802E).....	890.83	39.60
34 41 16 00-0122 EA 110 Volt AC To 12 Volt DC At 45 Watt, Transformer (Verint PS1261).....	124.20	19.77
34 41 16 00-0123 EA 1-Channel Encoder, H.264 Dual-Streaming, SD Card Slot (Bosch VIP-X1XF-E).....	429.00	39.60
34 41 16 00-0124 EA Single/Quad-Stream Decoder (Bosch VIP-XD).....	1,106.84	39.60
34 41 16 00-0125 EA 1-Output, Outdoor-Rated CCTV Power Supply Unit, 24/26/28 Volt AC (Pelco WCS1-4).....	235.46	39.53
34 41 16 00-0126 EA 4-Outputs, Outdoor-Rated CCTV Power Supply With Circuit Breaker, 24/28 Volt AC (Pelco WCS4-20B).....	554.60	39.53
34 41 16 00-0127 EA 12.5kVA, 12 Volt, 75Ah, UPS Battery (UPG UB12750).....	169.45	9.90
34 41 16 00-0128 EA Managed Ethernet Switch with 4 10/100TX Ports + 4 100FX Fiber Ports (EtherWAN EX71440-B0B).....	2,136.73	79.07
34 41 16 00-0129 EA Power Supply, Hardened, External 100-240 Volt AC Input; TS2 rated; 12 Volt DC Output Power (EtherWAN 41-136046-1).....	135.43	19.77
34 41 16 00-0130 EA 4kVA / 3.6kW Split-Phase Power Module (Eaton 9PXMSPPM).....	1,933.71	39.53
34 41 16 00-0131 EA 208-240 Volt, 4-20kVA Rack/Tower UPS (Eaton 9PXM).....	4,578.50	195.69



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 41 16 00-0132 EA 30 Amperes, 600 Volt, 3-Pole, Fusible, NEMA 3R Rainproof, Safety Switch (Square D H361RB).....	619.56	102.79
34 41 16 00-0133 EA 30 Amperes, 600 Volt, LKS Fuse (Eaton Bussmann LKS-30)	16.03	6.32
34 41 16 00-0134 EA 60 Amperes, 600 Volt, 3-Pole, Fusible, Heavy Duty, Safety Switch (Square D H362DS).....	1,587.85	79.07
34 41 16 00-0135 EA 60 Amperes, 600 Volt, Dual Element, Time-Delay Fuse (Eaton Bussmann FRS-R-60)	34.39	6.32
34 41 16 00-0136 EA 50 Mbps, MIMO 2x2, 15 dBi Integrated Antenna (Proxim Wireless TSUNAMI QB-820).....	1,406.07	44.27
34 41 16 00-0137 EA Singlemode Loaded Fiber Adapter Panel, 6 Simplex SC/UPC Adapters (Multi-Link 10-4810)	81.94	30.05
34 41 16 00-0138 EA 12" x 6" x 5-1/2", 2 Panel, 2 Splice Dual Security Door, Compact Wall Mount Fiber Distribution Unit (Multilink 10-4469).....	227.18	39.53
34 41 16 00-0139 EA Single AC Inlet, 8 Nema 5-15 Outlets, Built-in AC Current Drawing Sensing Module (Synaccess NP-0801DT)	394.78	10.29
34 41 16 00-0140 EA Aggregated TRMS AC Current Sensing, One Readout For All Outlets (Synaccess NP-0801DT(H))	425.34	10.29
34 41 16 00-0141 EA 550 Watt, 120 Volt AC, Fan Heater With Adjustable Thermostat, 32-140 Degree Fahrenheit (Stego CR-027)	227.57	15.82
34 41 16 00-0142 EA 10/100M Switch, 4 x 1G Combo, LAN Base (Cisco IE-4000-4TC4G-E)	2,740.32	94.88
34 41 16 00-0143 EA 12 Port, 2 Panel, Wall Mount, Compact Fiber Distribution Unit (Multilink FVW012XLC)	103.34	18.18
34 41 16 00-0144 EA 6-Fiber, Singlemode, SC Simplex, Fiber Optic Cable Connector Panel (Multilink MSC-06-SM-C-BLK)	26.23	3.95
34 41 16 00-0145 EA 170 Watt AC To DC, Industrial Ethernet Family Power Supply (Cisco PWR-IE170W-PC-AC)	1,724.53	39.53
34 41 16 00-0146 EA 12 Port, Industrial Ethernet Layer 3 Switch Installed In Transportation Control Equipment (Cisco IE-4000-4GC4GP4G-E)	3,421.27	79.07
34 41 16 00-0147 EA 2 KVA, 1,800 Watt, 120 Volt AC Output, 120 Volt AC Input, Single Phase, On-Line Uninterruptible Power Supply (UPS) (Xtreme Power P90-3000)	2,024.54	130.47
34 41 16 00-0148 EA 100 Amperes, 16 Circuit, Main Lug Load Center Panelboard, 8-1 AWG, 120/240 Volt, Single Phase (Square D QO816L100DS)	504.18	226.13
34 41 16 00-0149 EA 70 Amperes, 4 Circuit, Main Lug Load Center Panelboard, 3 Wire, 120/240 Volt, Single Phase (Square D QO24L70S).....	351.52	158.13
34 41 16 00-0150 EA 60 Amperes, 120/240 Volt, 2 Pole Common Trip Miniature Circuit Breaker, Plug On Mounting (Square D QO260)	70.94	21.35
34 41 16 00-0151 EA 15 Amperes, 120/240 Volt, 1 Pole Thermal Magnetic Miniature Circuit Breaker, Plug On Mounting (Square D QOT1515).....	53.35	14.23
34 41 16 00-0152 EA 15 Amperes, 120/240 Volt, 1 Pole Thermal Magnetic Miniature Circuit Breaker, Plug On Mounting (Square D QO120).....	42.42	14.23
34 41 16 00-0153 EA 20 Amperes, 120/240 Volt, 1 Pole Thermal Magnetic Miniature Circuit Breaker, Plug On Mounting (Square D QO120).....	42.42	14.23
34 41 16 00-0154 EA One Output Outdoor-rated CCTV Power Supply Unit, 24/26/28 Volt AC At 4 Amperes Total Supply Current, Fuse Protected Output, UL Listed (Pelco WCS1-4).....	235.46	39.53
34 41 16 00-0155 EA DIN Rail Mount, Switching Power Supply (TKH Security PSR12DC)	189.36	19.80
34 41 16 00-0156 EA H.264 Multi-codec Video Encoder With Audio, Data And CC's (TKH Security C-60-E-MC)	1,740.85	19.80
34 41 16 00-0157 EA Expansion Power Module For IE-3000-4TC And IE-3000-8TC (Cisco PWR-IE50W-AC-IEC)	340.03	10.29
34 41 16 00-0158 EA Traffic Monitoring System (BlueToad Spectra Cellular/Solar Version).....	6,989.35	132.82
34 41 16 00-0159 EA Ubiquiti Rocket M9 Wireless Access Point (ROCKETM9)	273.04	44.27

34 70 Transportation Construction And Equipment ⁽³⁴⁾

34 71 Roadway Construction ^(34 70)

34 71 13 Vehicle Barriers ^(34 71)

34 71 13 13 Vehicle Median Barriers ^(34 71 13)

34 71 13 13-0001 Concrete Median Barrier ^(34 71 13 13)

34 71 13 13-0002 LF Median Barrier, Precast, 42" High Single Face.....	51.53	3.57
34 71 13 13-0003 LF Median Barrier, Precast, 32" High, 2' Wide Base, Double Face.....	90.62	3.57
34 71 13 13-0004 LF Median Barrier, Precast, 42" High, 2' Wide Base, Double Face.....	131.27	3.57
34 71 13 13-0005 LF Median Barrier, Cast In Place With Steel Forms.....	36.46	5.00
34 71 13 13-0006 LF Median Barrier, Slipformed Concrete.....	30.43	2.83

34 71 13 16 Vehicle Crash Barriers ^(34 71 13)

34 71 13 16-0001 Impact Barrier, Non-Redirective ^(34 71 13 16)

34 71 13 16-0002 Sand Barrel Impact Attenuator ^(34 71 13 16-0001)

34 71 13 16-0003 EA 200, 400 Or 700 LB Sand Barrel.....	632.85	44.74
Note: Includes containers, inserts, and lid.		

34 71 13 26 Vehicle Guide Rails ^(34 71 13)

34 71 13 26-0001 Mobilize Guide Rail Crew ^(34 71 13 26)

34 71 13 26-0002 EA Mobilize Guide Rail Crew.....	1,125.93	
Note: Excludes equipment mobilization.		

34 71 13 26-0003 Corrugated Beam Guide Rail ^(34 71 13 26)

34 71 13 26-0004 Corrugated Beam Guide Railing ^(34 71 13 26-0003)

34 71 13 26-0005 Corrugated Beam Guide Railing, Straight Sections ^(34 71 13 26-0004)

Note: Add additional length for back-up sections.		
34 71 13 26-0006 LF Corrugated Beam Guide Railing	15.15	2.01
34 71 13 26-0007 LF Corrugated Beam Guide Railing (Rustic).....	16.32	2.01

34 71 13 26-0008 Corrugated Beam Guide Railing, Shop Curved ^(34 71 13 26-0004)

Note: Add additional length for back-up sections.

34 Transportation**34 70 Transportation Construction And Equipment****34 71 Roadway Construction**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 71	13 26-0009	LF	Shop Curved Corrugated Beam Guide Railing	19.74	2.01
34 71	13 26-0010	LF	Shop Curved Corrugated Beam Guide Railing (Rustic)	21.36	2.01
34 71	13 26-0011	LF	Shop Curved Corrugated Beam Guide Railing End	50.39	2.01
			Note: Treatment for mall barriers driveways, walkways, special end, etc.		
34 71	13 26-0012	LF	Shop Curved Corrugated Beam Guide Railing (Rustic) End	54.97	2.01
			Note: Treatment for mall barriers shop curved corrugated beam guide railing end etc.		
34 71	13 26-0013		Corrugated Beam Guide Railing, Manufactured End Sections (34 71 13 26-0003)		
34 71	13 26-0014	EA	Corrugated Beam Guide Railing End Section At Anchor Unit	115.27	26.54
34 71	13 26-0015	EA	Corrugated Beam Guide Railing End Section (Rustic) At Anchor Unit	121.53	26.54
34 71	13 26-0016	EA	Corrugated Beam Guide Railing Flared Or 180 Degree End Section	152.81	26.54
34 71	13 26-0017	EA	Corrugated Beam Guide Railing Flared Or 180 Degree End Section (Rustic)	159.06	26.54
34 71	13 26-0018	EA	Corrugated Beam Guide Railing 225 Degree End Section	152.81	26.54
34 71	13 26-0019	EA	Corrugated Beam Guide Railing 225 Degree End Section (Rustic)	159.06	26.54
34 71	13 26-0020		Corrugated Beam Guide Rail Posts (34 71 13 26-0003)		
			Note: Includes mounting hardware.		
34 71	13 26-0021	EA	Standard Post For Corrugated Beam Guide Rail	117.09	12.77
			For Installation Without Soil Plate, Deduct	-5.00	
			For Installation In Rock, Add	3.40	
34 71	13 26-0022	EA	Standard Post For (Rustic) Corrugated Beam Guide Rail	123.35	12.77
			For Installation Without Soil Plate, Deduct	-5.00	
			For Installation In Rock, Add	3.40	
34 71	13 26-0023	EA	Extra Long Post For Corrugated Beam Guide Rail	129.61	12.77
			For Installation Without Soil Plate, Deduct	-5.00	
			For Installation In Rock, Add	3.40	
34 71	13 26-0024	EA	Extra Long Post (Rustic) For Corrugated Beam Guide Rail	135.86	12.77
			For Installation Without Soil Plate, Deduct	-5.00	
			For Installation In Rock, Add	3.40	
34 71	13 26-0025	EA	6B8-1/2" or Mall Barrier Post for Corrugated Beam Guide Rail	117.09	12.77
			For Installation Without Soil Plate, Deduct	-5.00	
			For Installation In Rock, Add	3.40	
34 71	13 26-0026	EA	Post Struts for Corrugated Beam Guide Rail Mall Barrier Post	167.14	12.77
			For Installation In Rock, Add	3.40	
34 71	13 26-0027		Heavy Post Blocked Out Corrugated Beam Guide Rail Posts (34 71 13 26-0003)		
			Note: Includes mounting hardware. Excludes triangular mounting brackets.		
34 71	13 26-0028	EA	Standard Post For Heavy Post Blocked Out Corrugated Beam Guide	117.09	12.77
34 71	13 26-0029	EA	Standard Rustic Post For Heavy Post Blocked Out Corrugated Beam Guide	123.35	12.77
34 71	13 26-0030	EA	Extra Long Post for Heavy Post Blocked Out Corrugated Beam Guide	129.61	12.77
34 71	13 26-0031	EA	Extra Long Post (Rustic) For heavy post blocked out corrugated beam guide rail	135.86	12.77
			Note: For heavy post blocked out corrugated beam guide (rustic)		
34 71	13 26-0032	EA	Type A Post 1630mm Post	113.97	12.77
			Note: For heavy post blocked out corrugated beam guide rail		
34 71	13 26-0033	EA	Type A Post 1630mm Post (Rustic)	120.22	12.77
			Note: For heavy post blocked out corrugated beam guide rail		
34 71	13 26-0034	EA	Type B Post 1460mm	107.71	12.77
			Note: For heavy post blocked out corrugated beam guide rail		
34 71	13 26-0035	EA	Type B Post 1460mm (Rustic)	113.97	12.77
			Note: For heavy post blocked out corrugated beam guide rail		
34 71	13 26-0036	EA	Type C Post 1290mm	101.46	12.77
			Note: For heavy post blocked out corrugated beam guide rail		
34 71	13 26-0037	EA	Type C Post 1290mm (Rustic)	107.71	12.77
			Note: For heavy post blocked out corrugated beam guide rail		
34 71	13 26-0038	EA	Breakaway Wood Or Steel Post In Steel Foundation Tube	430.86	12.77
34 71	13 26-0039	EA	Wood, Metal, Plastic Or Composite Offset Block Or Beam	48.29	12.77
			Note: For heavy post blocked out corrugated beam guide rail.		
34 71	13 26-0040		Corrugated Beam Guide Rail Accessories (34 71 13 26-0003)		
34 71	13 26-0041	EA	Triangular Mounting Brackets (Galvanized Or Rustic) For All Post Types A, B And C	102.76	30.16
34 71	13 26-0042		Corrugated Beam Guide Rail Repair for Existing Guide Rail (34 71 13 26-0003)		
			Note: Includes associated hardware.		
34 71	13 26-0043	LF	Removal And Storage Of Corrugated Beam Guide Railing And Post	11.79	
34 71	13 26-0044	EA	Install Stored Post For Corrugated Beam Guide Rail	40.21	
34 71	13 26-0045	LF	Install Stored Corrugated Beam Guide Railing And Post	6.83	
34 71	13 26-0046		Corrugated Thrie Beam Guide Railing (34 71 13 26-0003)		
34 71	13 26-0047		Corrugated Thrie Beam Guide Railing. Straight Sections (34 71 13 26-0046)		
			Note: Add additional length for back-up sections.		
34 71	13 26-0048	LF	Corrugated Thrie Beam Guide Railing	35.32	2.54
34 71	13 26-0049	LF	Corrugated Thrie Beam Guide Railing (Rustic)	37.22	2.54
34 71	13 26-0050		Corrugated Thrie Beam Guide Railing. Shop Curved (34 71 13 26-0046)		
			Note: Add additional length for back-up sections.		



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 71 13 26-0051 LF Shop Curved Corrugated Thrie Beam Guide Railing	42.94	2.54
34 71 13 26-0052 LF Shop Curved Corrugated Thrie Beam Guide Railing (Rustic)	44.85	2.54
34 71 13 26-0053 Corrugated Thrie Beam Guide Rail Posts (34 71 13 26-0046) Note: Includes hardware for mounting.		
34 71 13 26-0054 EA Standard Post For Corrugated Thrie Beam Guide Rail	141.00	2.54
For Installation Without Soil Plate, Deduct	-5.00	
For 32" Soil Plate, Add	7.00	
34 71 13 26-0055 EA Standard Post (Rustic) For Corrugated Thrie Beam Guide Rail	147.25	2.54
For Installation Without Soil Plate, Deduct	-5.00	
For 32" Soil Plate, Add	7.00	
34 71 13 26-0056 Timber Guide Rails (34 71 13 26) Note: Includes drilling and fasteners. Excludes excavation, auguring and concrete.		
34 71 13 26-0057 Timber Guide Rail Posts (34 71 13 26-0056)		
34 71 13 26-0058 EA 6" x 8" Timber Guide Rail Post	72.34	10.05
34 71 13 26-0059 EA 6" x 9" Timber Guide Rail Post	81.79	10.05
34 71 13 26-0060 EA 10" x 10" Timber Guide Rail Post	155.85	10.05
34 71 13 26-0061 EA 10" x 12" Timber Guide Rail Post	164.69	10.05
34 71 13 26-0062 EA 12" x 12" Timber Guide Rail Post	189.86	10.05
34 71 13 26-0063 Timber Guide Rails (34 71 13 26-0056) Note: Excludes posts, spacer blocks and steel backup plates.		
34 71 13 26-0064 LF 4" x 9" Timber Guide Rail	8.96	1.21
34 71 13 26-0065 LF 6" x 10" Timber Guide Rail	12.36	1.21
34 71 13 26-0066 LF 6" x 12" Timber Guide Rail	14.35	1.21
34 71 13 26-0067 Spacer Blocks For Timber Guide Rails (34 71 13 26-0056)		
34 71 13 26-0068 EA 4" x 9" Spacer Block For Timber Guide Rails	11.67	1.61
34 71 13 26-0069 EA 6" x 8" Spacer Block For Timber Guide Rails	13.31	1.61
34 71 13 26-0070 EA 8" x 8" Spacer Block For Timber Guide Rails	15.39	1.61
34 71 13 26-0071 Weathering Steel Backup Plates For Timber Guide Rails (34 71 13 26-0056)		
34 71 13 26-0072 LF 6" High, Weathering Steel Backup Plate For Timber Guide Rails	15.64	1.01
34 71 13 26-0073 Weathering Steel Splice And Bearing Plates For Timber Guide Rails (34 71 13 26-0056)		
34 71 13 26-0074 EA Weathering Steel Splice Plate For Timber Guide Rails	112.34	14.08
34 71 13 26-0075 EA Weathering Steel Bearing Termination Plate For Timber Guide Rails	71.08	10.05
34 71 13 26-0076 Cable Guide Rail (34 71 13 26)		
34 71 13 26-0077 Cable Guide Rail (34 71 13 26-0076)		
34 71 13 26-0078 LF Cable (Each Cable)	8.23	2.17
Note: Includes tensioning. Excludes splices.		
34 71 13 26-0079 EA Cable Splice With Wedges	207.77	15.08
34 71 13 26-0080 Cable Guide Rail Posts (34 71 13 26-0076) Note: Includes hardware for cable mounting.		
34 71 13 26-0081 EA Standard Post for Cable Guide Rail	150.55	42.53
For Installation Without Soil Plate, Deduct	-5.00	
For Installation In Rock, Add	11.34	
34 71 13 26-0082 EA Standard Post (Rustic) for Cable Guide Rail	156.80	42.53
For Installation Without Soil Plate, Deduct	-5.00	
For Installation In Rock, Add	11.34	
34 71 13 26-0083 EA Extra Long Post for Cable Guide Rail	156.80	42.53
For Installation Without Soil Plate, Deduct	-5.00	
For Installation In Rock, Add	11.34	
34 71 13 26-0084 EA Extra Long Post (Rustic) for Cable Guide Rail	163.06	42.53
For Installation Without Soil Plate, Deduct	-5.00	
For Installation In Rock, Add	11.34	
34 71 13 26-0085 EA Slip Impact Post Top for Anchor Unit	97.75	17.01
34 71 13 26-0086 EA Slip Impact Post Base and Keeper Plate	254.14	17.01
Note: For anchor unit.		
34 71 13 26-0087 Cable Guide Rail Accessories For Breakaway Anchor Angle Systems (34 71 13 26-0076)		
34 71 13 26-0088 EA Turnbuckle Cable End Assembly For Use With Breakaway Anchors	481.30	201.46
34 71 13 26-0089 EA Turnbuckle Cable End Assembly	138.54	10.08
34 71 13 26-0090 EA Spring Cable End Assembly (Compensating Device) For Use With Breakaway Anchors	444.55	5.01
34 71 13 26-0091 EA Spring Cable End Assembly (Compensating Device) Without Turnbuckle	457.06	5.01
34 71 13 26-0092 EA Breakaway Anchor Angle	176.07	10.08
34 71 13 26-0093 EA Standard End Post Cap Assembly	81.74	5.01

34 Transportation**34 70 Transportation Construction And Equipment****34 71 Roadway Construction**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 71 13 26-0094 EA Driveway End Post Cap Assembly.....	69.23	5.01
34 71 13 26-0095 EA End Post Ground Support Plates.....	37.96	5.01
34 71 13 26-0096 EA 11" Stud Bolt, Cable Guide Rail.....	33.26	5.01
34 71 13 26-0097 EA 18" Stud Bolt, Cable Guide Rail.....	39.52	5.01
34 71 13 26-0098 EA 25" Stud Bolt, Cable Guide Rail.....	45.78	5.01
34 71 13 26-0099 EA 1-1/4" Diameter Turnbuckle, Cable Guide Rail.....	388.75	10.08
34 71 13 26-0100 EA 1-1/2" Diameter Turnbuckle, Cable Guide Rail.....	413.77	10.08
34 71 13 26-0101 EA 5/8" Diameter Turnbuckle With 12" Take-up And Shackle Ends, Cable Guide Rail.....	276.15	10.08
34 71 13 26-0102 EA 5/8" Eye Bolt 18" Long, Cable Guide Rail.....	169.32	5.01
34 71 13 26-0103 EA 3/4" Eye Bolt 8'-6" Long, Cable Guide Rail.....	176.07	10.08
34 71 13 26-0104 EA 1-5/8" Anchor Rod 10' Long With Plate, Cable Guide Rail.....	189.00	15.08
34 71 13 26-0105 Cable Guide Rail Accessories For Slip Impact Post Systems (34 71 13 26-0076)		
34 71 13 26-0106 EA Turnbuckle Cable End Assembly..... Note: For use with slip impact post.	312.95	14.21
34 71 13 26-0107 EA Spring Cable End Assembly (Compensating Device)..... Note: For use with slip impact post.	613.20	14.21
34 71 13 26-0108 EA Anchor Angle For Slip Impact Post System.....	181.59	14.21
34 71 13 26-0109 EA Cable End Assembly Rod..... Note: Includes cable end, threaded rod and keeper to anchor angle.	150.31	14.21
34 71 13 26-0110 Cable Guide Rail Repair For Existing Guide Rail (34 71 13 26-0076)		
Note: All tasks include associated hardware.		
34 71 13 26-0111 LF Retention Existing Cable (Each Cable).....	1.34	
34 71 13 26-0112 LF Removal And Storage Of Cable Guide Railing.....	8.10	
34 71 13 26-0113 EA Install Stored Post For Cable Guide Railing.....	56.72	
34 71 13 26-0114 LF Install Stored Cable, (Each Cable)..... Note: Includes retensioning. Excludes splices.	3.58	
34 71 13 26-0115 6" x 6" Box Beam Guide Rail (34 71 13 26)		
34 71 13 26-0116 Box Beam Guide Rail, 6" x 6" (34 71 13 26-0115)		
34 71 13 26-0117 Straight Sections, Box Beam Guide Rail (34 71 13 26-0116)		
34 71 13 26-0118 LF Box Beam Guide Railing 6" x 6" x 3/16" Galvanized..... Note: Excludes splices.	42.47	2.54
For Flush Mounting Directly To Structure, Add	1.83	
34 71 13 26-0119 LF Box Beam Guide Railing 6" x 6" x 3/16" (Rustic)..... Note: Excludes splices.	48.19	2.54
For Flush Mounting Directly To Structure, Add	1.83	
34 71 13 26-0120 Shop Curved, Box Beam Guide Rail (34 71 13 26-0116)		
34 71 13 26-0121 LF Shop Curved Box Beam Guide Railing 6" x 6" x 3/16" Galvanized..... Note: Excludes splices.	64.39	2.54
For Shop Curved At <20' Radius, Add	2.44	
For Flush Mounting Directly To Structure, Add	1.83	
34 71 13 26-0122 LF Shop Curved Box Beam Guide Railing 6" x 6" x 3/16" (Rustic)..... Note: Excludes splices.	70.11	2.54
For Shop Curved At <20' Radius, Add	2.44	
For Flush Mounting Directly To Structure, Add	1.83	
34 71 13 26-0123 Box Beam Guide Rail End Treatment Sections (34 71 13 26-0115)		
Note: Includes rail, end cover plate and hardware only. Excludes posts and splice.		
34 71 13 26-0124 EA Box Beam End Piece Guide Railing Section..... Note: Galvanized excludes splices.	665.74	30.16
34 71 13 26-0125 EA Box Beam End Piece Guide Railing Section (Rustic)..... Note: Excludes splices.	734.55	30.16
34 71 13 26-0126 EA Box Beam Guide Railing End Treatment Section At Driveway, Galvanized..... Note: Excludes splices.	628.21	30.16
34 71 13 26-0127 EA Box Beam Guide Railing End Treatment Section At Driveway, (Rustic)..... Note: Excludes splices.	653.23	30.16
34 71 13 26-0128 Splices For Box Beam Guide Rail (34 71 13 26-0115)		
34 71 13 26-0129 EA Splice For Box Beam Guide Rail.....	183.37	44.77
34 71 13 26-0130 EA Splice For Box Beam Guide Rail (Rustic).....	227.16	44.77
34 71 13 26-0131 Box Beam Guide Rail Posts (34 71 13 26-0115)		
Note: Includes hardware for box beam mounting.		
34 71 13 26-0132 EA Standard Post For Box Beam Guide Rail..... For Installation Without Soil Plate, Deduct	156.80 -5.00	42.53
For Installation In Rock, Add	11.34	
34 71 13 26-0133 EA Standard Post (Rustic) for Box Beam Guide Railing..... For Installation Without Soil Plate, Deduct	163.06 -5.00	42.53
For Installation In Rock, Add	11.34	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 71 13 26-0134 EA Extra Long Post For Box Beam Guide Rail..... <i>For Installation Without Soil Plate, Deduct</i> <i>For Installation In Rock, Add</i>	169.32 -5.00 11.34	42.53
34 71 13 26-0135 EA Extra Long Post (Rustic) For Box Beam Guide Rail..... <i>For Installation Without Soil Plate, Deduct</i> <i>For Installation In Rock, Add</i>	175.57 -5.00 11.34	42.53
34 71 13 26-0136 EA Type I End Assembly Post..... <i>For Installation Without Soil Plate, Deduct</i> <i>For Installation In Rock, Add</i>	150.55 -5.00 11.34	42.53
34 71 13 26-0137 EA Type I End Assembly Post (Rustic)..... <i>For Installation Without Soil Plate, Deduct</i> <i>For Installation In Rock, Add</i>	156.80 -5.00 11.34	42.53
34 71 13 26-0138 EA Type II End Assembly Post..... <i>For Installation Without Soil Plate, Deduct</i> <i>For Installation In Rock, Add</i>	144.29 -5.00 11.34	42.53
34 71 13 26-0139 EA Type II End Assembly Post (Rustic)..... <i>For Installation Without Soil Plate, Deduct</i> <i>For Installation In Rock, Add</i>	150.55 -5.00 11.34	42.53
34 71 13 26-0140 Box Beam Guide Rail Accessories (34 71 13 26-0115)		
34 71 13 26-0141 EA Box Beam Guide Rail End Cover Plate.....	87.12	9.05
34 71 13 26-0142 EA Box Beam Guide Rail End Cover Plate (Rustic).....	93.38	9.05
34 71 13 26-0143 Box Beam Guide Railing Repair, And Resetting (34 71 13 26-0115)		
Note: For existing guide rail.		
34 71 13 26-0144 LF Removal And Storage Of Box Beam Guide Rail And Post.....	3.97	
34 71 13 26-0145 LF Reset Box Beam Guide Rail.....	11.59	
34 71 13 26-0146 6" x 8" Box Beam Median Barrier (34 71 13 26)		
34 71 13 26-0147 Box Beam Median Barrier, 6" x 8" (34 71 13 26-0146)		
34 71 13 26-0148 Straight Sections, Box Beam Median Barrier (34 71 13 26-0147)		
34 71 13 26-0149 LF Box Beam Median Barrier Galvanized Excludes Splices..... <i>For Flush Mounting Directly To Structure, Add</i>	72.12 1.83	9.05
34 71 13 26-0150 LF Box Beam Median Barrier (Rustic) Excludes Splices..... <i>For Flush Mounting Directly To Structure, Add</i>	77.84 1.83	9.05
34 71 13 26-0151 Shop Curved, Box Beam Median Barrier (34 71 13 26-0147)		
34 71 13 26-0152 LF Shop Curved Box Beam Median Barrier Galvanized..... Note: Excludes splices. <i>For Shop Curved At <20' Radius, Add</i> <i>For Flush Mounting Directly To Structure, Add</i>	87.15 2.44 1.83	9.05
34 71 13 26-0153 LF Shop Curved Box Beam Median Barrier Rustic..... Note: Excludes splices. <i>For Shop Curved At <20' Radius, Add</i> <i>For Flush Mounting Directly To Structure, Add</i>	105.92 2.44 1.83	9.05
34 71 13 26-0154 Box Beam Median Barrier End Treatment Sections (34 71 13 26-0146)		
Note: Includes rail, end cover plate and hardware. Excludes posts.		
34 71 13 26-0155 EA Box Beam Median Barrier Type A End Treatment Section, Galvanized..... Note: Excludes splices and post.	2,160.76	30.16
34 71 13 26-0156 EA Box Beam Median Barrier Type A End Treatment Section (Rustic)..... Note: Excludes splices and post.	2,210.80	30.16
34 71 13 26-0157 EA Box Beam Median Barrier Type B End Treatment Section, Galvanized..... Note: Excludes splices and post.	2,160.76	30.16
34 71 13 26-0158 EA Box Beam Median Barrier Type B End Treatment Section (Rustic)..... Note: Excludes splices and post.	2,210.80	30.16
34 71 13 26-0159 Splices For Box Beam Median Barrier (34 71 13 26-0146)		
34 71 13 26-0160 EA Splice for Box Beam Median Barrier.....	169.79	24.12
34 71 13 26-0161 EA Splice for Box Beam Median Barrier (Rustic).....	263.62	24.12
34 71 13 26-0162 Box Beam Median Barrier Posts Driven With Soil Plate (34 71 13 26-0146)		
Note: Includes all associated hardware.		
34 71 13 26-0163 EA Standard Post for Box Beam Median Barrier..... <i>For Installation Without Soil Plate, Deduct</i> <i>For Installation In Rock, Add</i>	156.80 -5.00 11.34	42.53
34 71 13 26-0164 EA Standard Post (Rustic) for Box Beam Median Barrier..... <i>For Installation Without Soil Plate, Deduct</i> <i>For Installation In Rock, Add</i>	163.06 -5.00 11.34	42.53
34 71 13 26-0165 EA Extra Long Post for Box Beam Median Barrier..... <i>For Installation Without Soil Plate, Deduct</i> <i>For Installation In Rock, Add</i>	169.32 -5.00 11.34	42.53

34 Transportation**34 70 Transportation Construction And Equipment****34 71 Roadway Construction**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 71 13 26-0166 EA Extra Long Post (Rustic) for Box Beam Median Barrier <i>For Installation Without Soil Plate, Deduct</i> <i>For Installation In Rock, Add</i>	175.57 -5.00 11.34	42.53
34 71 13 26-0167 EA Type B End Treatment or Rub Back Anchor Post for Box Beam Note: For median barrier. <i>For Installation Without Soil Plate, Deduct</i> <i>For Installation In Rock, Add</i>	144.29 -5.00 11.34	42.53
34 71 13 26-0168 EA Type B End Treatment or Rub Back Anchor Post (Rustic)..... Note: For box beam median barrier. <i>For Installation Without Soil Plate, Deduct</i> <i>For Installation In Rock, Add</i>	144.29 -5.00 11.34	42.53
34 71 13 26-0169 EA Type I End Assembly Post for Box Beam Median Barrier to Concrete..... Note: For median barrier transition. <i>For Installation Without Soil Plate, Deduct</i> <i>For Installation In Rock, Add</i>	169.32 -5.00 11.34	42.53
34 71 13 26-0170 EA Type I End Assembly Post (Rustic) for Box Beam Median Barrier..... Note: For Concrete median barrier transition. <i>For Installation Without Soil Plate, Deduct</i> <i>For Installation In Rock, Add</i>	175.57 -5.00 11.34	42.53
34 71 13 26-0171 Box Beam Median Barrier Accessories (34 71 13 26-0146)		
34 71 13 26-0172 EA Box Beam Median Barrier End Cover Plate	110.86	21.23
34 71 13 26-0173 EA Box Beam Median Barrier End Cover Plate (Rustic).....	116.62	21.23
34 71 13 26-0174 Box Beam Median Barrier Repair, And Resetting (34 71 13 26-0146)		
Note: For existing guide rail.		
34 71 13 26-0175 LF Removal And Storage Of Box Beam Median Barrier and Posts	4.11	
34 71 13 26-0176 LF Reset Box Beam Median Barrier.....	12.14	
34 71 13 26-0177 Universal Guide Rail Items (34 71 13 26)		
34 71 13 26-0178 Guide Rail Concrete Anchor Units For All Types Of Guide Rail (34 71 13 26-0177)		
Note: For cast in place or precast. Includes excavation, formwork, concrete, reinforcement, anchor rods and/or imbedded plate. Excludes anchor angle. For anchor angles and other terminal connections, use accessories section for respective guide rail type.		
34 71 13 26-0179 CY Guide Rail Concrete Anchor Unit..... <i>For Each Additional Set Of Anchor Rods, Add</i>	638.32 38.00	
34 71 13 26-0180 EA Reset Existing Anchorage Unit for All Types of Guide Rail..... Note: Includes excavation and backfill.	461.18	
34 71 13 26-0181 EA Removal Of Guide Rail Concrete Anchor Unit.....	464.54	
34 71 13 26-0182 Guide Rail Repair For All Types Of Existing Guide Rail (34 71 13 26-0177)		
Note: All tasks include associated hardware.		
34 71 13 26-0183 EA Straighten And Reset Driven Post For Guide Rail.....	56.72	
34 71 13 26-0184 EA Straighten And Reset Post Mounted On Concrete For Guide Rail..... Note: With base plate for guide rail. Includes new anchor bolts.	65.73	
34 71 13 26-0185 Additional Wood and Steel Posts (34 71 13 26-0177)		
34 71 13 26-0186 LF 4" x 6" Wood Post..... <i>For Installation In Rock, Add</i>	48.66 3.79	14.21
34 71 13 26-0187 LF 6" x 8" Wood Post..... <i>For Installation In Rock, Add</i>	58.04 3.79	14.21
34 71 13 26-0188 LF 6" x 7/8" Galvanized Steel Post..... <i>For Installation In Rock, Add</i>	36.67 3.79	14.21
34 71 13 26-0189 EA Base Plate With Anchor Bolts For Mounting Post On Concrete.....	336.98	14.21
34 71 13 26-0190 Accessories For All Types of Guide Rail (34 71 13 26-0177)		
34 71 13 26-0191 EA Reflector For Guard Rail	40.91	
34 71 13 26-0192 Guide Rail Transitions (34 71 13 26)		
34 71 13 26-0193 Transition Box Beam Guide Rail To Corrugated Beam (34 71 13 26-0192)		
34 71 13 26-0194 EA Box Beam To Corrugated Beam Rail Bolted Section.....	643.94	
34 71 13 26-0195 EA Box Beam To Corrugated Beam Rail Bolted Plate..... Note: For making cable connections.	393.73	
34 71 13 26-0196 Transition Box Beam Median Barrier To Corrugated Beam Median (34 71 13 26-0192)		
34 71 13 26-0197 EA Box Beam Median Barrier To Corrugated Beam Bolted Section.....	656.45	
34 71 13 26-0198 EA Box Beam Median Barrier To Corrugated Beam Harness Plate	393.73	
Note: For making cable connections.		
34 71 13 26-0199 Transition Box Beam Guide Rail To Cable Guide Rail (34 71 13 26-0192)		
34 71 13 26-0200 EA Box Beam to Cable Guide Rail U-bolt And Plate.....	89.41	16.08



Transportation	34	34
Transportation Construction And Equipment	34 70	
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MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
34 71 13 26-0201 Transition Box Beam Median Barrier To Concrete Median Barrier <small>(34 71 13 26-0192)</small>		
34 71 13 26-0202 EA Box Beam Median Barrier To Concrete Barrier End Connection	894.15	
34 71 13 26-0203 Transition Thrie Beam To Concrete Median Barrier <small>(34 71 13 26-0192)</small>		
34 71 13 26-0204 EA Thrie Beam Terminal Connector At Concrete Median Barrier	581.38	
34 71 13 26-0205 EA Thrie Beam Transition Section To Corrugated Beam Guide Rail.....	737.77	
34 71 13 26-0206 Resilient Guard Fence And Light Shield <small>(34 71 13 26)</small>		
34 71 13 26-0207 LF Resilient Guard Fence And Light Shield, Up To 6' High.....	59.83	6.22
34 71 13 26-0208 Individual Concrete Guard Rail Posts <small>(34 71 13 26)</small>		
34 71 13 26-0209 EA 6'-5" Concrete Guard Rail Posts, Round.....	69.57	6.22
34 71 13 26-0210 EA 6'-5" Concrete Posts, Square.....	77.89	7.00
34 71 13 26-0211 EA 6'-5" Concrete Posts, Triangular.....	75.95	7.00
34 71 16 Impact Attenuating Devices <small>(34 71)</small>		
34 71 16 00-0001 Guard Rail Energy Absorbing Terminals <small>(34 71 16)</small>		
Note: Crushable foam cartridges surrounded by steel guardrail for narrow hazards. QuadGuard System as manufactured by Energy Absorption Systems, Inc.		
34 71 16 00-0002 24" Wide Guard Rail Energy Absorbing Terminals <small>(34 71 16 00-0001)</small>		
34 71 16 00-0003 EA 24" Wide, 3 Cartridge Bays, Energy Absorbing Crash Attenuator.....	25,957.50	2,896.56
34 71 16 00-0004 EA 24" Wide, 5 Cartridge, Bays Energy Absorbing Crash Attenuator.....	35,948.33	3,862.09
34 71 16 00-0005 EA 24" Wide, 7 Cartridge, Bays Energy Absorbing Crash Attenuator.....	48,933.26	5,068.99
34 71 16 00-0006 EA 24" Wide, 9 Cartridge, Bays Energy Absorbing Crash Attenuator.....	54,796.22	6,275.90
34 71 16 00-0007 30" Wide Guard Rail Energy Absorbing Terminals <small>(34 71 16 00-0001)</small>		
34 71 16 00-0008 EA 30" Wide, 3 Cartridge Bays, Energy Absorbing Crash Attenuator.....	28,039.52	3,258.64
34 71 16 00-0009 EA 30" Wide, 5 Cartridge Bays, Energy Absorbing Crash Attenuator.....	38,936.25	4,344.85
34 71 16 00-0010 EA 30" Wide, 7 Cartridge Bays, Energy Absorbing Crash Attenuator.....	53,330.29	5,793.13
34 71 16 00-0011 EA 30" Wide, 9 Cartridge Bays, Energy Absorbing Crash Attenuator.....	61,307.52	7,000.04
34 71 16 00-0012 36" Wide Guard Rail Energy Absorbing Terminals <small>(34 71 16 00-0001)</small>		
34 71 16 00-0013 EA 36" Wide, 3 Cartridge Bays, Energy Absorbing Crash Attenuator.....	30,142.94	3,620.71
34 71 16 00-0014 EA 36" Wide, 5 Cartridge Bays, Energy Absorbing Crash Attenuator.....	41,944.95	4,827.62
34 71 16 00-0015 EA 36" Wide, 7 Cartridge Bays, Energy Absorbing Crash Attenuator.....	57,224.51	6,396.58
34 71 16 00-0016 EA 36" Wide, 9 Cartridge Bays, Energy Absorbing Crash Attenuator.....	67,796.66	7,724.18
34 71 16 00-0017 69" Wide Guard Rail Energy Absorbing Terminals <small>(34 71 16 00-0001)</small>		
34 71 16 00-0018 EA 69" Wide, 3 Cartridge Bays, Energy Absorbing Crash Attenuator.....	32,680.09	3,982.78
34 71 16 00-0019 EA 69" Wide, 5 Cartridge Bays, Energy Absorbing Crash Attenuator.....	45,122.69	5,310.37
34 71 16 00-0020 EA 69" Wide, 7 Cartridge Bays, Energy Absorbing Crash Attenuator.....	61,793.61	7,000.04
34 71 16 00-0021 EA 69" Wide, 9 Cartridge Bays, Energy Absorbing Crash Attenuator.....	72,889.91	8,448.32
34 71 16 00-0022 90" Wide Guard Rail Energy Absorbing Terminals <small>(34 71 16 00-0001)</small>		
34 71 16 00-0023 EA 90" Wide, 3 Cartridge Bays, Energy Absorbing Crash Attenuator.....	35,280.07	4,344.85
34 71 16 00-0024 EA 90" Wide, 5 Cartridge Bays, Energy Absorbing Crash Attenuator.....	48,374.37	5,793.13
34 71 16 00-0025 EA 90" Wide, 7 Cartridge Bays, Energy Absorbing Crash Attenuator.....	66,993.57	7,724.18
34 71 16 00-0026 EA 90" Wide, 9 Cartridge Bays, Energy Absorbing Crash Attenuator.....	78,113.58	9,172.46
34 71 19 Vehicle Delineators <small>(34 71)</small>		
34 71 19 16 Flexible Vehicle Delineators <small>(34 71 19)</small>		
34 71 19 16-0001 EA 2' High, 3" Diameter Flexible Fixed Stanchion Delineator.....	65.00	7.78
34 71 19 16-0002 EA 3' High, 3" Diameter Flexible Fixed Stanchion Delineator.....	65.77	7.78
34 71 19 16-0003 EA 3-1/2' High, 3" Diameter Flexible Fixed Stanchion Delineator.....	66.55	7.78
34 71 19 16-0004 EA 4' High, 3" Diameter Flexible Fixed Stanchion Delineator.....	67.33	7.78

END OF SECTION 34

34	34	Transportation
	34 70	Transportation Construction And Equipment
	34 71	Roadway Construction



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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	MINOR CSI UOM DESCRIPTION		TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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35 Waterway and Marine Construction

35 05 Common Work Results for Waterway and Marine Construction⁽³⁵⁾

35 05 70 Common Work Results for Dams^(35 05)

35 05 70 00-0001 Rubber Dam Repair^(35 05 70)

35 05 70 00-0002	EA	Class A Rubber Dam Repair (Bullet And Similar Holes)	28.91	
35 05 70 00-0003	SF	Class B Rubber Dam Repair (Minor Surface Rubber Damage)	56.54	
35 05 70 00-0004	SF	Class C Rubber Dam Repair (Major Surface Rubber Damage)	83.73	
35 05 70 00-0005	SF	Class D Rubber Dam Repair (Serious Surface Rubber Damage), Per Layer Of Material	92.79	

35 20 Waterway and Marine Construction and Equipment⁽³⁵⁾

35 22 Hydraulic Gates^(35 20)

35 22 26 Sluice Gates^(35 22)

35 22 26 00-0001 Heavy Duty Cast Iron Sluice Gates Self Contained^(35 22 26)

Note: Includes crank operated geared gate lift, anchor bolts, and grouting.

35 22 26 00-0002	EA	18" x 18" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	7,817.03	998.26
		<i>For Electric Motor Operated Valve, Add</i>	1,049.66	
35 22 26 00-0003	EA	24" x 24" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	11,210.98	1,497.44
		<i>For Electric Motor Operated Valve, Add</i>	1,149.49	
35 22 26 00-0004	EA	30" x 30" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	13,555.82	1,711.36
		<i>For Electric Motor Operated Valve, Add</i>	1,192.27	
35 22 26 00-0005	EA	36" x 36" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	15,441.90	1,871.80
		<i>For Electric Motor Operated Valve, Add</i>	1,224.36	
35 22 26 00-0006	EA	42" x 42" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	17,338.47	2,139.20
		<i>For Electric Motor Operated Valve, Add</i>	1,277.84	
35 22 26 00-0007	EA	48" x 48" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	24,378.53	3,422.72
		<i>For Electric Motor Operated Valve, Add</i>	1,534.54	
35 22 26 00-0008	EA	54" x 54" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	32,422.48	4,278.40
		<i>For Electric Motor Operated Valve, Add</i>	1,705.68	
35 22 26 00-0009	EA	60" x 60" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	37,965.27	5,668.88
		<i>For Electric Motor Operated Valve, Add</i>	1,983.78	
35 22 26 00-0010	EA	66" x 66" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	47,355.33	7,487.20
		<i>For Electric Motor Operated Valve, Add</i>	2,347.44	
35 22 26 00-0011	EA	72" x 72" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	49,870.27	8,556.80
		<i>For Electric Motor Operated Valve, Add</i>	2,561.36	
35 22 26 00-0012	EA	78" x 78" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	55,717.03	8,556.80
		<i>For Electric Motor Operated Valve, Add</i>	2,961.36	
35 22 26 00-0013	EA	84" x 84" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	64,559.78	9,626.40
		<i>For Electric Motor Operated Valve, Add</i>	3,175.28	
35 22 26 00-0014	EA	90" x 90" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	77,242.15	10,923.77
		<i>For Electric Motor Operated Valve, Add</i>	3,434.76	
35 22 26 00-0015	EA	96" x 96" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	86,917.42	11,443.95
		<i>For Electric Motor Operated Valve, Add</i>	3,538.79	
35 22 26 00-0016	EA	108" x 108" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	107,597.20	13,524.68
		<i>For Electric Motor Operated Valve, Add</i>	3,954.93	
35 22 26 00-0017	EA	120" x 120" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	132,918.50	16,645.75
		<i>For Electric Motor Operated Valve, Add</i>	4,579.15	
35 22 26 00-0018	EA	132" x 132" Heavy Duty Sluice Gates Self Contained With Crank Operated Gate	161,902.93	18,726.48
		<i>For Electric Motor Operated Valve, Add</i>	4,995.30	

35 22 59 Hydraulic Closure Gates^(35 22)

35 22 59 00-0001 Steel Slide Gates Self Contained^(35 22 59)

Note: Includes anchors and bolts.

35 22 59 00-0002	EA	12" x 12" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	3,218.55	374.36
		<i>For Electric Motor Operated Valve, Add</i>	924.87	
35 22 59 00-0003	EA	18" x 18" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	4,311.67	427.84
		<i>For Electric Motor Operated Valve, Add</i>	935.57	
35 22 59 00-0004	EA	24" x 24" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	4,916.27	499.18
		<i>For Electric Motor Operated Valve, Add</i>	949.83	
35 22 59 00-0005	EA	30" x 30" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	5,942.16	598.98
		<i>For Electric Motor Operated Valve, Add</i>	969.80	
35 22 59 00-0006	EA	36" x 36" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	7,609.83	748.72
		<i>For Electric Motor Operated Valve, Add</i>	999.74	
35 22 59 00-0007	EA	42" x 42" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	8,881.91	998.26
		<i>For Electric Motor Operated Valve, Add</i>	1,049.66	
35 22 59 00-0008	EA	48" x 48" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	12,136.81	1,497.44
		<i>For Electric Motor Operated Valve, Add</i>	1,149.49	
35 22 59 00-0009	EA	54" x 54" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	18,549.26	1,871.80
		<i>For Electric Motor Operated Valve, Add</i>	1,224.36	
35 22 59 00-0010	EA	60" x 60" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	24,024.86	2,994.88
		<i>For Electric Motor Operated Valve, Add</i>	1,448.98	

35	Waterway and Marine Construction
35 20	Waterway and Marine Construction and Equipment
35 22	Hydraulic Gates



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
35 22 59 00-0011 EA 72" x 72" Steel Slide Gates Self Contained Including Anchor Bolts And Grouting	30,252.44	4,991.50
<i>For Electric Motor Operated Valve, Add</i>	1,848.29	
35 22 59 00-0012 SF Over 36 SF Steel Slide Gates Self Contained Including Anchor	839.18	137.98
<i>For Electric Motor Operated Valve, Add</i>	1,577.60	
35 22 59 00-0013 Stainless Steel, Slide Gates, Frame Assembly Only (35 22 59)		
35 22 59 00-0014 EA 24" x 24" Stainless Steel Slide Gate, Frame Assembly Only	11,217.28	488.80
35 22 59 00-0015 EA 30" x 30" Stainless Steel Slide Gate, Frame Assembly Only	13,873.11	610.74
35 22 59 00-0016 EA 36" x 36" Stainless Steel Slide Gate, Frame Assembly Only	17,673.44	744.44
35 22 59 00-0017 EA 48" x 48" Stainless Steel Slide Gate, Frame Assembly Only	27,132.95	1,425.78
35 22 59 00-0018 EA 60" x 60" Stainless Steel Slide Gate, Frame Assembly Only	40,521.73	3,111.47
35 22 59 00-0019 EA 72" x 72" Stainless Steel Slide Gate, Frame Assembly Only	53,597.25	4,753.31
35 22 59 00-0020 EA 84" x 84" Stainless Steel Slide Gate, Frame Assembly Only	80,300.88	5,942.69
35 22 59 00-0021 Day Start Up And Training, Stainless Steel Slide Gate, Frame Assembly.....	2,052.19	
35 22 59 00-0022 Aluminum Flap Gates (35 22 59)		
35 22 59 00-0023 EA 18" Diameter Aluminum Flap Gates	3,248.24	374.36
<i>For Electric Motor Operated Valve, Add</i>	924.87	
35 22 59 00-0024 EA 20" Diameter Aluminum Flap Gates	3,621.36	401.10
<i>For Electric Motor Operated Valve, Add</i>	930.22	
35 22 59 00-0025 EA 24" Diameter Aluminum Flap Gates	3,991.06	427.84
<i>For Electric Motor Operated Valve, Add</i>	935.57	
35 22 59 00-0026 EA 30" Diameter Aluminum Flap Gates	5,442.43	499.18
<i>For Electric Motor Operated Valve, Add</i>	949.83	
35 22 59 00-0027 EA 36" Diameter Aluminum Flap Gates	6,754.74	598.98
<i>For Electric Motor Operated Valve, Add</i>	969.80	
35 22 59 00-0028 EA 42" Diameter Aluminum Flap Gates	9,599.80	748.72
<i>For Electric Motor Operated Valve, Add</i>	999.74	
35 22 59 00-0029 EA 48" Diameter Aluminum Flap Gates	12,126.58	998.26
<i>For Electric Motor Operated Valve, Add</i>	1,049.66	
35 22 59 00-0030 EA 54" Diameter Aluminum Flap Gates	15,608.36	1,497.44
<i>For Electric Motor Operated Valve, Add</i>	1,149.49	
35 22 59 00-0031 EA 60" Diameter Aluminum Flap Gates	20,570.47	2,139.20
<i>For Electric Motor Operated Valve, Add</i>	1,277.84	
35 22 59 00-0032 EA 66" Diameter Aluminum Flap Gates	26,511.89	2,994.88
<i>For Electric Motor Operated Valve, Add</i>	1,448.98	
35 22 59 00-0033 EA 72" Diameter Aluminum Flap Gates	32,850.27	4,278.40
<i>For Electric Motor Operated Valve, Add</i>	1,705.68	
35 22 59 00-0034 Stainless Steel Flap Gates (35 22 59)		
35 22 59 00-0035 EA 12" x 12" Stainless Steel Flap Gate	4,598.17	320.88
<i>For Electric Motor Operated Valve, Add</i>	914.18	
35 22 59 00-0036 EA 18" x 18" Stainless Steel Flap Gate	5,871.63	374.36
<i>For Electric Motor Operated Valve, Add</i>	924.87	
35 22 59 00-0037 EA 24" x 24" Stainless Steel Flap Gate	7,539.34	427.84
<i>For Electric Motor Operated Valve, Add</i>	935.57	
35 22 59 00-0038 EA 30" x 30" Stainless Steel Flap Gate	9,784.90	499.50
<i>For Electric Motor Operated Valve, Add</i>	949.83	
35 22 59 00-0039 EA 36" x 36" Stainless Steel Flap Gate	14,448.62	598.98
<i>For Electric Motor Operated Valve, Add</i>	969.80	
35 22 59 00-0040 EA 48" x 48" Stainless Steel Flap Gate	21,227.77	997.94
<i>For Electric Motor Operated Valve, Add</i>	1,049.66	
35 22 59 00-0041 EA 60" x 60" Stainless Steel Flap Gate	32,841.64	2,139.20
<i>For Electric Motor Operated Valve, Add</i>	1,277.84	
35 22 59 00-0042 EA 72" x 72" Stainless Steel Flap Gate	48,228.87	4,278.40
<i>For Electric Motor Operated Valve, Add</i>	1,705.68	
35 22 59 00-0043 EA 84" x 84" Stainless Steel Flap Gate	70,597.99	8,556.80
<i>For Electric Motor Operated Valve, Add</i>	2,561.36	
35 22 59 00-0044 Cast Iron Flap Gates (35 22 59)		
35 22 59 00-0045 EA 12" x 12" Cast Iron Flap Gate	8,068.57	401.10
<i>For Electric Motor Operated Valve, Add</i>	930.22	
35 22 59 00-0046 EA 18" x 18" Cast Iron Flap Gate	11,288.66	468.49
<i>For Electric Motor Operated Valve, Add</i>	943.59	
35 22 59 00-0047 EA 24" x 24" Cast Iron Flap Gate	14,381.83	534.80
<i>For Electric Motor Operated Valve, Add</i>	956.96	
35 22 59 00-0048 EA 30" x 30" Cast Iron Flap Gate	20,106.41	623.58
<i>For Electric Motor Operated Valve, Add</i>	974.79	
35 22 59 00-0049 EA 36" x 36" Cast Iron Flap Gate	22,726.81	748.72
<i>For Electric Motor Operated Valve, Add</i>	999.74	
35 22 59 00-0050 EA 48" x 48" Cast Iron Flap Gate	28,404.65	1,248.22
<i>For Electric Motor Operated Valve, Add</i>	1,099.58	
35 22 59 00-0051 EA 60" x 60" Cast Iron Flap Gate	48,739.22	2,353.12
<i>For Electric Motor Operated Valve, Add</i>	1,320.62	
35 22 59 00-0052 EA 72" x 72" Cast Iron Flap Gate	78,054.94	4,599.28
<i>For Electric Motor Operated Valve, Add</i>	1,769.86	
35 22 59 00-0053 EA 84" x 84" Cast Iron Flap Gate	92,496.18	8,984.64
<i>For Electric Motor Operated Valve, Add</i>	2,646.93	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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35 22 59 00-0054 Steel Knife Gates Including Handwheel Operator (35 22 59)

Note: ANSI 150 PSI. for hub, flange, or spigot ends.

35 22 59 00-0055 EA 6" Diameter Knife Gates Including Handwheel Operator For Hub	1,350.14	129.23
<i>For Electric Motor Operated Valve, Add</i>	<i>875.85</i>	
35 22 59 00-0056 EA 8" Diameter Knife Gates Including Handwheel Operator For Hub	1,809.77	150.74
<i>For Electric Motor Operated Valve, Add</i>	<i>880.15</i>	
35 22 59 00-0057 EA 10" Diameter Knife Gates Including Handwheel Operator For Hub	2,546.60	226.15
<i>For Electric Motor Operated Valve, Add</i>	<i>895.23</i>	
35 22 59 00-0058 EA 12" Diameter Knife Gates Including Handwheel Operator For Hub	3,185.76	301.57
<i>For Electric Motor Operated Valve, Add</i>	<i>910.31</i>	
35 22 59 00-0059 EA 14" Diameter Knife Gates Including Handwheel Operator For Hub	3,892.46	323.07
<i>For Electric Motor Operated Valve, Add</i>	<i>914.62</i>	
35 22 59 00-0060 EA 16" Diameter Knife Gates Including Handwheel Operator For Hub	5,022.36	347.91
<i>For Electric Motor Operated Valve, Add</i>	<i>919.59</i>	
35 22 59 00-0061 EA 18" Diameter Knife Gates Including Handwheel Operator For Hub	6,653.23	361.84
<i>For Electric Motor Operated Valve, Add</i>	<i>922.37</i>	
35 22 59 00-0062 EA 20" Diameter Knife Gates Including Handwheel Operator For Hub	8,309.00	411.23
<i>For Electric Motor Operated Valve, Add</i>	<i>932.24</i>	
35 22 59 00-0063 EA 24" Diameter Knife Gates Including Handwheel Operator For Hub	10,634.92	452.30
<i>For Electric Motor Operated Valve, Add</i>	<i>940.46</i>	
35 22 59 00-0064 EA 30" Diameter Knife Gates Including Handwheel Operator For Hub	19,305.03	603.05
<i>For Electric Motor Operated Valve, Add</i>	<i>970.61</i>	
35 22 59 00-0065 EA 36" Diameter Knife Gates Including Handwheel Operator For Hub	25,708.37	904.61
<i>For Electric Motor Operated Valve, Add</i>	<i>1,030.92</i>	

35 22 59 00-0066 Steel Hollow Jet Flow Gate Valve (35 22 59)

35 22 59 00-0067 EA 6" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub	1,278.44	149.75
<i>For Electric Motor Operated Valve, Add</i>	<i>879.95</i>	
35 22 59 00-0068 EA 8" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub	1,960.89	174.88
<i>For Electric Motor Operated Valve, Add</i>	<i>884.98</i>	
35 22 59 00-0069 EA 10" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub	2,371.62	262.06
<i>For Electric Motor Operated Valve, Add</i>	<i>902.41</i>	
35 22 59 00-0070 EA 12" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub	3,028.52	349.22
<i>For Electric Motor Operated Valve, Add</i>	<i>919.86</i>	
35 22 59 00-0071 EA 14" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub	4,509.17	374.36
<i>For Electric Motor Operated Valve, Add</i>	<i>924.87</i>	
35 22 59 00-0072 EA 16" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub	5,423.05	403.23
<i>For Electric Motor Operated Valve, Add</i>	<i>930.65</i>	
35 22 59 00-0073 EA 18" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub	9,031.42	419.28
<i>For Electric Motor Operated Valve, Add</i>	<i>933.86</i>	
35 22 59 00-0074 EA 20" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub	11,342.16	476.50
<i>For Electric Motor Operated Valve, Add</i>	<i>945.31</i>	
35 22 59 00-0075 EA 24" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub	16,259.92	524.10
<i>For Electric Motor Operated Valve, Add</i>	<i>954.83</i>	
35 22 59 00-0076 EA 30" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub	19,936.47	698.99
<i>For Electric Motor Operated Valve, Add</i>	<i>989.79</i>	
35 22 59 00-0077 EA 36" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub	28,466.21	1,048.21
<i>For Electric Motor Operated Valve, Add</i>	<i>1,059.61</i>	
35 22 59 00-0078 EA 42" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub	33,937.24	1,283.52
<i>For Electric Motor Operated Valve, Add</i>	<i>1,506.76</i>	
35 22 59 00-0079 EA 48" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub	40,235.08	1,497.44
<i>For Electric Motor Operated Valve, Add</i>	<i>1,549.49</i>	
35 22 59 00-0080 EA 54" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub	52,955.12	1,871.80
<i>For Electric Motor Operated Valve, Add</i>	<i>1,624.36</i>	
35 22 59 00-0081 EA 60" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub	59,029.89	2,246.16
<i>For Electric Motor Operated Valve, Add</i>	<i>1,699.41</i>	
35 22 59 00-0082 EA 66" Diameter Jet Flow Gate Valve Including Handwheel Operator For Hub	75,406.75	3,101.84
<i>For Electric Motor Operated Valve, Add</i>	<i>1,870.83</i>	

35 22 59 00-0083 Steel Dish Head Valve (35 22 59)

35 22 59 00-0084 EA 12" Diameter Dish Head Valve	1,681.73	374.36
35 22 59 00-0085 EA 18" Diameter Dish Head Valve	2,391.19	427.84
35 22 59 00-0086 EA 20" Diameter Dish Head Valve	2,746.00	467.95
35 22 59 00-0087 EA 24" Diameter Dish Head Valve	3,218.94	499.18
35 22 59 00-0088 EA 30" Diameter Dish Head Valve	4,781.96	598.98
35 22 59 00-0089 EA 36" Diameter Dish Head Valve	5,897.41	748.72
35 22 59 00-0090 EA 42" Diameter Dish Head Valve	9,804.98	998.26
35 22 59 00-0091 EA 48" Diameter Dish Head Valve	12,896.52	1,497.44
35 22 59 00-0092 EA 54" Diameter Dish Head Valve	18,241.45	1,871.80
35 22 59 00-0093 EA 60" Diameter Dish Head Valve	23,658.48	2,994.88
35 22 59 00-0094 EA 66" Diameter Dish Head Valve	32,620.02	3,743.60
35 22 59 00-0095 EA 72" Diameter Dish Head Valve	39,880.67	4,991.50

35 22 63 Through-Levee Access Gates (35 22)

35 22 63 00-0001 Cast Iron Canal Gates (35 22 63)

35 22 63 00-0002 EA 12" Diameter Cast Iron Canal Gates With Fabricated Frame	1,592.51	374.36
<i>For Electric Motor Operated Valve, Add</i>	<i>924.87</i>	

35	Waterway and Marine Construction
35 20	Waterway and Marine Construction and Equipment
35 22	Hydraulic Gates



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
35 22 63 00-0003 EA 18" Diameter Cast Iron Canal Gates With Fabricated Frame..... <i>For Electric Motor Operated Valve, Add</i>	2,244.36 935.57	427.84
35 22 63 00-0004 EA 20" Diameter Cast Iron Canal Gates With Fabricated Frame..... <i>For Electric Motor Operated Valve, Add</i>	2,552.49 943.59	467.95
35 22 63 00-0005 EA 24" Diameter Cast Iron Canal Gates With Fabricated Frame..... <i>For Electric Motor Operated Valve, Add</i>	3,006.59 949.83	499.18
35 22 63 00-0006 EA 30" Diameter Cast Iron Canal Gates With Fabricated Frame..... <i>For Electric Motor Operated Valve, Add</i>	4,439.23 969.80	598.98
35 22 63 00-0007 EA 36" Diameter Cast Iron Canal Gates With Fabricated Frame..... <i>For Electric Motor Operated Valve, Add</i>	5,476.65 999.74	748.72
35 22 63 00-0008 EA 42" Diameter Cast Iron Canal Gates With Fabricated Frame..... <i>For Electric Motor Operated Valve, Add</i>	9,058.29 1,049.66	998.26
35 22 63 00-0009 EA 48" Diameter Cast Iron Canal Gates With Fabricated Frame..... <i>For Electric Motor Operated Valve, Add</i>	11,949.67 1,149.49	1,497.44
35 22 63 00-0010 EA 54" Diameter Cast Iron Canal Gates With Fabricated Frame..... <i>For Electric Motor Operated Valve, Add</i>	16,855.08 1,224.36	1,871.80
35 22 63 00-0011 EA 60" Diameter Cast Iron Canal Gates With Fabricated Frame..... <i>For Electric Motor Operated Valve, Add</i>	21,968.88 1,448.98	2,994.88
35 22 63 00-0012 EA 66" Diameter Cast Iron Canal Gates With Fabricated Frame..... <i>For Electric Motor Operated Valve, Add</i>	30,216.66 1,598.72	3,743.60
35 22 63 00-0013 EA 72" Diameter Cast Iron Canal Gates With Fabricated Frame..... <i>For Electric Motor Operated Valve, Add</i>	35,595.52 1,705.68	4,278.40

35 24 Dredging (35 20)

35 24 23 Clamshell Dredging (35 24)

35 24 23 00-0001 Dredging, Barge Mounted (35 24 23)

See CSI section 01 74 19 00-0037 for hauling material from shore or barge, 31 23 16 33-0019 for loading.

35 24 23 00-0002 EA Dredge Excavation Mobilization And Demobilization	18,423.11	
<i>For Inlet Rivers And Canals, Deduct</i>	-4,605.78	
35 24 23 00-0003 CY Barge Mounted Clamshell Excavation Into Scows, Dumping Up To 10 Miles..... Note: Includes tugboat to move scows or barge.	20.47	
35 24 23 00-0004 CY Barge Mounted Dragline Or Clamshell, Hopper Dumped, Pumped 1,000' To Shore..... Note: Includes tugboat to move barge.	18.42	
35 24 23 00-0005 CY Hydraulic Dredge Excavation Into Scows, Dumping Up To 10 Miles	20.39	
Note: Includes tugboat to move scows or barge.		
35 24 23 00-0006 CY Hydraulic Dredge Excavation, Pumped 1,000' To Shore	17.10	
Note: Includes tugboat to move barge.		

35 24 26 Backhoe/Dipper Dredging (35 24)

35 24 26 00-0001 Dredging, Shoreline Excavators (35 24 26)

35 24 26 00-0002 CY Back Hoe, 1 CY Bucket, Dredging From Shore	12.11	
35 24 26 00-0003 CY Hydraulic Excavator, 2 CY Bucket, Dredging From Shore	7.96	

END OF SECTION 35



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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40 Process Interconnections

40 05 Common Work Results For Process Interconnections ⁽⁴⁰⁾

40 05 19 Ductile Iron Process Pipe ^(40 05)

40 05 19 00-0001	Flanged End, Cement Lined, Bituminous Seal Coat, Ductile Iron Piping ^(40 05 19) <small>Note: 350 PSI rating for 2" - 24" sizes, 250 PSI rating for 30" - 48" sizes. Pipe barrels conform to ANSI/AWWA C151/A21.51. The bolt holes are aligned per ANSI/AWWA C115/A21.15. Flanged fittings conform to ANSI/AWWA C110/A21.10. Interiors shall be cement lined in accordance with ANSI/AWWA C104/A21.04. Exterior shall be bituminous coating, in accordance with ANSI/AWWA C104/A21.04. See CSI section 40 05 19 00-2059 for bolts, 40 05 19 00-2074 for gaskets.</small>		
40 05 19 00-0002	Flanged End (FxF), Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe ^(40 05 19 00-0001)		
40 05 19 00-0003	4" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe ^(40 05 19 00-0002)		
40 05 19 00-0004	EA 4" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	510.55	174.24
	For Class 52 Rating, Deduct	-27.12	
	For Class 54 Rating, Add	18.49	
	For Class 55 Rating, Add	41.10	
40 05 19 00-0005	EA 4" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	541.56	177.28
	For Class 52 Rating, Deduct	-30.02	
	For Class 54 Rating, Add	20.47	
	For Class 55 Rating, Add	45.50	
40 05 19 00-0006	EA 4" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	572.55	180.33
	For Class 52 Rating, Deduct	-32.93	
	For Class 54 Rating, Add	22.45	
	For Class 55 Rating, Add	49.90	
40 05 19 00-0007	EA 4" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	603.54	183.38
	For Class 52 Rating, Deduct	-35.83	
	For Class 54 Rating, Add	24.43	
	For Class 55 Rating, Add	54.29	
40 05 19 00-0008	EA 4" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	634.54	186.43
	For Class 52 Rating, Deduct	-38.73	
	For Class 54 Rating, Add	26.41	
	For Class 55 Rating, Add	58.69	
40 05 19 00-0009	EA 4" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	665.54	189.47
	For Class 52 Rating, Deduct	-41.63	
	For Class 54 Rating, Add	28.38	
	For Class 55 Rating, Add	63.09	
40 05 19 00-0010	EA 4" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	696.53	192.52
	For Class 52 Rating, Deduct	-44.53	
	For Class 54 Rating, Add	30.36	
	For Class 55 Rating, Add	67.49	
40 05 19 00-0011	EA 4" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	727.52	195.57
	For Class 52 Rating, Deduct	-47.43	
	For Class 54 Rating, Add	32.34	
	For Class 55 Rating, Add	71.88	
40 05 19 00-0012	EA 4" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	758.52	198.61
	For Class 52 Rating, Deduct	-50.34	
	For Class 54 Rating, Add	34.32	
	For Class 55 Rating, Add	76.28	
40 05 19 00-0013	EA 4" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	789.52	201.65
	For Class 52 Rating, Deduct	-53.24	
	For Class 54 Rating, Add	36.30	
	For Class 55 Rating, Add	80.68	
40 05 19 00-0014	EA 4" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	820.51	204.70
	For Class 52 Rating, Deduct	-56.14	
	For Class 54 Rating, Add	38.28	
	For Class 55 Rating, Add	85.08	
40 05 19 00-0015	EA 4" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	851.51	207.74
	For Class 52 Rating, Deduct	-59.04	
	For Class 54 Rating, Add	40.26	
	For Class 55 Rating, Add	89.47	
40 05 19 00-0016	EA 4" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	882.51	210.79
	For Class 52 Rating, Deduct	-61.94	
	For Class 54 Rating, Add	42.23	
	For Class 55 Rating, Add	93.87	
40 05 19 00-0017	EA 4" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	913.51	213.84
	For Class 52 Rating, Deduct	-64.85	
	For Class 54 Rating, Add	44.21	
	For Class 55 Rating, Add	98.27	
40 05 19 00-0018	EA 4" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	944.50	216.88
	For Class 52 Rating, Deduct	-67.75	
	For Class 54 Rating, Add	46.19	
	For Class 55 Rating, Add	102.67	
40 05 19 00-0019	EA 4" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	975.50	219.93
	For Class 52 Rating, Deduct	-70.65	
	For Class 54 Rating, Add	48.17	
	For Class 55 Rating, Add	107.07	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0020	EA		4" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,006.49	222.98
			<i>For Class 52 Rating, Deduct</i>	-73.55	
			<i>For Class 54 Rating, Add</i>	50.15	
			<i>For Class 55 Rating, Add</i>	111.46	
40 05 19 00-0021	EA		4" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,037.49	226.02
			<i>For Class 52 Rating, Deduct</i>	-76.45	
			<i>For Class 54 Rating, Add</i>	52.13	
			<i>For Class 55 Rating, Add</i>	115.86	
40 05 19 00-0022	EA		4" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,068.49	229.07
			<i>For Class 52 Rating, Deduct</i>	-79.36	
			<i>For Class 54 Rating, Add</i>	54.11	
			<i>For Class 55 Rating, Add</i>	120.26	
40 05 19 00-0023	EA		4" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,099.48	232.12
			<i>For Class 52 Rating, Deduct</i>	-82.26	
			<i>For Class 54 Rating, Add</i>	56.08	
			<i>For Class 55 Rating, Add</i>	124.66	
40 05 19 00-0024	EA		4" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,130.47	235.16
			<i>For Class 52 Rating, Deduct</i>	-85.16	
			<i>For Class 54 Rating, Add</i>	58.06	
			<i>For Class 55 Rating, Add</i>	129.05	
40 05 19 00-0025	EA		4" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,161.48	238.21
			<i>For Class 52 Rating, Deduct</i>	-88.06	
			<i>For Class 54 Rating, Add</i>	60.04	
			<i>For Class 55 Rating, Add</i>	133.45	
40 05 19 00-0026	EA		4" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,192.47	241.26
			<i>For Class 52 Rating, Deduct</i>	-90.96	
			<i>For Class 54 Rating, Add</i>	62.02	
			<i>For Class 55 Rating, Add</i>	137.85	
40 05 19 00-0027	EA		4" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,223.46	244.31
			<i>For Class 52 Rating, Deduct</i>	-93.86	
			<i>For Class 54 Rating, Add</i>	64.00	
			<i>For Class 55 Rating, Add</i>	142.25	
40 05 19 00-0028	EA		4" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,254.45	247.34
			<i>For Class 52 Rating, Deduct</i>	-96.77	
			<i>For Class 54 Rating, Add</i>	65.98	
			<i>For Class 55 Rating, Add</i>	146.64	
40 05 19 00-0029	EA		4" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,285.46	250.39
			<i>For Class 52 Rating, Deduct</i>	-99.67	
			<i>For Class 54 Rating, Add</i>	67.96	
			<i>For Class 55 Rating, Add</i>	151.04	
40 05 19 00-0030	EA		4" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,316.45	253.44
			<i>For Class 52 Rating, Deduct</i>	-102.57	
			<i>For Class 54 Rating, Add</i>	69.93	
			<i>For Class 55 Rating, Add</i>	155.44	
40 05 19 00-0031	EA		4" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,347.44	256.48
			<i>For Class 52 Rating, Deduct</i>	-105.47	
			<i>For Class 54 Rating, Add</i>	71.91	
			<i>For Class 55 Rating, Add</i>	159.84	
40 05 19 00-0032	EA		4" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,378.45	259.53
			<i>For Class 52 Rating, Deduct</i>	-108.37	
			<i>For Class 54 Rating, Add</i>	73.89	
			<i>For Class 55 Rating, Add</i>	164.24	
40 05 19 00-0033	EA		4" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,409.45	262.58
			<i>For Class 52 Rating, Deduct</i>	-111.28	
			<i>For Class 54 Rating, Add</i>	75.87	
			<i>For Class 55 Rating, Add</i>	168.63	
40 05 19 00-0034	EA		4" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,440.44	265.62
			<i>For Class 52 Rating, Deduct</i>	-114.18	
			<i>For Class 54 Rating, Add</i>	77.85	
			<i>For Class 55 Rating, Add</i>	173.03	
40 05 19 00-0035	EA		4" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,471.43	268.67
			<i>For Class 52 Rating, Deduct</i>	-117.08	
			<i>For Class 54 Rating, Add</i>	79.83	
			<i>For Class 55 Rating, Add</i>	177.43	
40 05 19 00-0036	EA		4" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,502.43	271.72
			<i>For Class 52 Rating, Deduct</i>	-119.98	
			<i>For Class 54 Rating, Add</i>	81.81	
			<i>For Class 55 Rating, Add</i>	181.83	
40 05 19 00-0037	EA		4" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,533.43	274.76
			<i>For Class 52 Rating, Deduct</i>	-122.88	
			<i>For Class 54 Rating, Add</i>	83.78	
			<i>For Class 55 Rating, Add</i>	186.22	
40 05 19 00-0038	EA		4" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,564.42	277.81
			<i>For Class 52 Rating, Deduct</i>	-125.79	
			<i>For Class 54 Rating, Add</i>	85.76	
			<i>For Class 55 Rating, Add</i>	190.62	
40 05 19 00-0039	EA		4" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,595.42	280.86
			<i>For Class 52 Rating, Deduct</i>	-128.69	
			<i>For Class 54 Rating, Add</i>	87.74	
			<i>For Class 55 Rating, Add</i>	195.02	
40 05 19 00-0040	EA		4" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,626.41	283.90
			<i>For Class 52 Rating, Deduct</i>	-131.59	
			<i>For Class 54 Rating, Add</i>	89.72	
			<i>For Class 55 Rating, Add</i>	199.42	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0041 EA 4" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,657.41	286.95
For Class 52 Rating, Deduct	-134.49	
For Class 54 Rating, Add	91.70	
For Class 55 Rating, Add	203.81	
40 05 19 00-0042 EA 4" Flanged (FxF), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,688.40	290.00
For Class 52 Rating, Deduct	-137.39	
For Class 54 Rating, Add	93.68	
For Class 55 Rating, Add	208.21	
40 05 19 00-0043 6" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0002)</small>		
40 05 19 00-0044 EA 6" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	645.83	219.32
For Class 52 Rating, Deduct	-34.49	
For Class 54 Rating, Add	23.51	
For Class 55 Rating, Add	52.26	
40 05 19 00-0045 EA 6" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	682.91	222.37
For Class 52 Rating, Deduct	-38.06	
For Class 54 Rating, Add	25.95	
For Class 55 Rating, Add	57.68	
40 05 19 00-0046 EA 6" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	720.00	225.41
For Class 52 Rating, Deduct	-41.63	
For Class 54 Rating, Add	28.38	
For Class 55 Rating, Add	63.09	
40 05 19 00-0047 EA 6" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	757.08	228.46
For Class 52 Rating, Deduct	-45.20	
For Class 54 Rating, Add	30.82	
For Class 55 Rating, Add	68.50	
40 05 19 00-0048 EA 6" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	794.17	231.51
For Class 52 Rating, Deduct	-48.77	
For Class 54 Rating, Add	33.26	
For Class 55 Rating, Add	73.91	
40 05 19 00-0049 EA 6" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	831.25	234.56
For Class 52 Rating, Deduct	-52.35	
For Class 54 Rating, Add	35.69	
For Class 55 Rating, Add	79.33	
40 05 19 00-0050 EA 6" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	868.33	237.60
For Class 52 Rating, Deduct	-55.92	
For Class 54 Rating, Add	38.12	
For Class 55 Rating, Add	84.74	
40 05 19 00-0051 EA 6" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	905.41	240.65
For Class 52 Rating, Deduct	-59.49	
For Class 54 Rating, Add	40.56	
For Class 55 Rating, Add	90.15	
40 05 19 00-0052 EA 6" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	942.50	243.70
For Class 52 Rating, Deduct	-63.06	
For Class 54 Rating, Add	43.00	
For Class 55 Rating, Add	95.56	
40 05 19 00-0053 EA 6" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	979.59	246.73
For Class 52 Rating, Deduct	-66.63	
For Class 54 Rating, Add	45.43	
For Class 55 Rating, Add	100.98	
40 05 19 00-0054 EA 6" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,016.67	249.78
For Class 52 Rating, Deduct	-70.20	
For Class 54 Rating, Add	47.87	
For Class 55 Rating, Add	106.39	
40 05 19 00-0055 EA 6" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,053.75	252.83
For Class 52 Rating, Deduct	-73.77	
For Class 54 Rating, Add	50.30	
For Class 55 Rating, Add	111.80	
40 05 19 00-0056 EA 6" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,090.84	255.87
For Class 52 Rating, Deduct	-77.35	
For Class 54 Rating, Add	52.74	
For Class 55 Rating, Add	117.22	
40 05 19 00-0057 EA 6" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,127.92	258.92
For Class 52 Rating, Deduct	-80.92	
For Class 54 Rating, Add	55.17	
For Class 55 Rating, Add	122.63	
40 05 19 00-0058 EA 6" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,165.00	261.97
For Class 52 Rating, Deduct	-84.49	
For Class 54 Rating, Add	57.61	
For Class 55 Rating, Add	128.04	
40 05 19 00-0059 EA 6" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,202.08	265.01
For Class 52 Rating, Deduct	-88.06	
For Class 54 Rating, Add	60.04	
For Class 55 Rating, Add	133.45	
40 05 19 00-0060 EA 6" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,239.18	268.06
For Class 52 Rating, Deduct	-91.63	
For Class 54 Rating, Add	62.48	
For Class 55 Rating, Add	138.86	
40 05 19 00-0061 EA 6" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,276.26	271.11
For Class 52 Rating, Deduct	-95.20	
For Class 54 Rating, Add	64.91	
For Class 55 Rating, Add	144.28	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0062	EA		6" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,313.34	274.15
			<i>For Class 52 Rating, Deduct</i>	-98.78	
			<i>For Class 54 Rating, Add</i>	67.35	
			<i>For Class 55 Rating, Add</i>	149.69	
40 05 19 00-0063	EA		6" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,350.41	277.20
			<i>For Class 52 Rating, Deduct</i>	-102.35	
			<i>For Class 54 Rating, Add</i>	69.78	
			<i>For Class 55 Rating, Add</i>	155.10	
40 05 19 00-0064	EA		6" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,387.51	280.25
			<i>For Class 52 Rating, Deduct</i>	-105.92	
			<i>For Class 54 Rating, Add</i>	72.22	
			<i>For Class 55 Rating, Add</i>	160.51	
40 05 19 00-0065	EA		6" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,424.59	283.29
			<i>For Class 52 Rating, Deduct</i>	-109.49	
			<i>For Class 54 Rating, Add</i>	74.65	
			<i>For Class 55 Rating, Add</i>	165.93	
40 05 19 00-0066	EA		6" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,461.67	286.34
			<i>For Class 52 Rating, Deduct</i>	-113.06	
			<i>For Class 54 Rating, Add</i>	77.09	
			<i>For Class 55 Rating, Add</i>	171.34	
40 05 19 00-0067	EA		6" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,498.76	289.39
			<i>For Class 52 Rating, Deduct</i>	-116.63	
			<i>For Class 54 Rating, Add</i>	79.52	
			<i>For Class 55 Rating, Add</i>	176.75	
40 05 19 00-0068	EA		6" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,535.85	292.42
			<i>For Class 52 Rating, Deduct</i>	-120.20	
			<i>For Class 54 Rating, Add</i>	81.96	
			<i>For Class 55 Rating, Add</i>	182.16	
40 05 19 00-0069	EA		6" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,572.93	295.47
			<i>For Class 52 Rating, Deduct</i>	-123.78	
			<i>For Class 54 Rating, Add</i>	84.39	
			<i>For Class 55 Rating, Add</i>	187.58	
40 05 19 00-0070	EA		6" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,610.00	298.52
			<i>For Class 52 Rating, Deduct</i>	-127.35	
			<i>For Class 54 Rating, Add</i>	86.83	
			<i>For Class 55 Rating, Add</i>	192.99	
40 05 19 00-0071	EA		6" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,647.09	301.57
			<i>For Class 52 Rating, Deduct</i>	-130.92	
			<i>For Class 54 Rating, Add</i>	89.26	
			<i>For Class 55 Rating, Add</i>	198.40	
40 05 19 00-0072	EA		6" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,684.18	304.61
			<i>For Class 52 Rating, Deduct</i>	-134.49	
			<i>For Class 54 Rating, Add</i>	91.70	
			<i>For Class 55 Rating, Add</i>	203.81	
40 05 19 00-0073	EA		6" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,721.26	307.66
			<i>For Class 52 Rating, Deduct</i>	-138.06	
			<i>For Class 54 Rating, Add</i>	94.13	
			<i>For Class 55 Rating, Add</i>	209.23	
40 05 19 00-0074	EA		6" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,758.35	310.71
			<i>For Class 52 Rating, Deduct</i>	-141.63	
			<i>For Class 54 Rating, Add</i>	96.57	
			<i>For Class 55 Rating, Add</i>	214.64	
40 05 19 00-0075	EA		6" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,795.43	313.75
			<i>For Class 52 Rating, Deduct</i>	-145.21	
			<i>For Class 54 Rating, Add</i>	99.00	
			<i>For Class 55 Rating, Add</i>	220.05	
40 05 19 00-0076	EA		6" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,832.52	316.80
			<i>For Class 52 Rating, Deduct</i>	-148.78	
			<i>For Class 54 Rating, Add</i>	101.44	
			<i>For Class 55 Rating, Add</i>	225.47	
40 05 19 00-0077	EA		6" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,869.60	319.85
			<i>For Class 52 Rating, Deduct</i>	-152.35	
			<i>For Class 54 Rating, Add</i>	103.87	
			<i>For Class 55 Rating, Add</i>	230.88	
40 05 19 00-0078	EA		6" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,906.68	322.89
			<i>For Class 52 Rating, Deduct</i>	-155.92	
			<i>For Class 54 Rating, Add</i>	106.31	
			<i>For Class 55 Rating, Add</i>	236.29	
40 05 19 00-0079	EA		6" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,943.76	325.94
			<i>For Class 52 Rating, Deduct</i>	-159.49	
			<i>For Class 54 Rating, Add</i>	108.74	
			<i>For Class 55 Rating, Add</i>	241.70	
40 05 19 00-0080	EA		6" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,980.85	328.99
			<i>For Class 52 Rating, Deduct</i>	-163.06	
			<i>For Class 54 Rating, Add</i>	111.18	
			<i>For Class 55 Rating, Add</i>	247.11	
40 05 19 00-0081	EA		6" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,017.94	332.03
			<i>For Class 52 Rating, Deduct</i>	-166.63	
			<i>For Class 54 Rating, Add</i>	113.61	
			<i>For Class 55 Rating, Add</i>	252.53	
40 05 19 00-0082	EA		6" Flanged (FxF), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,055.02	335.07
			<i>For Class 52 Rating, Deduct</i>	-170.21	
			<i>For Class 54 Rating, Add</i>	116.05	
			<i>For Class 55 Rating, Add</i>	257.94	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0083 8" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0002)</small>		
40 05 19 00-0084 EA 8" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	886.28	280.25
For Class 52 Rating, Deduct	-50.78	
For Class 54 Rating, Add	34.62	
For Class 55 Rating, Add	76.96	
40 05 19 00-0085 EA 8" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	935.54	283.29
For Class 52 Rating, Deduct	-55.69	
For Class 54 Rating, Add	37.97	
For Class 55 Rating, Add	84.40	
40 05 19 00-0086 EA 8" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	984.79	286.34
For Class 52 Rating, Deduct	-60.60	
For Class 54 Rating, Add	41.32	
For Class 55 Rating, Add	91.84	
40 05 19 00-0087 EA 8" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,034.05	289.39
For Class 52 Rating, Deduct	-65.51	
For Class 54 Rating, Add	44.67	
For Class 55 Rating, Add	99.28	
40 05 19 00-0088 EA 8" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,083.32	292.42
For Class 52 Rating, Deduct	-70.43	
For Class 54 Rating, Add	48.02	
For Class 55 Rating, Add	106.73	
40 05 19 00-0089 EA 8" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,132.57	295.47
For Class 52 Rating, Deduct	-75.34	
For Class 54 Rating, Add	51.37	
For Class 55 Rating, Add	114.17	
40 05 19 00-0090 EA 8" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,181.83	298.52
For Class 52 Rating, Deduct	-80.25	
For Class 54 Rating, Add	54.71	
For Class 55 Rating, Add	121.61	
40 05 19 00-0091 EA 8" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,231.09	301.57
For Class 52 Rating, Deduct	-85.16	
For Class 54 Rating, Add	58.06	
For Class 55 Rating, Add	129.05	
40 05 19 00-0092 EA 8" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,280.35	304.61
For Class 52 Rating, Deduct	-90.07	
For Class 54 Rating, Add	61.41	
For Class 55 Rating, Add	136.50	
40 05 19 00-0093 EA 8" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,329.61	307.66
For Class 52 Rating, Deduct	-94.98	
For Class 54 Rating, Add	64.76	
For Class 55 Rating, Add	143.94	
40 05 19 00-0094 EA 8" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,378.87	310.71
For Class 52 Rating, Deduct	-99.89	
For Class 54 Rating, Add	68.11	
For Class 55 Rating, Add	151.38	
40 05 19 00-0095 EA 8" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,428.13	313.75
For Class 52 Rating, Deduct	-104.80	
For Class 54 Rating, Add	71.46	
For Class 55 Rating, Add	158.82	
40 05 19 00-0096 EA 8" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,477.39	316.80
For Class 52 Rating, Deduct	-109.71	
For Class 54 Rating, Add	74.80	
For Class 55 Rating, Add	166.26	
40 05 19 00-0097 EA 8" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,526.66	319.85
For Class 52 Rating, Deduct	-114.62	
For Class 54 Rating, Add	78.15	
For Class 55 Rating, Add	173.71	
40 05 19 00-0098 EA 8" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,575.91	322.89
For Class 52 Rating, Deduct	-119.53	
For Class 54 Rating, Add	81.50	
For Class 55 Rating, Add	181.15	
40 05 19 00-0099 EA 8" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,625.16	325.94
For Class 52 Rating, Deduct	-124.45	
For Class 54 Rating, Add	84.85	
For Class 55 Rating, Add	188.59	
40 05 19 00-0100 EA 8" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,674.43	328.99
For Class 52 Rating, Deduct	-129.36	
For Class 54 Rating, Add	88.20	
For Class 55 Rating, Add	196.03	
40 05 19 00-0101 EA 8" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,723.69	332.03
For Class 52 Rating, Deduct	-134.27	
For Class 54 Rating, Add	91.55	
For Class 55 Rating, Add	203.48	
40 05 19 00-0102 EA 8" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,772.95	335.07
For Class 52 Rating, Deduct	-139.18	
For Class 54 Rating, Add	94.89	
For Class 55 Rating, Add	210.92	
40 05 19 00-0103 EA 8" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,822.20	338.12
For Class 52 Rating, Deduct	-144.09	
For Class 54 Rating, Add	98.24	
For Class 55 Rating, Add	218.36	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0104	EA	8" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,871.47	341.16
		<i>For Class 52 Rating, Deduct</i>	-149.00	
		<i>For Class 54 Rating, Add</i>	101.59	
		<i>For Class 55 Rating, Add</i>	225.80	
40 05 19 00-0105	EA	8" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,920.73	344.21
		<i>For Class 52 Rating, Deduct</i>	-153.91	
		<i>For Class 54 Rating, Add</i>	104.94	
		<i>For Class 55 Rating, Add</i>	233.24	
40 05 19 00-0106	EA	8" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,969.98	347.26
		<i>For Class 52 Rating, Deduct</i>	-158.82	
		<i>For Class 54 Rating, Add</i>	108.29	
		<i>For Class 55 Rating, Add</i>	240.69	
40 05 19 00-0107	EA	8" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,019.24	350.30
		<i>For Class 52 Rating, Deduct</i>	-163.73	
		<i>For Class 54 Rating, Add</i>	111.64	
		<i>For Class 55 Rating, Add</i>	248.13	
40 05 19 00-0108	EA	8" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,068.50	353.35
		<i>For Class 52 Rating, Deduct</i>	-168.64	
		<i>For Class 54 Rating, Add</i>	114.98	
		<i>For Class 55 Rating, Add</i>	255.57	
40 05 19 00-0109	EA	8" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,117.77	356.40
		<i>For Class 52 Rating, Deduct</i>	-173.55	
		<i>For Class 54 Rating, Add</i>	118.33	
		<i>For Class 55 Rating, Add</i>	263.01	
40 05 19 00-0110	EA	8" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,167.02	359.44
		<i>For Class 52 Rating, Deduct</i>	-178.47	
		<i>For Class 54 Rating, Add</i>	121.68	
		<i>For Class 55 Rating, Add</i>	270.46	
40 05 19 00-0111	EA	8" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,216.28	362.49
		<i>For Class 52 Rating, Deduct</i>	-183.38	
		<i>For Class 54 Rating, Add</i>	125.03	
		<i>For Class 55 Rating, Add</i>	277.90	
40 05 19 00-0112	EA	8" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,265.54	365.54
		<i>For Class 52 Rating, Deduct</i>	-188.29	
		<i>For Class 54 Rating, Add</i>	128.38	
		<i>For Class 55 Rating, Add</i>	285.34	
40 05 19 00-0113	EA	8" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,314.80	368.59
		<i>For Class 52 Rating, Deduct</i>	-193.20	
		<i>For Class 54 Rating, Add</i>	131.73	
		<i>For Class 55 Rating, Add</i>	292.78	
40 05 19 00-0114	EA	8" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,364.06	371.63
		<i>For Class 52 Rating, Deduct</i>	-198.11	
		<i>For Class 54 Rating, Add</i>	135.07	
		<i>For Class 55 Rating, Add</i>	300.23	
40 05 19 00-0115	EA	8" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,413.32	374.68
		<i>For Class 52 Rating, Deduct</i>	-203.02	
		<i>For Class 54 Rating, Add</i>	138.42	
		<i>For Class 55 Rating, Add</i>	307.67	
40 05 19 00-0116	EA	8" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,462.57	377.73
		<i>For Class 52 Rating, Deduct</i>	-207.93	
		<i>For Class 54 Rating, Add</i>	141.77	
		<i>For Class 55 Rating, Add</i>	315.11	
40 05 19 00-0117	EA	8" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,511.84	380.76
		<i>For Class 52 Rating, Deduct</i>	-212.84	
		<i>For Class 54 Rating, Add</i>	145.12	
		<i>For Class 55 Rating, Add</i>	322.55	
40 05 19 00-0118	EA	8" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,561.10	383.81
		<i>For Class 52 Rating, Deduct</i>	-217.75	
		<i>For Class 54 Rating, Add</i>	148.47	
		<i>For Class 55 Rating, Add</i>	329.99	
40 05 19 00-0119	EA	8" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,610.36	386.86
		<i>For Class 52 Rating, Deduct</i>	-222.66	
		<i>For Class 54 Rating, Add</i>	151.82	
		<i>For Class 55 Rating, Add</i>	337.44	
40 05 19 00-0120	EA	8" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,659.61	389.90
		<i>For Class 52 Rating, Deduct</i>	-227.57	
		<i>For Class 54 Rating, Add</i>	155.16	
		<i>For Class 55 Rating, Add</i>	344.88	
40 05 19 00-0121	EA	8" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,708.88	392.95
		<i>For Class 52 Rating, Deduct</i>	-232.49	
		<i>For Class 54 Rating, Add</i>	158.51	
		<i>For Class 55 Rating, Add</i>	352.32	
40 05 19 00-0122	EA	8" Flanged (FxF), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,758.14	396.00
		<i>For Class 52 Rating, Deduct</i>	-237.40	
		<i>For Class 54 Rating, Add</i>	161.86	
		<i>For Class 55 Rating, Add</i>	359.76	
40 05 19 00-0123		10" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0002)</small>		
40 05 19 00-0124	EA	10" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,109.48	341.16
		<i>For Class 52 Rating, Deduct</i>	-65.18	
		<i>For Class 54 Rating, Add</i>	44.44	
		<i>For Class 55 Rating, Add</i>	98.78	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0125 EA 10" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,172.94	344.21
<i>For Class 52 Rating, Deduct</i>	-71.65	
<i>For Class 54 Rating, Add</i>	48.86	
<i>For Class 55 Rating, Add</i>	108.59	
40 05 19 00-0126 EA 10" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,236.40	347.26
<i>For Class 52 Rating, Deduct</i>	-78.13	
<i>For Class 54 Rating, Add</i>	53.27	
<i>For Class 55 Rating, Add</i>	118.40	
40 05 19 00-0127 EA 10" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,299.86	350.30
<i>For Class 52 Rating, Deduct</i>	-84.60	
<i>For Class 54 Rating, Add</i>	57.68	
<i>For Class 55 Rating, Add</i>	128.21	
40 05 19 00-0128 EA 10" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,363.33	353.35
<i>For Class 52 Rating, Deduct</i>	-91.07	
<i>For Class 54 Rating, Add</i>	62.10	
<i>For Class 55 Rating, Add</i>	138.02	
40 05 19 00-0129 EA 10" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,426.80	356.40
<i>For Class 52 Rating, Deduct</i>	-97.55	
<i>For Class 54 Rating, Add</i>	66.51	
<i>For Class 55 Rating, Add</i>	147.83	
40 05 19 00-0130 EA 10" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,490.25	359.44
<i>For Class 52 Rating, Deduct</i>	-104.02	
<i>For Class 54 Rating, Add</i>	70.92	
<i>For Class 55 Rating, Add</i>	157.64	
40 05 19 00-0131 EA 10" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,553.72	362.49
<i>For Class 52 Rating, Deduct</i>	-110.49	
<i>For Class 54 Rating, Add</i>	75.34	
<i>For Class 55 Rating, Add</i>	167.45	
40 05 19 00-0132 EA 10" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,617.18	365.54
<i>For Class 52 Rating, Deduct</i>	-116.97	
<i>For Class 54 Rating, Add</i>	79.75	
<i>For Class 55 Rating, Add</i>	177.26	
40 05 19 00-0133 EA 10" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,680.65	368.59
<i>For Class 52 Rating, Deduct</i>	-123.44	
<i>For Class 54 Rating, Add</i>	84.16	
<i>For Class 55 Rating, Add</i>	187.07	
40 05 19 00-0134 EA 10" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,744.11	371.63
<i>For Class 52 Rating, Deduct</i>	-129.91	
<i>For Class 54 Rating, Add</i>	88.58	
<i>For Class 55 Rating, Add</i>	196.88	
40 05 19 00-0135 EA 10" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,807.58	374.68
<i>For Class 52 Rating, Deduct</i>	-136.39	
<i>For Class 54 Rating, Add</i>	92.99	
<i>For Class 55 Rating, Add</i>	206.69	
40 05 19 00-0136 EA 10" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,871.04	377.73
<i>For Class 52 Rating, Deduct</i>	-142.86	
<i>For Class 54 Rating, Add</i>	97.41	
<i>For Class 55 Rating, Add</i>	216.50	
40 05 19 00-0137 EA 10" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,934.51	380.76
<i>For Class 52 Rating, Deduct</i>	-149.33	
<i>For Class 54 Rating, Add</i>	101.82	
<i>For Class 55 Rating, Add</i>	226.31	
40 05 19 00-0138 EA 10" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,997.98	383.81
<i>For Class 52 Rating, Deduct</i>	-155.81	
<i>For Class 54 Rating, Add</i>	106.23	
<i>For Class 55 Rating, Add</i>	236.12	
40 05 19 00-0139 EA 10" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,061.44	386.86
<i>For Class 52 Rating, Deduct</i>	-162.28	
<i>For Class 54 Rating, Add</i>	110.65	
<i>For Class 55 Rating, Add</i>	245.93	
40 05 19 00-0140 EA 10" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,124.90	389.90
<i>For Class 52 Rating, Deduct</i>	-168.76	
<i>For Class 54 Rating, Add</i>	115.06	
<i>For Class 55 Rating, Add</i>	255.74	
40 05 19 00-0141 EA 10" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,188.36	392.95
<i>For Class 52 Rating, Deduct</i>	-175.23	
<i>For Class 54 Rating, Add</i>	119.47	
<i>For Class 55 Rating, Add</i>	265.55	
40 05 19 00-0142 EA 10" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,251.83	396.00
<i>For Class 52 Rating, Deduct</i>	-181.70	
<i>For Class 54 Rating, Add</i>	123.89	
<i>For Class 55 Rating, Add</i>	275.36	
40 05 19 00-0143 EA 10" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,315.29	399.04
<i>For Class 52 Rating, Deduct</i>	-188.17	
<i>For Class 54 Rating, Add</i>	128.30	
<i>For Class 55 Rating, Add</i>	285.17	
40 05 19 00-0144 EA 10" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,378.75	402.09
<i>For Class 52 Rating, Deduct</i>	-194.65	
<i>For Class 54 Rating, Add</i>	132.71	
<i>For Class 55 Rating, Add</i>	294.98	
40 05 19 00-0145 EA 10" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,442.23	405.14
<i>For Class 52 Rating, Deduct</i>	-201.12	
<i>For Class 54 Rating, Add</i>	137.13	
<i>For Class 55 Rating, Add</i>	304.79	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0146	EA		10" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,505.69	408.18
			<i>For Class 52 Rating, Deduct</i>	-207.60	
			<i>For Class 54 Rating, Add</i>	141.54	
			<i>For Class 55 Rating, Add</i>	314.60	
40 05 19 00-0147	EA		10" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,569.15	411.23
			<i>For Class 52 Rating, Deduct</i>	-214.07	
			<i>For Class 54 Rating, Add</i>	145.96	
			<i>For Class 55 Rating, Add</i>	324.41	
40 05 19 00-0148	EA		10" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,632.62	414.28
			<i>For Class 52 Rating, Deduct</i>	-220.54	
			<i>For Class 54 Rating, Add</i>	150.37	
			<i>For Class 55 Rating, Add</i>	334.22	
40 05 19 00-0149	EA		10" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,696.09	417.32
			<i>For Class 52 Rating, Deduct</i>	-227.02	
			<i>For Class 54 Rating, Add</i>	154.78	
			<i>For Class 55 Rating, Add</i>	344.03	
40 05 19 00-0150	EA		10" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,759.55	420.37
			<i>For Class 52 Rating, Deduct</i>	-233.49	
			<i>For Class 54 Rating, Add</i>	159.20	
			<i>For Class 55 Rating, Add</i>	353.84	
40 05 19 00-0151	EA		10" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,823.01	423.42
			<i>For Class 52 Rating, Deduct</i>	-239.96	
			<i>For Class 54 Rating, Add</i>	163.61	
			<i>For Class 55 Rating, Add</i>	363.65	
40 05 19 00-0152	EA		10" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,886.48	426.45
			<i>For Class 52 Rating, Deduct</i>	-246.44	
			<i>For Class 54 Rating, Add</i>	168.02	
			<i>For Class 55 Rating, Add</i>	373.46	
40 05 19 00-0153	EA		10" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,949.94	429.50
			<i>For Class 52 Rating, Deduct</i>	-252.91	
			<i>For Class 54 Rating, Add</i>	172.44	
			<i>For Class 55 Rating, Add</i>	383.27	
40 05 19 00-0154	EA		10" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,013.40	432.55
			<i>For Class 52 Rating, Deduct</i>	-259.38	
			<i>For Class 54 Rating, Add</i>	176.85	
			<i>For Class 55 Rating, Add</i>	393.08	
40 05 19 00-0155	EA		10" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,075.86	435.60
			<i>For Class 52 Rating, Deduct</i>	-265.74	
			<i>For Class 54 Rating, Add</i>	181.19	
			<i>For Class 55 Rating, Add</i>	402.72	
40 05 19 00-0156	EA		10" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,140.33	438.64
			<i>For Class 52 Rating, Deduct</i>	-272.33	
			<i>For Class 54 Rating, Add</i>	185.68	
			<i>For Class 55 Rating, Add</i>	412.70	
40 05 19 00-0157	EA		10" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,203.80	441.69
			<i>For Class 52 Rating, Deduct</i>	-278.80	
			<i>For Class 54 Rating, Add</i>	190.09	
			<i>For Class 55 Rating, Add</i>	422.51	
40 05 19 00-0158	EA		10" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,267.26	444.74
			<i>For Class 52 Rating, Deduct</i>	-285.28	
			<i>For Class 54 Rating, Add</i>	194.51	
			<i>For Class 55 Rating, Add</i>	432.32	
40 05 19 00-0159	EA		10" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,330.73	447.78
			<i>For Class 52 Rating, Deduct</i>	-291.75	
			<i>For Class 54 Rating, Add</i>	198.92	
			<i>For Class 55 Rating, Add</i>	442.13	
40 05 19 00-0160	EA		10" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,394.19	450.83
			<i>For Class 52 Rating, Deduct</i>	-298.22	
			<i>For Class 54 Rating, Add</i>	203.33	
			<i>For Class 55 Rating, Add</i>	451.94	
40 05 19 00-0161	EA		10" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,457.66	453.88
			<i>For Class 52 Rating, Deduct</i>	-304.70	
			<i>For Class 54 Rating, Add</i>	207.75	
			<i>For Class 55 Rating, Add</i>	461.75	
40 05 19 00-0162	EA		10" Flanged (FxF), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,521.13	456.92
			<i>For Class 52 Rating, Deduct</i>	-311.17	
			<i>For Class 54 Rating, Add</i>	212.16	
			<i>For Class 55 Rating, Add</i>	471.56	
40 05 19 00-0163			12" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0002)		
40 05 19 00-0164	EA		12" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,439.60	426.45
			<i>For Class 52 Rating, Deduct</i>	-87.28	
			<i>For Class 54 Rating, Add</i>	59.51	
			<i>For Class 55 Rating, Add</i>	132.27	
40 05 19 00-0165	EA		12" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,518.29	429.50
			<i>For Class 52 Rating, Deduct</i>	-95.43	
			<i>For Class 54 Rating, Add</i>	65.06	
			<i>For Class 55 Rating, Add</i>	144.62	
40 05 19 00-0166	EA		12" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,596.97	432.55
			<i>For Class 52 Rating, Deduct</i>	-103.57	
			<i>For Class 54 Rating, Add</i>	70.62	
			<i>For Class 55 Rating, Add</i>	156.96	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0167 EA 12" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,675.65	435.60
<i>For Class 52 Rating, Deduct</i>	-111.72	
<i>For Class 54 Rating, Add</i>	76.17	
<i>For Class 55 Rating, Add</i>	169.31	
40 05 19 00-0168 EA 12" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,754.33	438.64
<i>For Class 52 Rating, Deduct</i>	-119.87	
<i>For Class 54 Rating, Add</i>	81.73	
<i>For Class 55 Rating, Add</i>	181.66	
40 05 19 00-0169 EA 12" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,833.02	441.69
<i>For Class 52 Rating, Deduct</i>	-128.02	
<i>For Class 54 Rating, Add</i>	87.28	
<i>For Class 55 Rating, Add</i>	194.00	
40 05 19 00-0170 EA 12" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,911.70	444.74
<i>For Class 52 Rating, Deduct</i>	-136.16	
<i>For Class 54 Rating, Add</i>	92.84	
<i>For Class 55 Rating, Add</i>	206.35	
40 05 19 00-0171 EA 12" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,990.39	447.78
<i>For Class 52 Rating, Deduct</i>	-144.31	
<i>For Class 54 Rating, Add</i>	98.39	
<i>For Class 55 Rating, Add</i>	218.70	
40 05 19 00-0172 EA 12" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,069.07	450.83
<i>For Class 52 Rating, Deduct</i>	-152.46	
<i>For Class 54 Rating, Add</i>	103.95	
<i>For Class 55 Rating, Add</i>	231.05	
40 05 19 00-0173 EA 12" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,147.76	453.88
<i>For Class 52 Rating, Deduct</i>	-160.61	
<i>For Class 54 Rating, Add</i>	109.51	
<i>For Class 55 Rating, Add</i>	243.39	
40 05 19 00-0174 EA 12" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,226.45	456.92
<i>For Class 52 Rating, Deduct</i>	-168.76	
<i>For Class 54 Rating, Add</i>	115.06	
<i>For Class 55 Rating, Add</i>	255.74	
40 05 19 00-0175 EA 12" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,305.12	459.97
<i>For Class 52 Rating, Deduct</i>	-176.90	
<i>For Class 54 Rating, Add</i>	120.62	
<i>For Class 55 Rating, Add</i>	268.09	
40 05 19 00-0176 EA 12" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,383.80	463.02
<i>For Class 52 Rating, Deduct</i>	-185.05	
<i>For Class 54 Rating, Add</i>	126.17	
<i>For Class 55 Rating, Add</i>	280.43	
40 05 19 00-0177 EA 12" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,462.49	466.06
<i>For Class 52 Rating, Deduct</i>	-193.20	
<i>For Class 54 Rating, Add</i>	131.73	
<i>For Class 55 Rating, Add</i>	292.78	
40 05 19 00-0178 EA 12" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,541.18	469.11
<i>For Class 52 Rating, Deduct</i>	-201.35	
<i>For Class 54 Rating, Add</i>	137.28	
<i>For Class 55 Rating, Add</i>	305.13	
40 05 19 00-0179 EA 12" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,619.86	472.15
<i>For Class 52 Rating, Deduct</i>	-209.49	
<i>For Class 54 Rating, Add</i>	142.84	
<i>For Class 55 Rating, Add</i>	317.48	
40 05 19 00-0180 EA 12" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,698.54	475.19
<i>For Class 52 Rating, Deduct</i>	-217.64	
<i>For Class 54 Rating, Add</i>	148.39	
<i>For Class 55 Rating, Add</i>	329.82	
40 05 19 00-0181 EA 12" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,777.24	478.24
<i>For Class 52 Rating, Deduct</i>	-225.79	
<i>For Class 54 Rating, Add</i>	153.95	
<i>For Class 55 Rating, Add</i>	342.17	
40 05 19 00-0182 EA 12" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,855.92	481.29
<i>For Class 52 Rating, Deduct</i>	-233.94	
<i>For Class 54 Rating, Add</i>	159.50	
<i>For Class 55 Rating, Add</i>	354.52	
40 05 19 00-0183 EA 12" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,934.59	484.33
<i>For Class 52 Rating, Deduct</i>	-242.08	
<i>For Class 54 Rating, Add</i>	165.06	
<i>For Class 55 Rating, Add</i>	366.87	
40 05 19 00-0184 EA 12" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,013.27	487.38
<i>For Class 52 Rating, Deduct</i>	-250.23	
<i>For Class 54 Rating, Add</i>	170.61	
<i>For Class 55 Rating, Add</i>	379.21	
40 05 19 00-0185 EA 12" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,091.97	490.43
<i>For Class 52 Rating, Deduct</i>	-258.38	
<i>For Class 54 Rating, Add</i>	176.17	
<i>For Class 55 Rating, Add</i>	391.56	
40 05 19 00-0186 EA 12" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,170.65	493.47
<i>For Class 52 Rating, Deduct</i>	-266.53	
<i>For Class 54 Rating, Add</i>	181.72	
<i>For Class 55 Rating, Add</i>	403.91	
40 05 19 00-0187 EA 12" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,249.33	496.52
<i>For Class 52 Rating, Deduct</i>	-274.67	
<i>For Class 54 Rating, Add</i>	187.28	
<i>For Class 55 Rating, Add</i>	416.25	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0188	EA	12" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	3,328.02	499.57
		<i>For Class 52 Rating, Deduct</i>		-282.82	
		<i>For Class 54 Rating, Add</i>		192.83	
		<i>For Class 55 Rating, Add</i>		428.60	
40 05 19 00-0189	EA	12" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	3,406.71	502.62
		<i>For Class 52 Rating, Deduct</i>		-290.97	
		<i>For Class 54 Rating, Add</i>		198.39	
		<i>For Class 55 Rating, Add</i>		440.95	
40 05 19 00-0190	EA	12" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	3,485.39	505.66
		<i>For Class 52 Rating, Deduct</i>		-299.12	
		<i>For Class 54 Rating, Add</i>		203.94	
		<i>For Class 55 Rating, Add</i>		453.30	
40 05 19 00-0191	EA	12" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	3,564.07	508.71
		<i>For Class 52 Rating, Deduct</i>		-307.26	
		<i>For Class 54 Rating, Add</i>		209.50	
		<i>For Class 55 Rating, Add</i>		465.64	
40 05 19 00-0192	EA	12" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	3,642.75	511.76
		<i>For Class 52 Rating, Deduct</i>		-315.41	
		<i>For Class 54 Rating, Add</i>		215.05	
		<i>For Class 55 Rating, Add</i>		477.99	
40 05 19 00-0193	EA	12" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	3,721.43	514.79
		<i>For Class 52 Rating, Deduct</i>		-323.56	
		<i>For Class 54 Rating, Add</i>		220.61	
		<i>For Class 55 Rating, Add</i>		490.34	
40 05 19 00-0194	EA	12" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	3,800.12	517.84
		<i>For Class 52 Rating, Deduct</i>		-331.71	
		<i>For Class 54 Rating, Add</i>		226.16	
		<i>For Class 55 Rating, Add</i>		502.69	
40 05 19 00-0195	EA	12" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	3,878.81	520.89
		<i>For Class 52 Rating, Deduct</i>		-339.85	
		<i>For Class 54 Rating, Add</i>		231.72	
		<i>For Class 55 Rating, Add</i>		515.03	
40 05 19 00-0196	EA	12" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	3,957.49	523.93
		<i>For Class 52 Rating, Deduct</i>		-348.00	
		<i>For Class 54 Rating, Add</i>		237.27	
		<i>For Class 55 Rating, Add</i>		527.38	
40 05 19 00-0197	EA	12" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	4,036.17	526.98
		<i>For Class 52 Rating, Deduct</i>		-356.15	
		<i>For Class 54 Rating, Add</i>		242.83	
		<i>For Class 55 Rating, Add</i>		539.73	
40 05 19 00-0198	EA	12" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	4,114.86	530.03
		<i>For Class 52 Rating, Deduct</i>		-364.30	
		<i>For Class 54 Rating, Add</i>		248.38	
		<i>For Class 55 Rating, Add</i>		552.07	
40 05 19 00-0199	EA	12" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	4,193.54	533.07
		<i>For Class 52 Rating, Deduct</i>		-372.44	
		<i>For Class 54 Rating, Add</i>		253.94	
		<i>For Class 55 Rating, Add</i>		564.42	
40 05 19 00-0200	EA	12" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	4,272.22	536.12
		<i>For Class 52 Rating, Deduct</i>		-380.59	
		<i>For Class 54 Rating, Add</i>		259.49	
		<i>For Class 55 Rating, Add</i>		576.77	
40 05 19 00-0201	EA	12" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	4,350.90	539.17
		<i>For Class 52 Rating, Deduct</i>		-388.74	
		<i>For Class 54 Rating, Add</i>		265.05	
		<i>For Class 55 Rating, Add</i>		589.12	
40 05 19 00-0202	EA	12" Flanged (FxF), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	4,429.60	542.21
		<i>For Class 52 Rating, Deduct</i>		-396.89	
		<i>For Class 54 Rating, Add</i>		270.60	
		<i>For Class 55 Rating, Add</i>		601.46	
40 05 19 00-0203		14" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0002)</small>			
40 05 19 00-0204	EA	14" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	1,886.41	511.76
		<i>For Class 52 Rating, Deduct</i>		-122.21	
		<i>For Class 54 Rating, Add</i>		83.33	
		<i>For Class 55 Rating, Add</i>		185.21	
40 05 19 00-0205	EA	14" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	1,981.32	514.79
		<i>For Class 52 Rating, Deduct</i>		-132.15	
		<i>For Class 54 Rating, Add</i>		90.10	
		<i>For Class 55 Rating, Add</i>		200.26	
40 05 19 00-0206	EA	14" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	2,076.25	517.84
		<i>For Class 52 Rating, Deduct</i>		-142.08	
		<i>For Class 54 Rating, Add</i>		96.87	
		<i>For Class 55 Rating, Add</i>		215.32	
40 05 19 00-0207	EA	14" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	2,171.17	520.89
		<i>For Class 52 Rating, Deduct</i>		-152.01	
		<i>For Class 54 Rating, Add</i>		103.65	
		<i>For Class 55 Rating, Add</i>		230.37	
40 05 19 00-0208	EA	14" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	.....	2,266.08	523.93
		<i>For Class 52 Rating, Deduct</i>		-161.95	
		<i>For Class 54 Rating, Add</i>		110.42	
		<i>For Class 55 Rating, Add</i>		245.42	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0209 EA 14" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,361.00	526.98
<i>For Class 52 Rating, Deduct</i>	-171.88	
<i>For Class 54 Rating, Add</i>	117.19	
<i>For Class 55 Rating, Add</i>	260.48	
40 05 19 00-0210 EA 14" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,455.93	530.03
<i>For Class 52 Rating, Deduct</i>	-181.81	
<i>For Class 54 Rating, Add</i>	123.96	
<i>For Class 55 Rating, Add</i>	275.53	
40 05 19 00-0211 EA 14" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,550.84	533.07
<i>For Class 52 Rating, Deduct</i>	-191.75	
<i>For Class 54 Rating, Add</i>	130.74	
<i>For Class 55 Rating, Add</i>	290.58	
40 05 19 00-0212 EA 14" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,645.75	536.12
<i>For Class 52 Rating, Deduct</i>	-201.68	
<i>For Class 54 Rating, Add</i>	137.51	
<i>For Class 55 Rating, Add</i>	305.64	
40 05 19 00-0213 EA 14" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,740.67	539.17
<i>For Class 52 Rating, Deduct</i>	-211.61	
<i>For Class 54 Rating, Add</i>	144.28	
<i>For Class 55 Rating, Add</i>	320.69	
40 05 19 00-0214 EA 14" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,835.60	542.21
<i>For Class 52 Rating, Deduct</i>	-221.55	
<i>For Class 54 Rating, Add</i>	151.05	
<i>For Class 55 Rating, Add</i>	335.74	
40 05 19 00-0215 EA 14" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,930.51	545.26
<i>For Class 52 Rating, Deduct</i>	-231.48	
<i>For Class 54 Rating, Add</i>	157.83	
<i>For Class 55 Rating, Add</i>	350.80	
40 05 19 00-0216 EA 14" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,025.43	548.31
<i>For Class 52 Rating, Deduct</i>	-241.41	
<i>For Class 54 Rating, Add</i>	164.60	
<i>For Class 55 Rating, Add</i>	365.85	
40 05 19 00-0217 EA 14" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,120.35	551.35
<i>For Class 52 Rating, Deduct</i>	-251.35	
<i>For Class 54 Rating, Add</i>	171.37	
<i>For Class 55 Rating, Add</i>	380.90	
40 05 19 00-0218 EA 14" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,215.27	554.40
<i>For Class 52 Rating, Deduct</i>	-261.28	
<i>For Class 54 Rating, Add</i>	178.15	
<i>For Class 55 Rating, Add</i>	395.96	
40 05 19 00-0219 EA 14" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,310.19	557.45
<i>For Class 52 Rating, Deduct</i>	-271.21	
<i>For Class 54 Rating, Add</i>	184.92	
<i>For Class 55 Rating, Add</i>	411.01	
40 05 19 00-0220 EA 14" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,405.10	560.48
<i>For Class 52 Rating, Deduct</i>	-281.15	
<i>For Class 54 Rating, Add</i>	191.69	
<i>For Class 55 Rating, Add</i>	426.07	
40 05 19 00-0221 EA 14" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,500.02	563.53
<i>For Class 52 Rating, Deduct</i>	-291.08	
<i>For Class 54 Rating, Add</i>	198.46	
<i>For Class 55 Rating, Add</i>	441.12	
40 05 19 00-0222 EA 14" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,594.94	566.58
<i>For Class 52 Rating, Deduct</i>	-301.01	
<i>For Class 54 Rating, Add</i>	205.24	
<i>For Class 55 Rating, Add</i>	456.17	
40 05 19 00-0223 EA 14" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,689.86	569.63
<i>For Class 52 Rating, Deduct</i>	-310.95	
<i>For Class 54 Rating, Add</i>	212.01	
<i>For Class 55 Rating, Add</i>	471.23	
40 05 19 00-0224 EA 14" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,784.78	572.67
<i>For Class 52 Rating, Deduct</i>	-320.88	
<i>For Class 54 Rating, Add</i>	218.78	
<i>For Class 55 Rating, Add</i>	486.28	
40 05 19 00-0225 EA 14" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,879.69	575.72
<i>For Class 52 Rating, Deduct</i>	-330.81	
<i>For Class 54 Rating, Add</i>	225.55	
<i>For Class 55 Rating, Add</i>	501.33	
40 05 19 00-0226 EA 14" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,974.62	578.77
<i>For Class 52 Rating, Deduct</i>	-340.75	
<i>For Class 54 Rating, Add</i>	232.33	
<i>For Class 55 Rating, Add</i>	516.39	
40 05 19 00-0227 EA 14" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,069.54	581.81
<i>For Class 52 Rating, Deduct</i>	-350.68	
<i>For Class 54 Rating, Add</i>	239.10	
<i>For Class 55 Rating, Add</i>	531.44	
40 05 19 00-0228 EA 14" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,164.45	584.86
<i>For Class 52 Rating, Deduct</i>	-360.61	
<i>For Class 54 Rating, Add</i>	245.87	
<i>For Class 55 Rating, Add</i>	546.49	
40 05 19 00-0229 EA 14" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,259.36	587.91
<i>For Class 52 Rating, Deduct</i>	-370.55	
<i>For Class 54 Rating, Add</i>	252.65	
<i>For Class 55 Rating, Add</i>	561.55	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0230	EA		14" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,354.29	590.95
			<i>For Class 52 Rating, Deduct</i>	-380.48	
			<i>For Class 54 Rating, Add</i>	259.42	
			<i>For Class 55 Rating, Add</i>	576.60	
40 05 19 00-0231	EA		14" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,449.21	594.00
			<i>For Class 52 Rating, Deduct</i>	-390.41	
			<i>For Class 54 Rating, Add</i>	266.19	
			<i>For Class 55 Rating, Add</i>	591.65	
40 05 19 00-0232	EA		14" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,544.12	597.05
			<i>For Class 52 Rating, Deduct</i>	-400.35	
			<i>For Class 54 Rating, Add</i>	272.96	
			<i>For Class 55 Rating, Add</i>	606.71	
40 05 19 00-0233	EA		14" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,639.04	600.09
			<i>For Class 52 Rating, Deduct</i>	-410.28	
			<i>For Class 54 Rating, Add</i>	279.74	
			<i>For Class 55 Rating, Add</i>	621.76	
40 05 19 00-0234	EA		14" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,733.97	603.13
			<i>For Class 52 Rating, Deduct</i>	-420.21	
			<i>For Class 54 Rating, Add</i>	286.51	
			<i>For Class 55 Rating, Add</i>	636.81	
40 05 19 00-0235	EA		14" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,828.88	606.18
			<i>For Class 52 Rating, Deduct</i>	-430.15	
			<i>For Class 54 Rating, Add</i>	293.28	
			<i>For Class 55 Rating, Add</i>	651.87	
40 05 19 00-0236	EA		14" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,923.80	609.22
			<i>For Class 52 Rating, Deduct</i>	-440.08	
			<i>For Class 54 Rating, Add</i>	300.05	
			<i>For Class 55 Rating, Add</i>	666.92	
40 05 19 00-0237	EA		14" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,018.71	612.27
			<i>For Class 52 Rating, Deduct</i>	-450.01	
			<i>For Class 54 Rating, Add</i>	306.83	
			<i>For Class 55 Rating, Add</i>	681.97	
40 05 19 00-0238	EA		14" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,113.64	615.32
			<i>For Class 52 Rating, Deduct</i>	-459.95	
			<i>For Class 54 Rating, Add</i>	313.60	
			<i>For Class 55 Rating, Add</i>	697.03	
40 05 19 00-0239	EA		14" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,208.55	618.36
			<i>For Class 52 Rating, Deduct</i>	-469.88	
			<i>For Class 54 Rating, Add</i>	320.37	
			<i>For Class 55 Rating, Add</i>	712.08	
40 05 19 00-0240	EA		14" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,303.47	621.41
			<i>For Class 52 Rating, Deduct</i>	-479.81	
			<i>For Class 54 Rating, Add</i>	327.15	
			<i>For Class 55 Rating, Add</i>	727.14	
40 05 19 00-0241	EA		14" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,398.39	624.46
			<i>For Class 52 Rating, Deduct</i>	-489.75	
			<i>For Class 54 Rating, Add</i>	333.92	
			<i>For Class 55 Rating, Add</i>	742.19	
40 05 19 00-0242			16" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0002)</small>		
40 05 19 00-0243	EA		16" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,203.15	584.86
			<i>For Class 52 Rating, Deduct</i>	-144.87	
			<i>For Class 54 Rating, Add</i>	98.78	
			<i>For Class 55 Rating, Add</i>	219.54	
40 05 19 00-0244	EA		16" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,313.29	587.91
			<i>For Class 52 Rating, Deduct</i>	-156.48	
			<i>For Class 54 Rating, Add</i>	106.69	
			<i>For Class 55 Rating, Add</i>	237.14	
40 05 19 00-0245	EA		16" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,423.43	590.95
			<i>For Class 52 Rating, Deduct</i>	-168.09	
			<i>For Class 54 Rating, Add</i>	114.60	
			<i>For Class 55 Rating, Add</i>	254.73	
40 05 19 00-0246	EA		16" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,533.57	594.00
			<i>For Class 52 Rating, Deduct</i>	-179.69	
			<i>For Class 54 Rating, Add</i>	122.52	
			<i>For Class 55 Rating, Add</i>	272.32	
40 05 19 00-0247	EA		16" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,643.70	597.05
			<i>For Class 52 Rating, Deduct</i>	-191.30	
			<i>For Class 54 Rating, Add</i>	130.43	
			<i>For Class 55 Rating, Add</i>	289.91	
40 05 19 00-0248	EA		16" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,753.84	600.09
			<i>For Class 52 Rating, Deduct</i>	-202.91	
			<i>For Class 54 Rating, Add</i>	138.35	
			<i>For Class 55 Rating, Add</i>	307.50	
40 05 19 00-0249	EA		16" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,863.99	603.13
			<i>For Class 52 Rating, Deduct</i>	-214.52	
			<i>For Class 54 Rating, Add</i>	146.26	
			<i>For Class 55 Rating, Add</i>	325.09	
40 05 19 00-0250	EA		16" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,974.12	606.18
			<i>For Class 52 Rating, Deduct</i>	-226.12	
			<i>For Class 54 Rating, Add</i>	154.17	
			<i>For Class 55 Rating, Add</i>	342.68	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0251 EA 16" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,084.25	609.22
<i>For Class 52 Rating, Deduct</i>	-237.73	
<i>For Class 54 Rating, Add</i>	162.09	
<i>For Class 55 Rating, Add</i>	360.27	
40 05 19 00-0252 EA 16" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,194.39	612.27
<i>For Class 52 Rating, Deduct</i>	-249.34	
<i>For Class 54 Rating, Add</i>	170.00	
<i>For Class 55 Rating, Add</i>	377.86	
40 05 19 00-0253 EA 16" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,304.54	615.32
<i>For Class 52 Rating, Deduct</i>	-260.95	
<i>For Class 54 Rating, Add</i>	177.92	
<i>For Class 55 Rating, Add</i>	395.45	
40 05 19 00-0254 EA 16" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,414.67	618.36
<i>For Class 52 Rating, Deduct</i>	-272.55	
<i>For Class 54 Rating, Add</i>	185.83	
<i>For Class 55 Rating, Add</i>	413.04	
40 05 19 00-0255 EA 16" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,524.80	621.41
<i>For Class 52 Rating, Deduct</i>	-284.16	
<i>For Class 54 Rating, Add</i>	193.75	
<i>For Class 55 Rating, Add</i>	430.63	
40 05 19 00-0256 EA 16" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,634.95	624.46
<i>For Class 52 Rating, Deduct</i>	-295.77	
<i>For Class 54 Rating, Add</i>	201.66	
<i>For Class 55 Rating, Add</i>	448.22	
40 05 19 00-0257 EA 16" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,745.09	627.50
<i>For Class 52 Rating, Deduct</i>	-307.38	
<i>For Class 54 Rating, Add</i>	209.57	
<i>For Class 55 Rating, Add</i>	465.81	
40 05 19 00-0258 EA 16" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,855.22	630.55
<i>For Class 52 Rating, Deduct</i>	-318.98	
<i>For Class 54 Rating, Add</i>	217.49	
<i>For Class 55 Rating, Add</i>	483.40	
40 05 19 00-0259 EA 16" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,965.35	633.60
<i>For Class 52 Rating, Deduct</i>	-330.59	
<i>For Class 54 Rating, Add</i>	225.40	
<i>For Class 55 Rating, Add</i>	500.99	
40 05 19 00-0260 EA 16" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,075.50	636.65
<i>For Class 52 Rating, Deduct</i>	-342.20	
<i>For Class 54 Rating, Add</i>	233.32	
<i>For Class 55 Rating, Add</i>	518.59	
40 05 19 00-0261 EA 16" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,185.64	639.69
<i>For Class 52 Rating, Deduct</i>	-353.81	
<i>For Class 54 Rating, Add</i>	241.23	
<i>For Class 55 Rating, Add</i>	536.18	
40 05 19 00-0262 EA 16" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,295.77	642.74
<i>For Class 52 Rating, Deduct</i>	-365.41	
<i>For Class 54 Rating, Add</i>	249.14	
<i>For Class 55 Rating, Add</i>	553.77	
40 05 19 00-0263 EA 16" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,405.91	645.79
<i>For Class 52 Rating, Deduct</i>	-377.02	
<i>For Class 54 Rating, Add</i>	257.06	
<i>For Class 55 Rating, Add</i>	571.36	
40 05 19 00-0264 EA 16" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,516.05	648.82
<i>For Class 52 Rating, Deduct</i>	-388.63	
<i>For Class 54 Rating, Add</i>	264.97	
<i>For Class 55 Rating, Add</i>	588.95	
40 05 19 00-0265 EA 16" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,626.19	651.87
<i>For Class 52 Rating, Deduct</i>	-400.24	
<i>For Class 54 Rating, Add</i>	272.89	
<i>For Class 55 Rating, Add</i>	606.54	
40 05 19 00-0266 EA 16" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,736.32	654.92
<i>For Class 52 Rating, Deduct</i>	-411.84	
<i>For Class 54 Rating, Add</i>	280.80	
<i>For Class 55 Rating, Add</i>	624.13	
40 05 19 00-0267 EA 16" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,846.46	657.96
<i>For Class 52 Rating, Deduct</i>	-423.45	
<i>For Class 54 Rating, Add</i>	288.72	
<i>For Class 55 Rating, Add</i>	641.72	
40 05 19 00-0268 EA 16" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,956.60	661.01
<i>For Class 52 Rating, Deduct</i>	-435.06	
<i>For Class 54 Rating, Add</i>	296.63	
<i>For Class 55 Rating, Add</i>	659.31	
40 05 19 00-0269 EA 16" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,066.74	664.06
<i>For Class 52 Rating, Deduct</i>	-446.66	
<i>For Class 54 Rating, Add</i>	304.54	
<i>For Class 55 Rating, Add</i>	676.90	
40 05 19 00-0270 EA 16" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,176.88	667.10
<i>For Class 52 Rating, Deduct</i>	-458.27	
<i>For Class 54 Rating, Add</i>	312.46	
<i>For Class 55 Rating, Add</i>	694.49	
40 05 19 00-0271 EA 16" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,287.01	670.15
<i>For Class 52 Rating, Deduct</i>	-469.88	
<i>For Class 54 Rating, Add</i>	320.37	
<i>For Class 55 Rating, Add</i>	712.08	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0272	EA		16" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,397.15	673.20
			<i>For Class 52 Rating, Deduct</i>	-481.49	
			<i>For Class 54 Rating, Add</i>	328.29	
			<i>For Class 55 Rating, Add</i>	729.67	
40 05 19 00-0273	EA		16" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,507.29	676.24
			<i>For Class 52 Rating, Deduct</i>	-493.09	
			<i>For Class 54 Rating, Add</i>	336.20	
			<i>For Class 55 Rating, Add</i>	747.26	
40 05 19 00-0274	EA		16" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,617.43	679.29
			<i>For Class 52 Rating, Deduct</i>	-504.70	
			<i>For Class 54 Rating, Add</i>	344.12	
			<i>For Class 55 Rating, Add</i>	764.85	
40 05 19 00-0275	EA		16" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,727.56	682.34
			<i>For Class 52 Rating, Deduct</i>	-516.31	
			<i>For Class 54 Rating, Add</i>	352.03	
			<i>For Class 55 Rating, Add</i>	782.44	
40 05 19 00-0276	EA		16" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,837.70	685.38
			<i>For Class 52 Rating, Deduct</i>	-527.92	
			<i>For Class 54 Rating, Add</i>	359.94	
			<i>For Class 55 Rating, Add</i>	800.03	
40 05 19 00-0277	EA		16" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,947.84	688.43
			<i>For Class 52 Rating, Deduct</i>	-539.52	
			<i>For Class 54 Rating, Add</i>	367.86	
			<i>For Class 55 Rating, Add</i>	817.63	
40 05 19 00-0278	EA		16" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,057.98	691.48
			<i>For Class 52 Rating, Deduct</i>	-551.13	
			<i>For Class 54 Rating, Add</i>	375.77	
			<i>For Class 55 Rating, Add</i>	835.22	
40 05 19 00-0279	EA		16" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,168.11	694.52
			<i>For Class 52 Rating, Deduct</i>	-562.74	
			<i>For Class 54 Rating, Add</i>	383.69	
			<i>For Class 55 Rating, Add</i>	852.81	
40 05 19 00-0280	EA		16" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,278.26	697.56
			<i>For Class 52 Rating, Deduct</i>	-574.35	
			<i>For Class 54 Rating, Add</i>	391.60	
			<i>For Class 55 Rating, Add</i>	870.40	
40 05 19 00-0281			18" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0002)</small>		
40 05 19 00-0282	EA		18" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,551.16	659.18
			<i>For Class 52 Rating, Deduct</i>	-170.76	
			<i>For Class 54 Rating, Add</i>	116.43	
			<i>For Class 55 Rating, Add</i>	258.79	
40 05 19 00-0283	EA		18" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,677.54	662.23
			<i>For Class 52 Rating, Deduct</i>	-184.16	
			<i>For Class 54 Rating, Add</i>	125.56	
			<i>For Class 55 Rating, Add</i>	279.08	
40 05 19 00-0284	EA		18" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,803.90	665.28
			<i>For Class 52 Rating, Deduct</i>	-197.55	
			<i>For Class 54 Rating, Add</i>	134.69	
			<i>For Class 55 Rating, Add</i>	299.38	
40 05 19 00-0285	EA		18" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,930.28	668.32
			<i>For Class 52 Rating, Deduct</i>	-210.94	
			<i>For Class 54 Rating, Add</i>	143.83	
			<i>For Class 55 Rating, Add</i>	319.68	
40 05 19 00-0286	EA		18" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,056.66	671.37
			<i>For Class 52 Rating, Deduct</i>	-224.34	
			<i>For Class 54 Rating, Add</i>	152.96	
			<i>For Class 55 Rating, Add</i>	339.97	
40 05 19 00-0287	EA		18" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,183.02	674.42
			<i>For Class 52 Rating, Deduct</i>	-237.73	
			<i>For Class 54 Rating, Add</i>	162.09	
			<i>For Class 55 Rating, Add</i>	360.27	
40 05 19 00-0288	EA		18" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,309.39	677.46
			<i>For Class 52 Rating, Deduct</i>	-251.12	
			<i>For Class 54 Rating, Add</i>	171.22	
			<i>For Class 55 Rating, Add</i>	380.57	
40 05 19 00-0289	EA		18" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,435.78	680.51
			<i>For Class 52 Rating, Deduct</i>	-264.52	
			<i>For Class 54 Rating, Add</i>	180.35	
			<i>For Class 55 Rating, Add</i>	400.86	
40 05 19 00-0290	EA		18" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,562.14	683.56
			<i>For Class 52 Rating, Deduct</i>	-277.91	
			<i>For Class 54 Rating, Add</i>	189.48	
			<i>For Class 55 Rating, Add</i>	421.16	
40 05 19 00-0291	EA		18" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,688.51	686.60
			<i>For Class 52 Rating, Deduct</i>	-291.30	
			<i>For Class 54 Rating, Add</i>	198.62	
			<i>For Class 55 Rating, Add</i>	441.46	
40 05 19 00-0292	EA		18" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,814.88	689.65
			<i>For Class 52 Rating, Deduct</i>	-304.70	
			<i>For Class 54 Rating, Add</i>	207.75	
			<i>For Class 55 Rating, Add</i>	461.75	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0293 EA 18" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,941.26	692.69
<i>For Class 52 Rating, Deduct</i>	-318.09	
<i>For Class 54 Rating, Add</i>	216.88	
<i>For Class 55 Rating, Add</i>	482.05	
40 05 19 00-0294 EA 18" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,067.63	695.73
<i>For Class 52 Rating, Deduct</i>	-331.48	
<i>For Class 54 Rating, Add</i>	226.01	
<i>For Class 55 Rating, Add</i>	502.35	
40 05 19 00-0295 EA 18" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,194.00	698.78
<i>For Class 52 Rating, Deduct</i>	-344.88	
<i>For Class 54 Rating, Add</i>	235.14	
<i>For Class 55 Rating, Add</i>	522.64	
40 05 19 00-0296 EA 18" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,320.37	701.83
<i>For Class 52 Rating, Deduct</i>	-358.27	
<i>For Class 54 Rating, Add</i>	244.27	
<i>For Class 55 Rating, Add</i>	542.94	
40 05 19 00-0297 EA 18" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,446.75	704.87
<i>For Class 52 Rating, Deduct</i>	-371.66	
<i>For Class 54 Rating, Add</i>	253.41	
<i>For Class 55 Rating, Add</i>	563.24	
40 05 19 00-0298 EA 18" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,573.12	707.92
<i>For Class 52 Rating, Deduct</i>	-385.06	
<i>For Class 54 Rating, Add</i>	262.54	
<i>For Class 55 Rating, Add</i>	583.54	
40 05 19 00-0299 EA 18" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,699.48	710.97
<i>For Class 52 Rating, Deduct</i>	-398.45	
<i>For Class 54 Rating, Add</i>	271.67	
<i>For Class 55 Rating, Add</i>	603.83	
40 05 19 00-0300 EA 18" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,825.86	714.01
<i>For Class 52 Rating, Deduct</i>	-411.84	
<i>For Class 54 Rating, Add</i>	280.80	
<i>For Class 55 Rating, Add</i>	624.13	
40 05 19 00-0301 EA 18" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,952.24	717.06
<i>For Class 52 Rating, Deduct</i>	-425.24	
<i>For Class 54 Rating, Add</i>	289.93	
<i>For Class 55 Rating, Add</i>	644.43	
40 05 19 00-0302 EA 18" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,078.61	720.11
<i>For Class 52 Rating, Deduct</i>	-438.63	
<i>For Class 54 Rating, Add</i>	299.07	
<i>For Class 55 Rating, Add</i>	664.72	
40 05 19 00-0303 EA 18" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,204.98	723.16
<i>For Class 52 Rating, Deduct</i>	-452.02	
<i>For Class 54 Rating, Add</i>	308.20	
<i>For Class 55 Rating, Add</i>	685.02	
40 05 19 00-0304 EA 18" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,331.35	726.20
<i>For Class 52 Rating, Deduct</i>	-465.42	
<i>For Class 54 Rating, Add</i>	317.33	
<i>For Class 55 Rating, Add</i>	705.32	
40 05 19 00-0305 EA 18" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,457.73	729.25
<i>For Class 52 Rating, Deduct</i>	-478.81	
<i>For Class 54 Rating, Add</i>	326.46	
<i>For Class 55 Rating, Add</i>	725.61	
40 05 19 00-0306 EA 18" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,584.09	732.30
<i>For Class 52 Rating, Deduct</i>	-492.20	
<i>For Class 54 Rating, Add</i>	335.59	
<i>For Class 55 Rating, Add</i>	745.91	
40 05 19 00-0307 EA 18" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,710.47	735.34
<i>For Class 52 Rating, Deduct</i>	-505.60	
<i>For Class 54 Rating, Add</i>	344.72	
<i>For Class 55 Rating, Add</i>	766.21	
40 05 19 00-0308 EA 18" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,836.84	738.38
<i>For Class 52 Rating, Deduct</i>	-518.99	
<i>For Class 54 Rating, Add</i>	353.86	
<i>For Class 55 Rating, Add</i>	786.50	
40 05 19 00-0309 EA 18" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,963.21	741.43
<i>For Class 52 Rating, Deduct</i>	-532.38	
<i>For Class 54 Rating, Add</i>	362.99	
<i>For Class 55 Rating, Add</i>	806.80	
40 05 19 00-0310 EA 18" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,089.59	744.47
<i>For Class 52 Rating, Deduct</i>	-545.77	
<i>For Class 54 Rating, Add</i>	372.12	
<i>For Class 55 Rating, Add</i>	827.10	
40 05 19 00-0311 EA 18" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,215.96	747.52
<i>For Class 52 Rating, Deduct</i>	-559.17	
<i>For Class 54 Rating, Add</i>	381.25	
<i>For Class 55 Rating, Add</i>	847.39	
40 05 19 00-0312 EA 18" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,342.32	750.57
<i>For Class 52 Rating, Deduct</i>	-572.56	
<i>For Class 54 Rating, Add</i>	390.38	
<i>For Class 55 Rating, Add</i>	867.69	
40 05 19 00-0313 EA 18" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,468.70	753.61
<i>For Class 52 Rating, Deduct</i>	-585.95	
<i>For Class 54 Rating, Add</i>	399.51	
<i>For Class 55 Rating, Add</i>	887.99	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0314	EA		18" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,595.08	756.66
			<i>For Class 52 Rating, Deduct</i>	-599.35	
			<i>For Class 54 Rating, Add</i>	408.65	
			<i>For Class 55 Rating, Add</i>	908.28	
40 05 19 00-0315	EA		18" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,721.44	759.71
			<i>For Class 52 Rating, Deduct</i>	-612.74	
			<i>For Class 54 Rating, Add</i>	417.78	
			<i>For Class 55 Rating, Add</i>	928.58	
40 05 19 00-0316	EA		18" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,847.81	762.75
			<i>For Class 52 Rating, Deduct</i>	-626.13	
			<i>For Class 54 Rating, Add</i>	426.91	
			<i>For Class 55 Rating, Add</i>	948.88	
40 05 19 00-0317	EA		18" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,974.20	765.80
			<i>For Class 52 Rating, Deduct</i>	-639.53	
			<i>For Class 54 Rating, Add</i>	436.04	
			<i>For Class 55 Rating, Add</i>	969.18	
40 05 19 00-0318	EA		18" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,100.56	768.85
			<i>For Class 52 Rating, Deduct</i>	-652.92	
			<i>For Class 54 Rating, Add</i>	445.17	
			<i>For Class 55 Rating, Add</i>	989.47	
40 05 19 00-0319	EA		18" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,226.93	771.89
			<i>For Class 52 Rating, Deduct</i>	-666.31	
			<i>For Class 54 Rating, Add</i>	454.31	
			<i>For Class 55 Rating, Add</i>	1,009.77	
40 05 19 00-0320			20" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0002)</small>		
40 05 19 00-0321	EA		20" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,975.48	752.39
			<i>For Class 52 Rating, Deduct</i>	-201.90	
			<i>For Class 54 Rating, Add</i>	137.66	
			<i>For Class 55 Rating, Add</i>	305.97	
40 05 19 00-0322	EA		20" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,120.11	755.44
			<i>For Class 52 Rating, Deduct</i>	-217.31	
			<i>For Class 54 Rating, Add</i>	148.16	
			<i>For Class 55 Rating, Add</i>	329.32	
40 05 19 00-0323	EA		20" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,264.74	758.49
			<i>For Class 52 Rating, Deduct</i>	-232.71	
			<i>For Class 54 Rating, Add</i>	158.66	
			<i>For Class 55 Rating, Add</i>	352.66	
40 05 19 00-0324	EA		20" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,409.38	761.54
			<i>For Class 52 Rating, Deduct</i>	-248.11	
			<i>For Class 54 Rating, Add</i>	169.17	
			<i>For Class 55 Rating, Add</i>	376.00	
40 05 19 00-0325	EA		20" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,554.02	764.58
			<i>For Class 52 Rating, Deduct</i>	-263.51	
			<i>For Class 54 Rating, Add</i>	179.67	
			<i>For Class 55 Rating, Add</i>	399.34	
40 05 19 00-0326	EA		20" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,698.66	767.63
			<i>For Class 52 Rating, Deduct</i>	-278.91	
			<i>For Class 54 Rating, Add</i>	190.17	
			<i>For Class 55 Rating, Add</i>	422.68	
40 05 19 00-0327	EA		20" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,843.30	770.68
			<i>For Class 52 Rating, Deduct</i>	-294.32	
			<i>For Class 54 Rating, Add</i>	200.67	
			<i>For Class 55 Rating, Add</i>	446.02	
40 05 19 00-0328	EA		20" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,987.93	773.72
			<i>For Class 52 Rating, Deduct</i>	-309.72	
			<i>For Class 54 Rating, Add</i>	211.17	
			<i>For Class 55 Rating, Add</i>	469.37	
40 05 19 00-0329	EA		20" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,132.57	776.77
			<i>For Class 52 Rating, Deduct</i>	-325.12	
			<i>For Class 54 Rating, Add</i>	221.67	
			<i>For Class 55 Rating, Add</i>	492.71	
40 05 19 00-0330	EA		20" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,277.20	779.82
			<i>For Class 52 Rating, Deduct</i>	-340.52	
			<i>For Class 54 Rating, Add</i>	232.18	
			<i>For Class 55 Rating, Add</i>	516.05	
40 05 19 00-0331	EA		20" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,421.84	782.85
			<i>For Class 52 Rating, Deduct</i>	-355.93	
			<i>For Class 54 Rating, Add</i>	242.68	
			<i>For Class 55 Rating, Add</i>	539.39	
40 05 19 00-0332	EA		20" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,566.47	785.90
			<i>For Class 52 Rating, Deduct</i>	-371.33	
			<i>For Class 54 Rating, Add</i>	253.18	
			<i>For Class 55 Rating, Add</i>	562.73	
40 05 19 00-0333	EA		20" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,711.11	788.95
			<i>For Class 52 Rating, Deduct</i>	-386.73	
			<i>For Class 54 Rating, Add</i>	263.68	
			<i>For Class 55 Rating, Add</i>	586.07	
40 05 19 00-0334	EA		20" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,855.75	791.99
			<i>For Class 52 Rating, Deduct</i>	-402.13	
			<i>For Class 54 Rating, Add</i>	274.18	
			<i>For Class 55 Rating, Add</i>	609.41	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0335 EA 20" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,000.38	795.04
For Class 52 Rating, Deduct	-417.53	
For Class 54 Rating, Add	284.68	
For Class 55 Rating, Add	632.75	
40 05 19 00-0336 EA 20" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,145.01	798.09
For Class 52 Rating, Deduct	-432.94	
For Class 54 Rating, Add	295.18	
For Class 55 Rating, Add	656.10	
40 05 19 00-0337 EA 20" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,289.65	801.13
For Class 52 Rating, Deduct	-448.34	
For Class 54 Rating, Add	305.69	
For Class 55 Rating, Add	679.44	
40 05 19 00-0338 EA 20" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,434.29	804.18
For Class 52 Rating, Deduct	-463.74	
For Class 54 Rating, Add	316.19	
For Class 55 Rating, Add	702.78	
40 05 19 00-0339 EA 20" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,578.92	807.23
For Class 52 Rating, Deduct	-479.14	
For Class 54 Rating, Add	326.69	
For Class 55 Rating, Add	726.12	
40 05 19 00-0340 EA 20" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,723.55	810.27
For Class 52 Rating, Deduct	-494.55	
For Class 54 Rating, Add	337.19	
For Class 55 Rating, Add	749.46	
40 05 19 00-0341 EA 20" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,868.20	813.32
For Class 52 Rating, Deduct	-509.95	
For Class 54 Rating, Add	347.69	
For Class 55 Rating, Add	772.80	
40 05 19 00-0342 EA 20" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,012.83	816.37
For Class 52 Rating, Deduct	-525.35	
For Class 54 Rating, Add	358.19	
For Class 55 Rating, Add	796.14	
40 05 19 00-0343 EA 20" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,157.46	819.41
For Class 52 Rating, Deduct	-540.75	
For Class 54 Rating, Add	368.69	
For Class 55 Rating, Add	819.49	
40 05 19 00-0344 EA 20" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,302.09	822.46
For Class 52 Rating, Deduct	-556.15	
For Class 54 Rating, Add	379.20	
For Class 55 Rating, Add	842.83	
40 05 19 00-0345 EA 20" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,446.74	825.51
For Class 52 Rating, Deduct	-571.56	
For Class 54 Rating, Add	389.70	
For Class 55 Rating, Add	866.17	
40 05 19 00-0346 EA 20" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,591.37	828.55
For Class 52 Rating, Deduct	-586.96	
For Class 54 Rating, Add	400.20	
For Class 55 Rating, Add	889.51	
40 05 19 00-0347 EA 20" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,736.00	831.59
For Class 52 Rating, Deduct	-602.36	
For Class 54 Rating, Add	410.70	
For Class 55 Rating, Add	912.85	
40 05 19 00-0348 EA 20" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,880.64	834.64
For Class 52 Rating, Deduct	-617.76	
For Class 54 Rating, Add	421.20	
For Class 55 Rating, Add	936.19	
40 05 19 00-0349 EA 20" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,025.28	837.69
For Class 52 Rating, Deduct	-633.17	
For Class 54 Rating, Add	431.70	
For Class 55 Rating, Add	959.53	
40 05 19 00-0350 EA 20" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,169.91	840.73
For Class 52 Rating, Deduct	-648.57	
For Class 54 Rating, Add	442.21	
For Class 55 Rating, Add	982.87	
40 05 19 00-0351 EA 20" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,314.55	843.78
For Class 52 Rating, Deduct	-663.97	
For Class 54 Rating, Add	452.71	
For Class 55 Rating, Add	1,006.22	
40 05 19 00-0352 EA 20" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,459.18	846.83
For Class 52 Rating, Deduct	-679.37	
For Class 54 Rating, Add	463.21	
For Class 55 Rating, Add	1,029.56	
40 05 19 00-0353 EA 20" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,603.81	849.87
For Class 52 Rating, Deduct	-694.77	
For Class 54 Rating, Add	473.71	
For Class 55 Rating, Add	1,052.90	
40 05 19 00-0354 EA 20" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,748.45	852.92
For Class 52 Rating, Deduct	-710.18	
For Class 54 Rating, Add	484.21	
For Class 55 Rating, Add	1,076.24	
40 05 19 00-0355 EA 20" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,893.09	855.97
For Class 52 Rating, Deduct	-725.58	
For Class 54 Rating, Add	494.71	
For Class 55 Rating, Add	1,099.58	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0356	EA		20" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,037.73	859.01
			<i>For Class 52 Rating, Deduct</i>	-740.98	
			<i>For Class 54 Rating, Add</i>	505.22	
			<i>For Class 55 Rating, Add</i>	1,122.92	
40 05 19 00-0357	EA		20" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,182.36	862.06
			<i>For Class 52 Rating, Deduct</i>	-756.38	
			<i>For Class 54 Rating, Add</i>	515.72	
			<i>For Class 55 Rating, Add</i>	1,146.27	
40 05 19 00-0358	EA		20" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,327.01	865.11
			<i>For Class 52 Rating, Deduct</i>	-771.79	
			<i>For Class 54 Rating, Add</i>	526.22	
			<i>For Class 55 Rating, Add</i>	1,169.61	
40 05 19 00-0359			24" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0002)</small>		
40 05 19 00-0360	EA		24" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,638.75	889.47
			<i>For Class 52 Rating, Deduct</i>	-252.02	
			<i>For Class 54 Rating, Add</i>	171.83	
			<i>For Class 55 Rating, Add</i>	381.92	
40 05 19 00-0361	EA		24" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,816.86	892.52
			<i>For Class 52 Rating, Deduct</i>	-271.10	
			<i>For Class 54 Rating, Add</i>	184.84	
			<i>For Class 55 Rating, Add</i>	410.84	
40 05 19 00-0362	EA		24" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,994.97	895.57
			<i>For Class 52 Rating, Deduct</i>	-290.19	
			<i>For Class 54 Rating, Add</i>	197.85	
			<i>For Class 55 Rating, Add</i>	439.76	
40 05 19 00-0363	EA		24" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,173.10	898.61
			<i>For Class 52 Rating, Deduct</i>	-309.27	
			<i>For Class 54 Rating, Add</i>	210.87	
			<i>For Class 55 Rating, Add</i>	468.69	
40 05 19 00-0364	EA		24" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,351.22	901.66
			<i>For Class 52 Rating, Deduct</i>	-328.36	
			<i>For Class 54 Rating, Add</i>	223.88	
			<i>For Class 55 Rating, Add</i>	497.61	
40 05 19 00-0365	EA		24" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,529.33	904.71
			<i>For Class 52 Rating, Deduct</i>	-347.44	
			<i>For Class 54 Rating, Add</i>	236.89	
			<i>For Class 55 Rating, Add</i>	526.53	
40 05 19 00-0366	EA		24" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,707.46	907.75
			<i>For Class 52 Rating, Deduct</i>	-366.53	
			<i>For Class 54 Rating, Add</i>	249.91	
			<i>For Class 55 Rating, Add</i>	555.46	
40 05 19 00-0367	EA		24" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,885.57	910.80
			<i>For Class 52 Rating, Deduct</i>	-385.61	
			<i>For Class 54 Rating, Add</i>	262.92	
			<i>For Class 55 Rating, Add</i>	584.38	
40 05 19 00-0368	EA		24" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,063.69	913.85
			<i>For Class 52 Rating, Deduct</i>	-404.70	
			<i>For Class 54 Rating, Add</i>	275.93	
			<i>For Class 55 Rating, Add</i>	613.30	
40 05 19 00-0369	EA		24" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,241.81	916.88
			<i>For Class 52 Rating, Deduct</i>	-423.78	
			<i>For Class 54 Rating, Add</i>	288.94	
			<i>For Class 55 Rating, Add</i>	642.23	
40 05 19 00-0370	EA		24" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,419.93	919.93
			<i>For Class 52 Rating, Deduct</i>	-442.87	
			<i>For Class 54 Rating, Add</i>	301.96	
			<i>For Class 55 Rating, Add</i>	671.15	
40 05 19 00-0371	EA		24" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,598.05	922.98
			<i>For Class 52 Rating, Deduct</i>	-461.96	
			<i>For Class 54 Rating, Add</i>	314.97	
			<i>For Class 55 Rating, Add</i>	700.07	
40 05 19 00-0372	EA		24" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,776.17	926.02
			<i>For Class 52 Rating, Deduct</i>	-481.04	
			<i>For Class 54 Rating, Add</i>	327.98	
			<i>For Class 55 Rating, Add</i>	729.00	
40 05 19 00-0373	EA		24" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,954.29	929.07
			<i>For Class 52 Rating, Deduct</i>	-500.13	
			<i>For Class 54 Rating, Add</i>	341.00	
			<i>For Class 55 Rating, Add</i>	757.92	
40 05 19 00-0374	EA		24" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,132.41	932.12
			<i>For Class 52 Rating, Deduct</i>	-519.21	
			<i>For Class 54 Rating, Add</i>	354.01	
			<i>For Class 55 Rating, Add</i>	786.84	
40 05 19 00-0375	EA		24" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,310.52	935.16
			<i>For Class 52 Rating, Deduct</i>	-538.30	
			<i>For Class 54 Rating, Add</i>	367.02	
			<i>For Class 55 Rating, Add</i>	815.76	
40 05 19 00-0376	EA		24" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,488.65	938.21
			<i>For Class 52 Rating, Deduct</i>	-557.38	
			<i>For Class 54 Rating, Add</i>	380.03	
			<i>For Class 55 Rating, Add</i>	844.69	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0377 EA 24" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,666.77	941.26
<i>For Class 52 Rating, Deduct</i>	-576.47	
<i>For Class 54 Rating, Add</i>	393.05	
<i>For Class 55 Rating, Add</i>	873.61	
40 05 19 00-0378 EA 24" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,844.88	944.30
<i>For Class 52 Rating, Deduct</i>	-595.55	
<i>For Class 54 Rating, Add</i>	406.06	
<i>For Class 55 Rating, Add</i>	902.53	
40 05 19 00-0379 EA 24" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,022.99	947.35
<i>For Class 52 Rating, Deduct</i>	-614.64	
<i>For Class 54 Rating, Add</i>	419.07	
<i>For Class 55 Rating, Add</i>	931.46	
40 05 19 00-0380 EA 24" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,201.13	950.40
<i>For Class 52 Rating, Deduct</i>	-633.72	
<i>For Class 54 Rating, Add</i>	432.08	
<i>For Class 55 Rating, Add</i>	960.38	
40 05 19 00-0381 EA 24" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,379.24	953.44
<i>For Class 52 Rating, Deduct</i>	-652.81	
<i>For Class 54 Rating, Add</i>	445.10	
<i>For Class 55 Rating, Add</i>	989.30	
40 05 19 00-0382 EA 24" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,557.35	956.49
<i>For Class 52 Rating, Deduct</i>	-671.89	
<i>For Class 54 Rating, Add</i>	458.11	
<i>For Class 55 Rating, Add</i>	1,018.23	
40 05 19 00-0383 EA 24" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,735.48	959.54
<i>For Class 52 Rating, Deduct</i>	-690.98	
<i>For Class 54 Rating, Add</i>	471.12	
<i>For Class 55 Rating, Add</i>	1,047.15	
40 05 19 00-0384 EA 24" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,913.60	962.58
<i>For Class 52 Rating, Deduct</i>	-710.07	
<i>For Class 54 Rating, Add</i>	484.14	
<i>For Class 55 Rating, Add</i>	1,076.07	
40 05 19 00-0385 EA 24" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,091.71	965.62
<i>For Class 52 Rating, Deduct</i>	-729.15	
<i>For Class 54 Rating, Add</i>	497.15	
<i>For Class 55 Rating, Add</i>	1,104.99	
40 05 19 00-0386 EA 24" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,269.83	968.67
<i>For Class 52 Rating, Deduct</i>	-748.24	
<i>For Class 54 Rating, Add</i>	510.16	
<i>For Class 55 Rating, Add</i>	1,133.92	
40 05 19 00-0387 EA 24" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,447.95	971.72
<i>For Class 52 Rating, Deduct</i>	-767.32	
<i>For Class 54 Rating, Add</i>	523.17	
<i>For Class 55 Rating, Add</i>	1,162.84	
40 05 19 00-0388 EA 24" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,626.07	974.76
<i>For Class 52 Rating, Deduct</i>	-786.41	
<i>For Class 54 Rating, Add</i>	536.19	
<i>For Class 55 Rating, Add</i>	1,191.76	
40 05 19 00-0389 EA 24" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,882.65	1,029.60
<i>For Class 52 Rating, Deduct</i>	-805.49	
<i>For Class 54 Rating, Add</i>	549.20	
<i>For Class 55 Rating, Add</i>	1,220.69	
40 05 19 00-0390 EA 24" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,060.77	1,032.64
<i>For Class 52 Rating, Deduct</i>	-824.58	
<i>For Class 54 Rating, Add</i>	562.21	
<i>For Class 55 Rating, Add</i>	1,249.61	
40 05 19 00-0391 EA 24" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,238.88	1,035.69
<i>For Class 52 Rating, Deduct</i>	-843.66	
<i>For Class 54 Rating, Add</i>	575.22	
<i>For Class 55 Rating, Add</i>	1,278.53	
40 05 19 00-0392 EA 24" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,417.01	1,038.74
<i>For Class 52 Rating, Deduct</i>	-862.75	
<i>For Class 54 Rating, Add</i>	588.24	
<i>For Class 55 Rating, Add</i>	1,307.46	
40 05 19 00-0393 EA 24" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,595.12	1,041.78
<i>For Class 52 Rating, Deduct</i>	-881.83	
<i>For Class 54 Rating, Add</i>	601.25	
<i>For Class 55 Rating, Add</i>	1,336.38	
40 05 19 00-0394 EA 24" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,773.24	1,044.83
<i>For Class 52 Rating, Deduct</i>	-900.92	
<i>For Class 54 Rating, Add</i>	614.26	
<i>For Class 55 Rating, Add</i>	1,365.30	
40 05 19 00-0395 EA 24" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,951.36	1,047.88
<i>For Class 52 Rating, Deduct</i>	-920.00	
<i>For Class 54 Rating, Add</i>	627.28	
<i>For Class 55 Rating, Add</i>	1,394.23	
40 05 19 00-0396 EA 24" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,129.48	1,050.91
<i>For Class 52 Rating, Deduct</i>	-939.09	
<i>For Class 54 Rating, Add</i>	640.29	
<i>For Class 55 Rating, Add</i>	1,423.15	
40 05 19 00-0397 EA 24" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,307.60	1,053.96
<i>For Class 52 Rating, Deduct</i>	-958.17	
<i>For Class 54 Rating, Add</i>	653.30	
<i>For Class 55 Rating, Add</i>	1,452.07	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0398		30" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0002)</small>		
40 05 19 00-0399	EA	30" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,544.09	1,255.01
		<i>For Class 52 Rating, Deduct</i>	-400.68	
		<i>For Class 54 Rating, Add</i>	273.19	
		<i>For Class 55 Rating, Add</i>	607.21	
40 05 19 00-0400	EA	30" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,799.31	1,258.06
		<i>For Class 52 Rating, Deduct</i>	-428.25	
		<i>For Class 54 Rating, Add</i>	291.99	
		<i>For Class 55 Rating, Add</i>	648.99	
40 05 19 00-0401	EA	30" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,054.55	1,261.10
		<i>For Class 52 Rating, Deduct</i>	-455.82	
		<i>For Class 54 Rating, Add</i>	310.78	
		<i>For Class 55 Rating, Add</i>	690.77	
40 05 19 00-0402	EA	30" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,309.79	1,264.15
		<i>For Class 52 Rating, Deduct</i>	-483.39	
		<i>For Class 54 Rating, Add</i>	329.58	
		<i>For Class 55 Rating, Add</i>	732.55	
40 05 19 00-0403	EA	30" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,565.01	1,267.20
		<i>For Class 52 Rating, Deduct</i>	-510.95	
		<i>For Class 54 Rating, Add</i>	348.38	
		<i>For Class 55 Rating, Add</i>	774.32	
40 05 19 00-0404	EA	30" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,820.24	1,270.24
		<i>For Class 52 Rating, Deduct</i>	-538.52	
		<i>For Class 54 Rating, Add</i>	367.17	
		<i>For Class 55 Rating, Add</i>	816.10	
40 05 19 00-0405	EA	30" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,075.47	1,273.28
		<i>For Class 52 Rating, Deduct</i>	-566.09	
		<i>For Class 54 Rating, Add</i>	385.97	
		<i>For Class 55 Rating, Add</i>	857.88	
40 05 19 00-0406	EA	30" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,330.71	1,276.33
		<i>For Class 52 Rating, Deduct</i>	-593.66	
		<i>For Class 54 Rating, Add</i>	404.77	
		<i>For Class 55 Rating, Add</i>	899.66	
40 05 19 00-0407	EA	30" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,585.94	1,279.37
		<i>For Class 52 Rating, Deduct</i>	-621.22	
		<i>For Class 54 Rating, Add</i>	423.56	
		<i>For Class 55 Rating, Add</i>	941.44	
40 05 19 00-0408	EA	30" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,841.16	1,282.42
		<i>For Class 52 Rating, Deduct</i>	-648.79	
		<i>For Class 54 Rating, Add</i>	442.36	
		<i>For Class 55 Rating, Add</i>	983.21	
40 05 19 00-0409	EA	30" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,096.41	1,285.47
		<i>For Class 52 Rating, Deduct</i>	-676.36	
		<i>For Class 54 Rating, Add</i>	461.15	
		<i>For Class 55 Rating, Add</i>	1,024.99	
40 05 19 00-0410	EA	30" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,351.63	1,288.51
		<i>For Class 52 Rating, Deduct</i>	-703.93	
		<i>For Class 54 Rating, Add</i>	479.95	
		<i>For Class 55 Rating, Add</i>	1,066.77	
40 05 19 00-0411	EA	30" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,606.86	1,291.56
		<i>For Class 52 Rating, Deduct</i>	-731.49	
		<i>For Class 54 Rating, Add</i>	498.75	
		<i>For Class 55 Rating, Add</i>	1,108.55	
40 05 19 00-0412	EA	30" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,862.10	1,294.61
		<i>For Class 52 Rating, Deduct</i>	-759.06	
		<i>For Class 54 Rating, Add</i>	517.54	
		<i>For Class 55 Rating, Add</i>	1,150.33	
40 05 19 00-0413	EA	30" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	9,117.33	1,297.66
		<i>For Class 52 Rating, Deduct</i>	-786.63	
		<i>For Class 54 Rating, Add</i>	536.34	
		<i>For Class 55 Rating, Add</i>	1,192.10	
40 05 19 00-0414	EA	30" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	9,372.56	1,300.70
		<i>For Class 52 Rating, Deduct</i>	-814.20	
		<i>For Class 54 Rating, Add</i>	555.14	
		<i>For Class 55 Rating, Add</i>	1,233.88	
40 05 19 00-0415	EA	30" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	9,627.78	1,303.75
		<i>For Class 52 Rating, Deduct</i>	-841.77	
		<i>For Class 54 Rating, Add</i>	573.93	
		<i>For Class 55 Rating, Add</i>	1,275.66	
40 05 19 00-0416	EA	30" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	9,883.02	1,306.80
		<i>For Class 52 Rating, Deduct</i>	-869.33	
		<i>For Class 54 Rating, Add</i>	592.73	
		<i>For Class 55 Rating, Add</i>	1,317.44	
40 05 19 00-0417	EA	30" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	10,138.26	1,309.84
		<i>For Class 52 Rating, Deduct</i>	-896.90	
		<i>For Class 54 Rating, Add</i>	611.52	
		<i>For Class 55 Rating, Add</i>	1,359.21	
40 05 19 00-0418	EA	30" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	10,393.48	1,312.89
		<i>For Class 52 Rating, Deduct</i>	-924.47	
		<i>For Class 54 Rating, Add</i>	630.32	
		<i>For Class 55 Rating, Add</i>	1,400.99	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0419 EA 30" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	10,648.72 -952.04 649.12 1,442.77	1,315.94
40 05 19 00-0420 EA 30" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	10,903.95 -979.61 667.91 1,484.55	1,318.97
40 05 19 00-0421 EA 30" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	11,159.18 -1,007.17 686.71 1,526.32	1,322.02
40 05 19 00-0422 EA 30" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	11,414.41 -1,034.74 705.50 1,568.10	1,325.07
40 05 19 00-0423 EA 30" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	11,668.63 -1,062.20 724.22 1,609.71	1,328.11
40 05 19 00-0424 EA 30" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	11,924.87 -1,089.88 743.10 1,651.66	1,331.16
40 05 19 00-0425 EA 30" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	12,180.11 -1,117.44 761.89 1,693.44	1,334.21
40 05 19 00-0426 EA 30" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	12,435.34 -1,145.01 780.69 1,735.21	1,337.25
40 05 19 00-0427 EA 30" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	12,690.57 -1,172.58 799.49 1,776.99	1,340.30
40 05 19 00-0428 EA 30" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	12,945.79 -1,200.15 818.28 1,818.77	1,343.35
40 05 19 00-0429 EA 30" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	13,201.03 -1,227.71 837.08 1,860.55	1,346.39
40 05 19 00-0430 EA 30" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	13,456.27 -1,255.28 855.87 1,902.32	1,349.44
40 05 19 00-0431 EA 30" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	13,711.49 -1,282.85 874.67 1,944.10	1,352.49
40 05 19 00-0432 EA 30" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	13,966.72 -1,310.42 893.47 1,985.88	1,355.54
40 05 19 00-0433 EA 30" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	14,221.96 -1,337.99 912.26 2,027.66	1,358.58
40 05 19 00-0434 EA 30" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	14,477.19 -1,365.55 931.06 2,069.43	1,361.63
40 05 19 00-0435 EA 30" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	14,732.42 -1,393.12 949.86 2,111.21	1,364.67
40 05 19 00-0436 EA 30" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	14,987.64 -1,420.69 968.65 2,152.99	1,367.71
40 05 19 00-0437 36" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0002)</small>		
40 05 19 00-0438 EA 36" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	7,621.43 -573.34 390.92 868.88	1,590.08
40 05 19 00-0439 EA 36" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <i>For Class 52 Rating, Deduct</i> <i>For Class 54 Rating, Add</i> <i>For Class 55 Rating, Add</i>	7,966.95 -610.84 416.48 925.71	1,593.13

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0440	EA		36" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,312.49	1,596.17
			<i>For Class 52 Rating, Deduct</i>	-648.34	
			<i>For Class 54 Rating, Add</i>	442.05	
			<i>For Class 55 Rating, Add</i>	982.54	
40 05 19 00-0441	EA		36" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,658.03	1,599.22
			<i>For Class 52 Rating, Deduct</i>	-685.85	
			<i>For Class 54 Rating, Add</i>	467.62	
			<i>For Class 55 Rating, Add</i>	1,039.37	
40 05 19 00-0442	EA		36" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	9,003.56	1,602.27
			<i>For Class 52 Rating, Deduct</i>	-723.35	
			<i>For Class 54 Rating, Add</i>	493.19	
			<i>For Class 55 Rating, Add</i>	1,096.20	
40 05 19 00-0443	EA		36" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	9,349.09	1,605.31
			<i>For Class 52 Rating, Deduct</i>	-760.85	
			<i>For Class 54 Rating, Add</i>	518.76	
			<i>For Class 55 Rating, Add</i>	1,153.03	
40 05 19 00-0444	EA		36" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	9,694.63	1,608.36
			<i>For Class 52 Rating, Deduct</i>	-798.35	
			<i>For Class 54 Rating, Add</i>	544.33	
			<i>For Class 55 Rating, Add</i>	1,209.86	
40 05 19 00-0445	EA		36" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	10,040.17	1,611.41
			<i>For Class 52 Rating, Deduct</i>	-835.85	
			<i>For Class 54 Rating, Add</i>	569.90	
			<i>For Class 55 Rating, Add</i>	1,266.69	
40 05 19 00-0446	EA		36" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	10,385.70	1,614.45
			<i>For Class 52 Rating, Deduct</i>	-873.35	
			<i>For Class 54 Rating, Add</i>	595.47	
			<i>For Class 55 Rating, Add</i>	1,323.52	
40 05 19 00-0447	EA		36" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	10,731.23	1,617.50
			<i>For Class 52 Rating, Deduct</i>	-910.85	
			<i>For Class 54 Rating, Add</i>	621.04	
			<i>For Class 55 Rating, Add</i>	1,380.36	
40 05 19 00-0448	EA		36" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	11,076.78	1,620.55
			<i>For Class 52 Rating, Deduct</i>	-948.35	
			<i>For Class 54 Rating, Add</i>	646.61	
			<i>For Class 55 Rating, Add</i>	1,437.19	
40 05 19 00-0449	EA		36" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	11,422.31	1,623.60
			<i>For Class 52 Rating, Deduct</i>	-985.86	
			<i>For Class 54 Rating, Add</i>	672.17	
			<i>For Class 55 Rating, Add</i>	1,494.02	
40 05 19 00-0450	EA		36" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	11,767.83	1,626.64
			<i>For Class 52 Rating, Deduct</i>	-1,023.36	
			<i>For Class 54 Rating, Add</i>	697.74	
			<i>For Class 55 Rating, Add</i>	1,550.85	
40 05 19 00-0451	EA		36" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	12,113.36	1,629.69
			<i>For Class 52 Rating, Deduct</i>	-1,060.86	
			<i>For Class 54 Rating, Add</i>	723.31	
			<i>For Class 55 Rating, Add</i>	1,607.68	
40 05 19 00-0452	EA		36" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	12,458.91	1,632.73
			<i>For Class 52 Rating, Deduct</i>	-1,098.36	
			<i>For Class 54 Rating, Add</i>	748.88	
			<i>For Class 55 Rating, Add</i>	1,664.51	
40 05 19 00-0453	EA		36" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	12,804.44	1,635.77
			<i>For Class 52 Rating, Deduct</i>	-1,135.86	
			<i>For Class 54 Rating, Add</i>	774.45	
			<i>For Class 55 Rating, Add</i>	1,721.34	
40 05 19 00-0454	EA		36" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	13,149.97	1,638.82
			<i>For Class 52 Rating, Deduct</i>	-1,173.36	
			<i>For Class 54 Rating, Add</i>	800.02	
			<i>For Class 55 Rating, Add</i>	1,778.17	
40 05 19 00-0455	EA		36" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	13,495.51	1,641.87
			<i>For Class 52 Rating, Deduct</i>	-1,210.86	
			<i>For Class 54 Rating, Add</i>	825.59	
			<i>For Class 55 Rating, Add</i>	1,835.01	
40 05 19 00-0456	EA		36" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	13,841.05	1,644.91
			<i>For Class 52 Rating, Deduct</i>	-1,248.36	
			<i>For Class 54 Rating, Add</i>	851.16	
			<i>For Class 55 Rating, Add</i>	1,891.84	
40 05 19 00-0457	EA		36" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	14,186.58	1,647.96
			<i>For Class 52 Rating, Deduct</i>	-1,285.86	
			<i>For Class 54 Rating, Add</i>	876.73	
			<i>For Class 55 Rating, Add</i>	1,948.67	
40 05 19 00-0458	EA		36" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	14,532.12	1,651.01
			<i>For Class 52 Rating, Deduct</i>	-1,323.36	
			<i>For Class 54 Rating, Add</i>	902.29	
			<i>For Class 55 Rating, Add</i>	2,005.50	
40 05 19 00-0459	EA		36" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	14,877.65	1,654.05
			<i>For Class 52 Rating, Deduct</i>	-1,360.87	
			<i>For Class 54 Rating, Add</i>	927.86	
			<i>For Class 55 Rating, Add</i>	2,062.33	
40 05 19 00-0460	EA		36" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	15,223.18	1,657.10
			<i>For Class 52 Rating, Deduct</i>	-1,398.37	
			<i>For Class 54 Rating, Add</i>	953.43	
			<i>For Class 55 Rating, Add</i>	2,119.16	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0461 EA 36" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,568.71	1,660.15
For Class 52 Rating, Deduct	-1,435.87	
For Class 54 Rating, Add	979.00	
For Class 55 Rating, Add	2,175.99	
40 05 19 00-0462 EA 36" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,914.25	1,663.19
For Class 52 Rating, Deduct	-1,473.37	
For Class 54 Rating, Add	1,004.57	
For Class 55 Rating, Add	2,232.82	
40 05 19 00-0463 EA 36" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,259.78	1,666.24
For Class 52 Rating, Deduct	-1,510.87	
For Class 54 Rating, Add	1,030.14	
For Class 55 Rating, Add	2,289.65	
40 05 19 00-0464 EA 36" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,605.32	1,669.29
For Class 52 Rating, Deduct	-1,548.37	
For Class 54 Rating, Add	1,055.71	
For Class 55 Rating, Add	2,346.49	
40 05 19 00-0465 EA 36" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,950.86	1,672.33
For Class 52 Rating, Deduct	-1,585.87	
For Class 54 Rating, Add	1,081.28	
For Class 55 Rating, Add	2,403.32	
40 05 19 00-0466 EA 36" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,296.39	1,675.37
For Class 52 Rating, Deduct	-1,623.37	
For Class 54 Rating, Add	1,106.85	
For Class 55 Rating, Add	2,460.15	
40 05 19 00-0467 EA 36" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,641.92	1,678.42
For Class 52 Rating, Deduct	-1,660.87	
For Class 54 Rating, Add	1,132.41	
For Class 55 Rating, Add	2,516.98	
40 05 19 00-0468 EA 36" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,987.46	1,681.46
For Class 52 Rating, Deduct	-1,698.38	
For Class 54 Rating, Add	1,157.98	
For Class 55 Rating, Add	2,573.81	
40 05 19 00-0469 EA 36" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,333.00	1,684.51
For Class 52 Rating, Deduct	-1,735.88	
For Class 54 Rating, Add	1,183.55	
For Class 55 Rating, Add	2,630.64	
40 05 19 00-0470 EA 36" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,678.53	1,687.56
For Class 52 Rating, Deduct	-1,773.38	
For Class 54 Rating, Add	1,209.12	
For Class 55 Rating, Add	2,687.47	
40 05 19 00-0471 EA 36" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,024.05	1,690.61
For Class 52 Rating, Deduct	-1,810.88	
For Class 54 Rating, Add	1,234.69	
For Class 55 Rating, Add	2,744.30	
40 05 19 00-0472 EA 36" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,369.59	1,693.65
For Class 52 Rating, Deduct	-1,848.38	
For Class 54 Rating, Add	1,260.26	
For Class 55 Rating, Add	2,801.14	
40 05 19 00-0473 EA 36" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,715.13	1,696.70
For Class 52 Rating, Deduct	-1,885.88	
For Class 54 Rating, Add	1,285.83	
For Class 55 Rating, Add	2,857.97	
40 05 19 00-0474 EA 36" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,060.66	1,699.75
For Class 52 Rating, Deduct	-1,923.38	
For Class 54 Rating, Add	1,311.40	
For Class 55 Rating, Add	2,914.80	
40 05 19 00-0475 EA 36" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,406.19	1,702.79
For Class 52 Rating, Deduct	-1,960.88	
For Class 54 Rating, Add	1,336.97	
For Class 55 Rating, Add	2,971.63	
40 05 19 00-0476 42" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0002)</small>		
40 05 19 00-0477 EA 42" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,990.24	2,004.36
For Class 52 Rating, Deduct	-764.87	
For Class 54 Rating, Add	521.50	
For Class 55 Rating, Add	1,159.12	
40 05 19 00-0478 EA 42" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,504.21	2,007.40
For Class 52 Rating, Deduct	-820.89	
For Class 54 Rating, Add	559.70	
For Class 55 Rating, Add	1,244.03	
40 05 19 00-0479 EA 42" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,012.08	2,010.45
For Class 52 Rating, Deduct	-876.25	
For Class 54 Rating, Add	597.45	
For Class 55 Rating, Add	1,327.92	
40 05 19 00-0480 EA 42" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,525.02	2,013.50
For Class 52 Rating, Deduct	-932.17	
For Class 54 Rating, Add	635.57	
For Class 55 Rating, Add	1,412.66	
40 05 19 00-0481 EA 42" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,032.90	2,016.55
For Class 52 Rating, Deduct	-987.53	
For Class 54 Rating, Add	673.31	
For Class 55 Rating, Add	1,496.55	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0482	EA		42" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	12,546.87	2,019.59
			<i>For Class 52 Rating, Deduct</i>	-1,043.56	
			<i>For Class 54 Rating, Add</i>	711.52	
			<i>For Class 55 Rating, Add</i>	1,581.46	
40 05 19 00-0483	EA		42" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	13,053.73	2,022.64
			<i>For Class 52 Rating, Deduct</i>	-1,098.80	
			<i>For Class 54 Rating, Add</i>	749.18	
			<i>For Class 55 Rating, Add</i>	1,665.19	
40 05 19 00-0484	EA		42" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	13,567.69	2,025.69
			<i>For Class 52 Rating, Deduct</i>	-1,154.83	
			<i>For Class 54 Rating, Add</i>	787.39	
			<i>For Class 55 Rating, Add</i>	1,750.10	
40 05 19 00-0485	EA		42" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	14,075.58	2,028.73
			<i>For Class 52 Rating, Deduct</i>	-1,210.19	
			<i>For Class 54 Rating, Add</i>	825.13	
			<i>For Class 55 Rating, Add</i>	1,833.99	
40 05 19 00-0486	EA		42" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	14,588.53	2,031.78
			<i>For Class 52 Rating, Deduct</i>	-1,266.11	
			<i>For Class 54 Rating, Add</i>	863.26	
			<i>For Class 55 Rating, Add</i>	1,918.73	
40 05 19 00-0487	EA		42" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	15,096.40	2,034.82
			<i>For Class 52 Rating, Deduct</i>	-1,321.47	
			<i>For Class 54 Rating, Add</i>	901.00	
			<i>For Class 55 Rating, Add</i>	2,002.62	
40 05 19 00-0488	EA		42" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	15,609.34	2,037.86
			<i>For Class 52 Rating, Deduct</i>	-1,377.38	
			<i>For Class 54 Rating, Add</i>	939.13	
			<i>For Class 55 Rating, Add</i>	2,087.36	
40 05 19 00-0489	EA		42" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	16,117.22	2,040.91
			<i>For Class 52 Rating, Deduct</i>	-1,432.74	
			<i>For Class 54 Rating, Add</i>	976.87	
			<i>For Class 55 Rating, Add</i>	2,171.26	
40 05 19 00-0490	EA		42" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	16,626.12	2,043.96
			<i>For Class 52 Rating, Deduct</i>	-1,488.21	
			<i>For Class 54 Rating, Add</i>	1,014.69	
			<i>For Class 55 Rating, Add</i>	2,255.32	
40 05 19 00-0491	EA		42" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	17,138.05	2,047.00
			<i>For Class 52 Rating, Deduct</i>	-1,544.02	
			<i>For Class 54 Rating, Add</i>	1,052.74	
			<i>For Class 55 Rating, Add</i>	2,339.89	
40 05 19 00-0492	EA		42" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	17,645.93	2,050.05
			<i>For Class 52 Rating, Deduct</i>	-1,599.38	
			<i>For Class 54 Rating, Add</i>	1,090.48	
			<i>For Class 55 Rating, Add</i>	2,423.78	
40 05 19 00-0493	EA		42" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	18,159.89	2,053.10
			<i>For Class 52 Rating, Deduct</i>	-1,655.41	
			<i>For Class 54 Rating, Add</i>	1,128.69	
			<i>For Class 55 Rating, Add</i>	2,508.69	
40 05 19 00-0494	EA		42" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	18,667.77	2,056.14
			<i>For Class 52 Rating, Deduct</i>	-1,710.76	
			<i>For Class 54 Rating, Add</i>	1,166.43	
			<i>For Class 55 Rating, Add</i>	2,592.59	
40 05 19 00-0495	EA		42" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	19,180.72	2,059.19
			<i>For Class 52 Rating, Deduct</i>	-1,766.68	
			<i>For Class 54 Rating, Add</i>	1,204.56	
			<i>For Class 55 Rating, Add</i>	2,677.33	
40 05 19 00-0496	EA		42" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	19,688.60	2,062.24
			<i>For Class 52 Rating, Deduct</i>	-1,822.04	
			<i>For Class 54 Rating, Add</i>	1,242.30	
			<i>For Class 55 Rating, Add</i>	2,761.22	
40 05 19 00-0497	EA		42" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	20,202.56	2,065.28
			<i>For Class 52 Rating, Deduct</i>	-1,878.07	
			<i>For Class 54 Rating, Add</i>	1,280.50	
			<i>For Class 55 Rating, Add</i>	2,846.13	
40 05 19 00-0498	EA		42" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	20,710.44	2,068.33
			<i>For Class 52 Rating, Deduct</i>	-1,933.43	
			<i>For Class 54 Rating, Add</i>	1,318.25	
			<i>For Class 55 Rating, Add</i>	2,930.02	
40 05 19 00-0499	EA		42" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	21,223.39	2,071.38
			<i>For Class 52 Rating, Deduct</i>	-1,989.34	
			<i>For Class 54 Rating, Add</i>	1,356.37	
			<i>For Class 55 Rating, Add</i>	3,014.76	
40 05 19 00-0500	EA		42" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	21,731.26	2,074.42
			<i>For Class 52 Rating, Deduct</i>	-2,044.70	
			<i>For Class 54 Rating, Add</i>	1,394.12	
			<i>For Class 55 Rating, Add</i>	3,098.65	
40 05 19 00-0501	EA		42" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	22,245.22	2,077.46
			<i>For Class 52 Rating, Deduct</i>	-2,100.73	
			<i>For Class 54 Rating, Add</i>	1,432.32	
			<i>For Class 55 Rating, Add</i>	3,183.56	
40 05 19 00-0502	EA		42" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	22,753.11	2,080.51
			<i>For Class 52 Rating, Deduct</i>	-2,156.09	
			<i>For Class 54 Rating, Add</i>	1,470.06	
			<i>For Class 55 Rating, Add</i>	3,267.46	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0503 EA 42" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	23,265.05	2,083.56
<i>For Class 52 Rating, Deduct</i>	-2,211.90	
<i>For Class 54 Rating, Add</i>	1,508.11	
<i>For Class 55 Rating, Add</i>	3,352.03	
40 05 19 00-0504 EA 42" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	23,773.93	2,086.60
<i>For Class 52 Rating, Deduct</i>	-2,267.37	
<i>For Class 54 Rating, Add</i>	1,545.93	
<i>For Class 55 Rating, Add</i>	3,436.09	
40 05 19 00-0505 EA 42" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	24,180.34	2,089.65
<i>For Class 52 Rating, Deduct</i>	-2,311.56	
<i>For Class 54 Rating, Add</i>	1,576.07	
<i>For Class 55 Rating, Add</i>	3,503.07	
40 05 19 00-0506 EA 42" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	24,794.77	2,092.70
<i>For Class 52 Rating, Deduct</i>	-2,378.64	
<i>For Class 54 Rating, Add</i>	1,621.80	
<i>For Class 55 Rating, Add</i>	3,604.72	
40 05 19 00-0507 EA 42" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	25,302.64	2,095.74
<i>For Class 52 Rating, Deduct</i>	-2,434.00	
<i>For Class 54 Rating, Add</i>	1,659.55	
<i>For Class 55 Rating, Add</i>	3,688.62	
40 05 19 00-0508 EA 42" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	25,815.58	2,098.79
<i>For Class 52 Rating, Deduct</i>	-2,489.92	
<i>For Class 54 Rating, Add</i>	1,697.67	
<i>For Class 55 Rating, Add</i>	3,773.35	
40 05 19 00-0509 EA 42" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	26,323.47	2,101.84
<i>For Class 52 Rating, Deduct</i>	-2,545.28	
<i>For Class 54 Rating, Add</i>	1,735.42	
<i>For Class 55 Rating, Add</i>	3,857.25	
40 05 19 00-0510 EA 42" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	26,837.43	2,104.88
<i>For Class 52 Rating, Deduct</i>	-2,601.30	
<i>For Class 54 Rating, Add</i>	1,773.62	
<i>For Class 55 Rating, Add</i>	3,942.16	
40 05 19 00-0511 EA 42" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	27,344.29	2,107.93
<i>For Class 52 Rating, Deduct</i>	-2,656.55	
<i>For Class 54 Rating, Add</i>	1,811.28	
<i>For Class 55 Rating, Add</i>	4,025.88	
40 05 19 00-0512 EA 42" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	27,858.25	2,110.98
<i>For Class 52 Rating, Deduct</i>	-2,712.58	
<i>For Class 54 Rating, Add</i>	1,849.49	
<i>For Class 55 Rating, Add</i>	4,110.79	
40 05 19 00-0513 EA 42" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	28,366.13	2,114.02
<i>For Class 52 Rating, Deduct</i>	-2,767.94	
<i>For Class 54 Rating, Add</i>	1,887.23	
<i>For Class 55 Rating, Add</i>	4,194.68	
40 05 19 00-0514 EA 42" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	28,879.09	2,117.07
<i>For Class 52 Rating, Deduct</i>	-2,823.86	
<i>For Class 54 Rating, Add</i>	1,925.36	
<i>For Class 55 Rating, Add</i>	4,279.42	
40 05 19 00-0515 48" Flanged End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0002)</small>		
40 05 19 00-0516 EA 48" Flanged (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,534.69	2,519.16
<i>For Class 52 Rating, Deduct</i>	-958.96	
<i>For Class 54 Rating, Add</i>	653.83	
<i>For Class 55 Rating, Add</i>	1,453.26	
40 05 19 00-0517 EA 48" Flanged (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,281.01	2,522.21
<i>For Class 52 Rating, Deduct</i>	-1,040.54	
<i>For Class 54 Rating, Add</i>	709.46	
<i>For Class 55 Rating, Add</i>	1,576.90	
40 05 19 00-0518 EA 48" Flanged (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,026.32	2,525.24
<i>For Class 52 Rating, Deduct</i>	-1,122.02	
<i>For Class 54 Rating, Add</i>	765.01	
<i>For Class 55 Rating, Add</i>	1,700.37	
40 05 19 00-0519 EA 48" Flanged (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,777.70	2,528.29
<i>For Class 52 Rating, Deduct</i>	-1,204.16	
<i>For Class 54 Rating, Add</i>	821.02	
<i>For Class 55 Rating, Add</i>	1,824.86	
40 05 19 00-0520 EA 48" Flanged (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,524.01	2,531.34
<i>For Class 52 Rating, Deduct</i>	-1,285.75	
<i>For Class 54 Rating, Add</i>	876.65	
<i>For Class 55 Rating, Add</i>	1,948.50	
40 05 19 00-0521 EA 48" Flanged (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,270.33	2,534.38
<i>For Class 52 Rating, Deduct</i>	-1,367.34	
<i>For Class 54 Rating, Add</i>	932.28	
<i>For Class 55 Rating, Add</i>	2,072.14	
40 05 19 00-0522 EA 48" Flanged (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,020.72	2,537.43
<i>For Class 52 Rating, Deduct</i>	-1,449.37	
<i>For Class 54 Rating, Add</i>	988.21	
<i>For Class 55 Rating, Add</i>	2,196.46	
40 05 19 00-0523 EA 48" Flanged (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,768.04	2,540.48
<i>For Class 52 Rating, Deduct</i>	-1,531.07	
<i>For Class 54 Rating, Add</i>	1,043.91	
<i>For Class 55 Rating, Add</i>	2,320.27	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0524	EA		48" Flanged (FxF), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	18,513.35	2,543.53
			<i>For Class 52 Rating, Deduct</i>	-1,612.55	
			<i>For Class 54 Rating, Add</i>	1,099.46	
			<i>For Class 55 Rating, Add</i>	2,443.74	
40 05 19 00-0525	EA		48" Flanged (FxF), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	19,264.73	2,546.57
			<i>For Class 52 Rating, Deduct</i>	-1,694.69	
			<i>For Class 54 Rating, Add</i>	1,155.47	
			<i>For Class 55 Rating, Add</i>	2,568.23	
40 05 19 00-0526	EA		48" Flanged (FxF), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	20,011.05	2,549.62
			<i>For Class 52 Rating, Deduct</i>	-1,776.28	
			<i>For Class 54 Rating, Add</i>	1,211.10	
			<i>For Class 55 Rating, Add</i>	2,691.87	
40 05 19 00-0527	EA		48" Flanged (FxF), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	20,762.45	2,552.67
			<i>For Class 52 Rating, Deduct</i>	-1,858.42	
			<i>For Class 54 Rating, Add</i>	1,267.11	
			<i>For Class 55 Rating, Add</i>	2,816.36	
40 05 19 00-0528	EA		48" Flanged (FxF), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	21,507.75	2,555.71
			<i>For Class 52 Rating, Deduct</i>	-1,939.90	
			<i>For Class 54 Rating, Add</i>	1,322.66	
			<i>For Class 55 Rating, Add</i>	2,939.83	
40 05 19 00-0529	EA		48" Flanged (FxF), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	22,254.06	2,558.76
			<i>For Class 52 Rating, Deduct</i>	-2,021.49	
			<i>For Class 54 Rating, Add</i>	1,378.29	
			<i>For Class 55 Rating, Add</i>	3,063.47	
40 05 19 00-0530	EA		48" Flanged (FxF), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	23,005.44	2,561.81
			<i>For Class 52 Rating, Deduct</i>	-2,103.63	
			<i>For Class 54 Rating, Add</i>	1,434.29	
			<i>For Class 55 Rating, Add</i>	3,187.96	
40 05 19 00-0531	EA		48" Flanged (FxF), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	23,751.78	2,564.85
			<i>For Class 52 Rating, Deduct</i>	-2,185.22	
			<i>For Class 54 Rating, Add</i>	1,489.92	
			<i>For Class 55 Rating, Add</i>	3,311.60	
40 05 19 00-0532	EA		48" Flanged (FxF), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	24,497.07	2,567.90
			<i>For Class 52 Rating, Deduct</i>	-2,266.70	
			<i>For Class 54 Rating, Add</i>	1,545.47	
			<i>For Class 55 Rating, Add</i>	3,435.07	
40 05 19 00-0533	EA		48" Flanged (FxF), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	25,248.46	2,570.94
			<i>For Class 52 Rating, Deduct</i>	-2,348.84	
			<i>For Class 54 Rating, Add</i>	1,601.48	
			<i>For Class 55 Rating, Add</i>	3,559.56	
40 05 19 00-0534	EA		48" Flanged (FxF), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	25,994.78	2,573.98
			<i>For Class 52 Rating, Deduct</i>	-2,430.43	
			<i>For Class 54 Rating, Add</i>	1,657.11	
			<i>For Class 55 Rating, Add</i>	3,683.20	
40 05 19 00-0535	EA		48" Flanged (FxF), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	26,740.09	2,577.03
			<i>For Class 52 Rating, Deduct</i>	-2,511.90	
			<i>For Class 54 Rating, Add</i>	1,712.66	
			<i>For Class 55 Rating, Add</i>	3,806.68	
40 05 19 00-0536	EA		48" Flanged (FxF), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	27,491.47	2,580.08
			<i>For Class 52 Rating, Deduct</i>	-2,594.05	
			<i>For Class 54 Rating, Add</i>	1,768.67	
			<i>For Class 55 Rating, Add</i>	3,931.16	
40 05 19 00-0537	EA		48" Flanged (FxF), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	28,238.80	2,583.12
			<i>For Class 52 Rating, Deduct</i>	-2,675.75	
			<i>For Class 54 Rating, Add</i>	1,824.37	
			<i>For Class 55 Rating, Add</i>	4,054.97	
40 05 19 00-0538	EA		48" Flanged (FxF), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	28,984.11	2,586.17
			<i>For Class 52 Rating, Deduct</i>	-2,757.22	
			<i>For Class 54 Rating, Add</i>	1,879.93	
			<i>For Class 55 Rating, Add</i>	4,178.45	
40 05 19 00-0539	EA		48" Flanged (FxF), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	29,735.50	2,589.22
			<i>For Class 52 Rating, Deduct</i>	-2,839.37	
			<i>For Class 54 Rating, Add</i>	1,935.93	
			<i>For Class 55 Rating, Add</i>	4,302.93	
40 05 19 00-0540	EA		48" Flanged (FxF), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	30,481.81	2,592.26
			<i>For Class 52 Rating, Deduct</i>	-2,920.96	
			<i>For Class 54 Rating, Add</i>	1,991.56	
			<i>For Class 55 Rating, Add</i>	4,426.58	
40 05 19 00-0541	EA		48" Flanged (FxF), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	31,227.12	2,595.31
			<i>For Class 52 Rating, Deduct</i>	-3,002.43	
			<i>For Class 54 Rating, Add</i>	2,047.11	
			<i>For Class 55 Rating, Add</i>	4,550.05	
40 05 19 00-0542	EA		48" Flanged (FxF), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	31,978.51	2,598.36
			<i>For Class 52 Rating, Deduct</i>	-3,084.58	
			<i>For Class 54 Rating, Add</i>	2,103.12	
			<i>For Class 55 Rating, Add</i>	4,674.54	
40 05 19 00-0543	EA		48" Flanged (FxF), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	32,724.83	2,601.40
			<i>For Class 52 Rating, Deduct</i>	-3,166.16	
			<i>For Class 54 Rating, Add</i>	2,158.75	
			<i>For Class 55 Rating, Add</i>	4,798.18	
40 05 19 00-0544	EA		48" Flanged (FxF), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	33,379.82	2,604.45
			<i>For Class 52 Rating, Deduct</i>	-3,237.71	
			<i>For Class 54 Rating, Add</i>	2,207.53	
			<i>For Class 55 Rating, Add</i>	4,906.60	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0545 EA 48" Flanged (FxF), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	34,222.53	2,607.50
<i>For Class 52 Rating, Deduct</i>	-3,329.90	
<i>For Class 54 Rating, Add</i>	2,270.38	
<i>For Class 55 Rating, Add</i>	5,046.31	
40 05 19 00-0546 EA 48" Flanged (FxF), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	34,967.83	2,610.55
<i>For Class 52 Rating, Deduct</i>	-3,411.37	
<i>For Class 54 Rating, Add</i>	2,325.94	
<i>For Class 55 Rating, Add</i>	5,169.78	
40 05 19 00-0547 EA 48" Flanged (FxF), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	35,720.24	2,613.58
<i>For Class 52 Rating, Deduct</i>	-3,493.63	
<i>For Class 54 Rating, Add</i>	2,382.02	
<i>For Class 55 Rating, Add</i>	5,294.44	
40 05 19 00-0548 EA 48" Flanged (FxF), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	36,465.55	2,616.63
<i>For Class 52 Rating, Deduct</i>	-3,575.10	
<i>For Class 54 Rating, Add</i>	2,437.57	
<i>For Class 55 Rating, Add</i>	5,417.91	
40 05 19 00-0549 EA 48" Flanged (FxF), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	37,210.85	2,619.68
<i>For Class 52 Rating, Deduct</i>	-3,656.58	
<i>For Class 54 Rating, Add</i>	2,493.12	
<i>For Class 55 Rating, Add</i>	5,541.38	
40 05 19 00-0550 EA 48" Flanged (FxF), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	37,963.25	2,622.72
<i>For Class 52 Rating, Deduct</i>	-3,738.84	
<i>For Class 54 Rating, Add</i>	2,549.21	
<i>For Class 55 Rating, Add</i>	5,666.04	
40 05 19 00-0551 EA 48" Flanged (FxF), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	38,708.56	2,625.77
<i>For Class 52 Rating, Deduct</i>	-3,820.31	
<i>For Class 54 Rating, Add</i>	2,604.76	
<i>For Class 55 Rating, Add</i>	5,789.51	
40 05 19 00-0552 EA 48" Flanged (FxF), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	39,454.87	2,628.82
<i>For Class 52 Rating, Deduct</i>	-3,901.90	
<i>For Class 54 Rating, Add</i>	2,660.39	
<i>For Class 55 Rating, Add</i>	5,913.15	
40 05 19 00-0553 EA 48" Flanged (FxF), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	40,206.26	2,631.86
<i>For Class 52 Rating, Deduct</i>	-3,984.04	
<i>For Class 54 Rating, Add</i>	2,716.39	
<i>For Class 55 Rating, Add</i>	6,037.64	
40 05 19 00-0554 Flanged End x Grooved End (FxF), Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0001)</small>		
40 05 19 00-0555 4" Flanged End x Grooved End (FxF), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0554)</small>		
40 05 19 00-0556 EA 4" Flanged x Grooved (FxF), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	383.69	139.39
<i>For Class 52 Rating, Deduct</i>	-18.97	
<i>For Class 54 Rating, Add</i>	12.94	
<i>For Class 55 Rating, Add</i>	28.75	
40 05 19 00-0557 EA 4" Flanged x Grooved (FxF), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	413.76	141.83
<i>For Class 52 Rating, Deduct</i>	-21.88	
<i>For Class 54 Rating, Add</i>	14.92	
<i>For Class 55 Rating, Add</i>	33.15	
40 05 19 00-0558 EA 4" Flanged x Grooved (FxF), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	443.84	144.26
<i>For Class 52 Rating, Deduct</i>	-24.78	
<i>For Class 54 Rating, Add</i>	16.89	
<i>For Class 55 Rating, Add</i>	37.55	
40 05 19 00-0559 EA 4" Flanged x Grooved (FxF), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	473.90	146.70
<i>For Class 52 Rating, Deduct</i>	-27.68	
<i>For Class 54 Rating, Add</i>	18.87	
<i>For Class 55 Rating, Add</i>	41.95	
40 05 19 00-0560 EA 4" Flanged x Grooved (FxF), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	503.98	149.14
<i>For Class 52 Rating, Deduct</i>	-30.58	
<i>For Class 54 Rating, Add</i>	20.85	
<i>For Class 55 Rating, Add</i>	46.34	
40 05 19 00-0561 EA 4" Flanged x Grooved (FxF), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	534.05	151.58
<i>For Class 52 Rating, Deduct</i>	-33.48	
<i>For Class 54 Rating, Add</i>	22.83	
<i>For Class 55 Rating, Add</i>	50.74	
40 05 19 00-0562 EA 4" Flanged x Grooved (FxF), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	564.13	154.01
<i>For Class 52 Rating, Deduct</i>	-36.38	
<i>For Class 54 Rating, Add</i>	24.81	
<i>For Class 55 Rating, Add</i>	55.14	
40 05 19 00-0563 EA 4" Flanged x Grooved (FxF), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	594.20	156.45
<i>For Class 52 Rating, Deduct</i>	-39.29	
<i>For Class 54 Rating, Add</i>	26.79	
<i>For Class 55 Rating, Add</i>	59.54	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0564	EA		4" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	624.26	158.89
			<i>For Class 52 Rating, Deduct</i>	-42.19	
			<i>For Class 54 Rating, Add</i>	28.76	
			<i>For Class 55 Rating, Add</i>	63.93	
40 05 19 00-0565	EA		4" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	654.34	161.33
			<i>For Class 52 Rating, Deduct</i>	-45.09	
			<i>For Class 54 Rating, Add</i>	30.74	
			<i>For Class 55 Rating, Add</i>	68.33	
40 05 19 00-0566	EA		4" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	684.42	163.76
			<i>For Class 52 Rating, Deduct</i>	-47.99	
			<i>For Class 54 Rating, Add</i>	32.72	
			<i>For Class 55 Rating, Add</i>	72.73	
40 05 19 00-0567	EA		4" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	714.50	166.20
			<i>For Class 52 Rating, Deduct</i>	-50.89	
			<i>For Class 54 Rating, Add</i>	34.70	
			<i>For Class 55 Rating, Add</i>	77.13	
40 05 19 00-0568	EA		4" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	744.57	168.64
			<i>For Class 52 Rating, Deduct</i>	-53.80	
			<i>For Class 54 Rating, Add</i>	36.68	
			<i>For Class 55 Rating, Add</i>	81.53	
40 05 19 00-0569	EA		4" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	774.64	171.08
			<i>For Class 52 Rating, Deduct</i>	-56.70	
			<i>For Class 54 Rating, Add</i>	38.66	
			<i>For Class 55 Rating, Add</i>	85.92	
40 05 19 00-0570	EA		4" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	804.71	173.51
			<i>For Class 52 Rating, Deduct</i>	-59.60	
			<i>For Class 54 Rating, Add</i>	40.64	
			<i>For Class 55 Rating, Add</i>	90.32	
40 05 19 00-0571	EA		4" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	834.78	175.95
			<i>For Class 52 Rating, Deduct</i>	-62.50	
			<i>For Class 54 Rating, Add</i>	42.62	
			<i>For Class 55 Rating, Add</i>	94.72	
40 05 19 00-0572	EA		4" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	864.86	178.39
			<i>For Class 52 Rating, Deduct</i>	-65.40	
			<i>For Class 54 Rating, Add</i>	44.59	
			<i>For Class 55 Rating, Add</i>	99.12	
40 05 19 00-0573	EA		4" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	894.92	180.83
			<i>For Class 52 Rating, Deduct</i>	-68.31	
			<i>For Class 54 Rating, Add</i>	46.57	
			<i>For Class 55 Rating, Add</i>	103.51	
40 05 19 00-0574	EA		4" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	925.00	183.25
			<i>For Class 52 Rating, Deduct</i>	-71.21	
			<i>For Class 54 Rating, Add</i>	48.55	
			<i>For Class 55 Rating, Add</i>	107.91	
40 05 19 00-0575	EA		4" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	955.07	185.69
			<i>For Class 52 Rating, Deduct</i>	-74.11	
			<i>For Class 54 Rating, Add</i>	50.53	
			<i>For Class 55 Rating, Add</i>	112.31	
40 05 19 00-0576	EA		4" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	985.15	188.13
			<i>For Class 52 Rating, Deduct</i>	-77.01	
			<i>For Class 54 Rating, Add</i>	52.51	
			<i>For Class 55 Rating, Add</i>	116.71	
40 05 19 00-0577	EA		4" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,015.22	190.57
			<i>For Class 52 Rating, Deduct</i>	-79.91	
			<i>For Class 54 Rating, Add</i>	54.49	
			<i>For Class 55 Rating, Add</i>	121.10	
40 05 19 00-0578	EA		4" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,045.28	193.00
			<i>For Class 52 Rating, Deduct</i>	-82.81	
			<i>For Class 54 Rating, Add</i>	56.46	
			<i>For Class 55 Rating, Add</i>	125.50	
40 05 19 00-0579	EA		4" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,075.36	195.44
			<i>For Class 52 Rating, Deduct</i>	-85.72	
			<i>For Class 54 Rating, Add</i>	58.44	
			<i>For Class 55 Rating, Add</i>	129.90	
40 05 19 00-0580	EA		4" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,105.43	197.88
			<i>For Class 52 Rating, Deduct</i>	-88.62	
			<i>For Class 54 Rating, Add</i>	60.42	
			<i>For Class 55 Rating, Add</i>	134.30	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0581 EA 4" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,135.51	200.32
For Class 52 Rating, Deduct	-91.52	
For Class 54 Rating, Add	62.40	
For Class 55 Rating, Add	138.69	
40 05 19 00-0582 EA 4" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,165.59	202.75
For Class 52 Rating, Deduct	-94.42	
For Class 54 Rating, Add	64.38	
For Class 55 Rating, Add	143.09	
40 05 19 00-0583 EA 4" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,195.66	205.19
For Class 52 Rating, Deduct	-97.32	
For Class 54 Rating, Add	66.36	
For Class 55 Rating, Add	147.49	
40 05 19 00-0584 EA 4" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,225.73	207.63
For Class 52 Rating, Deduct	-100.23	
For Class 54 Rating, Add	68.34	
For Class 55 Rating, Add	151.89	
40 05 19 00-0585 EA 4" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,255.80	210.06
For Class 52 Rating, Deduct	-103.13	
For Class 54 Rating, Add	70.31	
For Class 55 Rating, Add	156.29	
40 05 19 00-0586 EA 4" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,285.88	212.50
For Class 52 Rating, Deduct	-106.03	
For Class 54 Rating, Add	72.29	
For Class 55 Rating, Add	160.68	
40 05 19 00-0587 EA 4" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,315.95	214.94
For Class 52 Rating, Deduct	-108.93	
For Class 54 Rating, Add	74.27	
For Class 55 Rating, Add	165.08	
40 05 19 00-0588 EA 4" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,346.02	217.38
For Class 52 Rating, Deduct	-111.83	
For Class 54 Rating, Add	76.25	
For Class 55 Rating, Add	169.48	
40 05 19 00-0589 EA 4" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,376.09	219.81
For Class 52 Rating, Deduct	-114.74	
For Class 54 Rating, Add	78.23	
For Class 55 Rating, Add	173.88	
40 05 19 00-0590 EA 4" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,406.17	222.25
For Class 52 Rating, Deduct	-117.64	
For Class 54 Rating, Add	80.21	
For Class 55 Rating, Add	178.27	
40 05 19 00-0591 EA 4" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,436.24	224.69
For Class 52 Rating, Deduct	-120.54	
For Class 54 Rating, Add	82.19	
For Class 55 Rating, Add	182.67	
40 05 19 00-0592 EA 4" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,466.32	227.12
For Class 52 Rating, Deduct	-123.44	
For Class 54 Rating, Add	84.16	
For Class 55 Rating, Add	187.07	
40 05 19 00-0593 EA 4" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,496.38	229.55
For Class 52 Rating, Deduct	-126.34	
For Class 54 Rating, Add	86.14	
For Class 55 Rating, Add	191.47	
40 05 19 00-0594 EA 4" Flanged x Grooved (FxG), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,526.45	231.99
For Class 52 Rating, Deduct	-129.24	
For Class 54 Rating, Add	88.12	
For Class 55 Rating, Add	195.86	
40 05 19 00-0595 6" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0554)</small>		
40 05 19 00-0596 EA 6" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	479.93	175.46
For Class 52 Rating, Deduct	-23.55	
For Class 54 Rating, Add	16.06	
For Class 55 Rating, Add	35.69	
40 05 19 00-0597 EA 6" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	516.10	177.89
For Class 52 Rating, Deduct	-27.12	
For Class 54 Rating, Add	18.49	
For Class 55 Rating, Add	41.10	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0598	EA		6" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	552.26	180.33
			<i>For Class 52 Rating, Deduct</i>	-30.69	
			<i>For Class 54 Rating, Add</i>	20.93	
			<i>For Class 55 Rating, Add</i>	46.51	
40 05 19 00-0599	EA		6" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	588.41	182.77
			<i>For Class 52 Rating, Deduct</i>	-34.26	
			<i>For Class 54 Rating, Add</i>	23.36	
			<i>For Class 55 Rating, Add</i>	51.93	
40 05 19 00-0600	EA		6" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	624.58	185.21
			<i>For Class 52 Rating, Deduct</i>	-37.84	
			<i>For Class 54 Rating, Add</i>	25.80	
			<i>For Class 55 Rating, Add</i>	57.34	
40 05 19 00-0601	EA		6" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	660.73	187.64
			<i>For Class 52 Rating, Deduct</i>	-41.41	
			<i>For Class 54 Rating, Add</i>	28.23	
			<i>For Class 55 Rating, Add</i>	62.75	
40 05 19 00-0602	EA		6" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	696.90	190.08
			<i>For Class 52 Rating, Deduct</i>	-44.98	
			<i>For Class 54 Rating, Add</i>	30.67	
			<i>For Class 55 Rating, Add</i>	68.16	
40 05 19 00-0603	EA		6" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	733.06	192.52
			<i>For Class 52 Rating, Deduct</i>	-48.55	
			<i>For Class 54 Rating, Add</i>	33.10	
			<i>For Class 55 Rating, Add</i>	73.58	
40 05 19 00-0604	EA		6" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	769.23	194.96
			<i>For Class 52 Rating, Deduct</i>	-52.12	
			<i>For Class 54 Rating, Add</i>	35.54	
			<i>For Class 55 Rating, Add</i>	78.99	
40 05 19 00-0605	EA		6" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	805.39	197.39
			<i>For Class 52 Rating, Deduct</i>	-55.69	
			<i>For Class 54 Rating, Add</i>	37.97	
			<i>For Class 55 Rating, Add</i>	84.40	
40 05 19 00-0606	EA		6" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	841.53	199.83
			<i>For Class 52 Rating, Deduct</i>	-59.26	
			<i>For Class 54 Rating, Add</i>	40.41	
			<i>For Class 55 Rating, Add</i>	89.81	
40 05 19 00-0607	EA		6" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	877.70	202.26
			<i>For Class 52 Rating, Deduct</i>	-62.84	
			<i>For Class 54 Rating, Add</i>	42.84	
			<i>For Class 55 Rating, Add</i>	95.23	
40 05 19 00-0608	EA		6" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	913.86	204.70
			<i>For Class 52 Rating, Deduct</i>	-66.41	
			<i>For Class 54 Rating, Add</i>	45.28	
			<i>For Class 55 Rating, Add</i>	100.64	
40 05 19 00-0609	EA		6" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	950.03	207.13
			<i>For Class 52 Rating, Deduct</i>	-69.98	
			<i>For Class 54 Rating, Add</i>	47.71	
			<i>For Class 55 Rating, Add</i>	106.05	
40 05 19 00-0610	EA		6" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	986.18	209.57
			<i>For Class 52 Rating, Deduct</i>	-73.55	
			<i>For Class 54 Rating, Add</i>	50.15	
			<i>For Class 55 Rating, Add</i>	111.46	
40 05 19 00-0611	EA		6" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,022.35	212.01
			<i>For Class 52 Rating, Deduct</i>	-77.12	
			<i>For Class 54 Rating, Add</i>	52.58	
			<i>For Class 55 Rating, Add</i>	116.88	
40 05 19 00-0612	EA		6" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,058.50	214.45
			<i>For Class 52 Rating, Deduct</i>	-80.69	
			<i>For Class 54 Rating, Add</i>	55.02	
			<i>For Class 55 Rating, Add</i>	122.29	
40 05 19 00-0613	EA		6" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,094.66	216.88
			<i>For Class 52 Rating, Deduct</i>	-84.27	
			<i>For Class 54 Rating, Add</i>	57.45	
			<i>For Class 55 Rating, Add</i>	127.70	
40 05 19 00-0614	EA		6" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,130.83	219.32
			<i>For Class 52 Rating, Deduct</i>	-87.84	
			<i>For Class 54 Rating, Add</i>	59.89	
			<i>For Class 55 Rating, Add</i>	133.11	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0615 EA 6" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,166.98	221.76
<i>For Class 52 Rating, Deduct</i>	-91.41	
<i>For Class 54 Rating, Add</i>	62.32	
<i>For Class 55 Rating, Add</i>	138.53	
40 05 19 00-0616 EA 6" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,203.15	224.20
<i>For Class 52 Rating, Deduct</i>	-94.98	
<i>For Class 54 Rating, Add</i>	64.76	
<i>For Class 55 Rating, Add</i>	143.94	
40 05 19 00-0617 EA 6" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,239.31	226.63
<i>For Class 52 Rating, Deduct</i>	-98.55	
<i>For Class 54 Rating, Add</i>	67.19	
<i>For Class 55 Rating, Add</i>	149.35	
40 05 19 00-0618 EA 6" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,275.48	229.07
<i>For Class 52 Rating, Deduct</i>	-102.12	
<i>For Class 54 Rating, Add</i>	69.63	
<i>For Class 55 Rating, Add</i>	154.76	
40 05 19 00-0619 EA 6" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,311.63	231.51
<i>For Class 52 Rating, Deduct</i>	-105.69	
<i>For Class 54 Rating, Add</i>	72.06	
<i>For Class 55 Rating, Add</i>	160.18	
40 05 19 00-0620 EA 6" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,347.79	233.95
<i>For Class 52 Rating, Deduct</i>	-109.27	
<i>For Class 54 Rating, Add</i>	74.50	
<i>For Class 55 Rating, Add</i>	165.59	
40 05 19 00-0621 EA 6" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,383.95	236.38
<i>For Class 52 Rating, Deduct</i>	-112.84	
<i>For Class 54 Rating, Add</i>	76.94	
<i>For Class 55 Rating, Add</i>	171.00	
40 05 19 00-0622 EA 6" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,420.11	238.82
<i>For Class 52 Rating, Deduct</i>	-116.41	
<i>For Class 54 Rating, Add</i>	79.37	
<i>For Class 55 Rating, Add</i>	176.41	
40 05 19 00-0623 EA 6" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,456.28	241.26
<i>For Class 52 Rating, Deduct</i>	-119.98	
<i>For Class 54 Rating, Add</i>	81.81	
<i>For Class 55 Rating, Add</i>	181.83	
40 05 19 00-0624 EA 6" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,492.44	243.70
<i>For Class 52 Rating, Deduct</i>	-123.55	
<i>For Class 54 Rating, Add</i>	84.24	
<i>For Class 55 Rating, Add</i>	187.24	
40 05 19 00-0625 EA 6" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,528.60	246.12
<i>For Class 52 Rating, Deduct</i>	-127.12	
<i>For Class 54 Rating, Add</i>	86.68	
<i>For Class 55 Rating, Add</i>	192.65	
40 05 19 00-0626 EA 6" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,564.75	248.56
<i>For Class 52 Rating, Deduct</i>	-130.70	
<i>For Class 54 Rating, Add</i>	89.11	
<i>For Class 55 Rating, Add</i>	198.06	
40 05 19 00-0627 EA 6" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,600.92	251.00
<i>For Class 52 Rating, Deduct</i>	-134.27	
<i>For Class 54 Rating, Add</i>	91.55	
<i>For Class 55 Rating, Add</i>	203.48	
40 05 19 00-0628 EA 6" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,637.08	253.44
<i>For Class 52 Rating, Deduct</i>	-137.84	
<i>For Class 54 Rating, Add</i>	93.98	
<i>For Class 55 Rating, Add</i>	208.89	
40 05 19 00-0629 EA 6" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,673.24	255.87
<i>For Class 52 Rating, Deduct</i>	-141.41	
<i>For Class 54 Rating, Add</i>	96.42	
<i>For Class 55 Rating, Add</i>	214.30	
40 05 19 00-0630 EA 6" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,709.40	258.31
<i>For Class 52 Rating, Deduct</i>	-144.98	
<i>For Class 54 Rating, Add</i>	98.85	
<i>For Class 55 Rating, Add</i>	219.71	
40 05 19 00-0631 EA 6" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,745.56	260.75
<i>For Class 52 Rating, Deduct</i>	-148.55	
<i>For Class 54 Rating, Add</i>	101.29	
<i>For Class 55 Rating, Add</i>	225.13	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0632	EA		6" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,781.72	263.19
			<i>For Class 52 Rating, Deduct</i>	-152.12	
			<i>For Class 54 Rating, Add</i>	103.72	
			<i>For Class 55 Rating, Add</i>	230.54	
40 05 19 00-0633	EA		6" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,817.88	265.62
			<i>For Class 52 Rating, Deduct</i>	-155.70	
			<i>For Class 54 Rating, Add</i>	106.16	
			<i>For Class 55 Rating, Add</i>	235.95	
40 05 19 00-0634	EA		6" Flanged x Grooved (FxG), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,854.05	268.06
			<i>For Class 52 Rating, Deduct</i>	-159.27	
			<i>For Class 54 Rating, Add</i>	108.59	
			<i>For Class 55 Rating, Add</i>	241.36	
40 05 19 00-0635			8" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0554)</small>		
40 05 19 00-0636	EA		8" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	652.20	224.20
			<i>For Class 52 Rating, Deduct</i>	-34.38	
			<i>For Class 54 Rating, Add</i>	23.44	
			<i>For Class 55 Rating, Add</i>	52.10	
40 05 19 00-0637	EA		8" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	700.53	226.63
			<i>For Class 52 Rating, Deduct</i>	-39.29	
			<i>For Class 54 Rating, Add</i>	26.79	
			<i>For Class 55 Rating, Add</i>	59.54	
40 05 19 00-0638	EA		8" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	748.88	229.07
			<i>For Class 52 Rating, Deduct</i>	-44.20	
			<i>For Class 54 Rating, Add</i>	30.14	
			<i>For Class 55 Rating, Add</i>	66.98	
40 05 19 00-0639	EA		8" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	797.21	231.51
			<i>For Class 52 Rating, Deduct</i>	-49.11	
			<i>For Class 54 Rating, Add</i>	33.48	
			<i>For Class 55 Rating, Add</i>	74.42	
40 05 19 00-0640	EA		8" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	845.55	233.95
			<i>For Class 52 Rating, Deduct</i>	-54.02	
			<i>For Class 54 Rating, Add</i>	36.83	
			<i>For Class 55 Rating, Add</i>	81.86	
40 05 19 00-0641	EA		8" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	893.88	236.38
			<i>For Class 52 Rating, Deduct</i>	-58.93	
			<i>For Class 54 Rating, Add</i>	40.18	
			<i>For Class 55 Rating, Add</i>	89.31	
40 05 19 00-0642	EA		8" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	942.21	238.82
			<i>For Class 52 Rating, Deduct</i>	-63.84	
			<i>For Class 54 Rating, Add</i>	43.53	
			<i>For Class 55 Rating, Add</i>	96.75	
40 05 19 00-0643	EA		8" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	990.56	241.26
			<i>For Class 52 Rating, Deduct</i>	-68.75	
			<i>For Class 54 Rating, Add</i>	46.88	
			<i>For Class 55 Rating, Add</i>	104.19	
40 05 19 00-0644	EA		8" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,038.89	243.70
			<i>For Class 52 Rating, Deduct</i>	-73.66	
			<i>For Class 54 Rating, Add</i>	50.22	
			<i>For Class 55 Rating, Add</i>	111.63	
40 05 19 00-0645	EA		8" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,087.23	246.12
			<i>For Class 52 Rating, Deduct</i>	-78.57	
			<i>For Class 54 Rating, Add</i>	53.57	
			<i>For Class 55 Rating, Add</i>	119.08	
40 05 19 00-0646	EA		8" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,135.56	248.56
			<i>For Class 52 Rating, Deduct</i>	-83.48	
			<i>For Class 54 Rating, Add</i>	56.92	
			<i>For Class 55 Rating, Add</i>	126.52	
40 05 19 00-0647	EA		8" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,183.90	251.00
			<i>For Class 52 Rating, Deduct</i>	-88.39	
			<i>For Class 54 Rating, Add</i>	60.27	
			<i>For Class 55 Rating, Add</i>	133.96	
40 05 19 00-0648	EA		8" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,232.24	253.44
			<i>For Class 52 Rating, Deduct</i>	-93.31	
			<i>For Class 54 Rating, Add</i>	63.62	
			<i>For Class 55 Rating, Add</i>	141.40	



MINOR	TOTAL DIRECT	DEMOLITION
CSI UOM DESCRIPTION	UNIT COST	UNIT COST
40 05 19 00-0649 EA 8" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,280.57	255.87
<i>For Class 52 Rating, Deduct</i>	-98.22	
<i>For Class 54 Rating, Add</i>	66.97	
<i>For Class 55 Rating, Add</i>	148.84	
40 05 19 00-0650 EA 8" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,328.91	258.31
<i>For Class 52 Rating, Deduct</i>	-103.13	
<i>For Class 54 Rating, Add</i>	70.31	
<i>For Class 55 Rating, Add</i>	156.29	
40 05 19 00-0651 EA 8" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,377.24	260.75
<i>For Class 52 Rating, Deduct</i>	-108.04	
<i>For Class 54 Rating, Add</i>	73.66	
<i>For Class 55 Rating, Add</i>	163.73	
40 05 19 00-0652 EA 8" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,425.59	263.19
<i>For Class 52 Rating, Deduct</i>	-112.95	
<i>For Class 54 Rating, Add</i>	77.01	
<i>For Class 55 Rating, Add</i>	171.17	
40 05 19 00-0653 EA 8" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,473.92	265.62
<i>For Class 52 Rating, Deduct</i>	-117.86	
<i>For Class 54 Rating, Add</i>	80.36	
<i>For Class 55 Rating, Add</i>	178.61	
40 05 19 00-0654 EA 8" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,522.26	268.06
<i>For Class 52 Rating, Deduct</i>	-122.77	
<i>For Class 54 Rating, Add</i>	83.71	
<i>For Class 55 Rating, Add</i>	186.05	
40 05 19 00-0655 EA 8" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,570.59	270.50
<i>For Class 52 Rating, Deduct</i>	-127.68	
<i>For Class 54 Rating, Add</i>	87.06	
<i>For Class 55 Rating, Add</i>	193.50	
40 05 19 00-0656 EA 8" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,618.92	272.94
<i>For Class 52 Rating, Deduct</i>	-132.59	
<i>For Class 54 Rating, Add</i>	90.40	
<i>For Class 55 Rating, Add</i>	200.94	
40 05 19 00-0657 EA 8" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,667.27	275.37
<i>For Class 52 Rating, Deduct</i>	-137.50	
<i>For Class 54 Rating, Add</i>	93.75	
<i>For Class 55 Rating, Add</i>	208.38	
40 05 19 00-0658 EA 8" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,715.60	277.81
<i>For Class 52 Rating, Deduct</i>	-142.41	
<i>For Class 54 Rating, Add</i>	97.10	
<i>For Class 55 Rating, Add</i>	215.82	
40 05 19 00-0659 EA 8" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,763.94	280.25
<i>For Class 52 Rating, Deduct</i>	-147.33	
<i>For Class 54 Rating, Add</i>	100.45	
<i>For Class 55 Rating, Add</i>	223.26	
40 05 19 00-0660 EA 8" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,812.27	282.68
<i>For Class 52 Rating, Deduct</i>	-152.24	
<i>For Class 54 Rating, Add</i>	103.80	
<i>For Class 55 Rating, Add</i>	230.71	
40 05 19 00-0661 EA 8" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,860.61	285.12
<i>For Class 52 Rating, Deduct</i>	-157.15	
<i>For Class 54 Rating, Add</i>	107.15	
<i>For Class 55 Rating, Add</i>	238.15	
40 05 19 00-0662 EA 8" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,908.95	287.56
<i>For Class 52 Rating, Deduct</i>	-162.06	
<i>For Class 54 Rating, Add</i>	110.49	
<i>For Class 55 Rating, Add</i>	245.59	
40 05 19 00-0663 EA 8" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,957.28	290.00
<i>For Class 52 Rating, Deduct</i>	-166.97	
<i>For Class 54 Rating, Add</i>	113.84	
<i>For Class 55 Rating, Add</i>	253.03	
40 05 19 00-0664 EA 8" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,005.63	292.42
<i>For Class 52 Rating, Deduct</i>	-171.88	
<i>For Class 54 Rating, Add</i>	117.19	
<i>For Class 55 Rating, Add</i>	260.48	
40 05 19 00-0665 EA 8" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,053.95	294.86
<i>For Class 52 Rating, Deduct</i>	-176.79	
<i>For Class 54 Rating, Add</i>	120.54	
<i>For Class 55 Rating, Add</i>	267.92	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0666	EA		8" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,102.29	297.30
			<i>For Class 52 Rating, Deduct</i>	-181.70	
			<i>For Class 54 Rating, Add</i>	123.89	
			<i>For Class 55 Rating, Add</i>	275.36	
40 05 19 00-0667	EA		8" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,150.63	299.74
			<i>For Class 52 Rating, Deduct</i>	-186.61	
			<i>For Class 54 Rating, Add</i>	127.24	
			<i>For Class 55 Rating, Add</i>	282.80	
40 05 19 00-0668	EA		8" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,198.97	302.17
			<i>For Class 52 Rating, Deduct</i>	-191.52	
			<i>For Class 54 Rating, Add</i>	130.58	
			<i>For Class 55 Rating, Add</i>	290.24	
40 05 19 00-0669	EA		8" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,247.31	304.61
			<i>For Class 52 Rating, Deduct</i>	-196.43	
			<i>For Class 54 Rating, Add</i>	133.93	
			<i>For Class 55 Rating, Add</i>	297.69	
40 05 19 00-0670	EA		8" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,295.63	307.05
			<i>For Class 52 Rating, Deduct</i>	-201.35	
			<i>For Class 54 Rating, Add</i>	137.28	
			<i>For Class 55 Rating, Add</i>	305.13	
40 05 19 00-0671	EA		8" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,343.97	309.49
			<i>For Class 52 Rating, Deduct</i>	-206.26	
			<i>For Class 54 Rating, Add</i>	140.63	
			<i>For Class 55 Rating, Add</i>	312.57	
40 05 19 00-0672	EA		8" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,392.31	311.92
			<i>For Class 52 Rating, Deduct</i>	-211.17	
			<i>For Class 54 Rating, Add</i>	143.98	
			<i>For Class 55 Rating, Add</i>	320.01	
40 05 19 00-0673	EA		8" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,440.65	314.36
			<i>For Class 52 Rating, Deduct</i>	-216.08	
			<i>For Class 54 Rating, Add</i>	147.33	
			<i>For Class 55 Rating, Add</i>	327.46	
40 05 19 00-0674	EA		8" Flanged x Grooved (FxG), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,488.99	316.80
			<i>For Class 52 Rating, Deduct</i>	-220.99	
			<i>For Class 54 Rating, Add</i>	150.67	
			<i>For Class 55 Rating, Add</i>	334.90	
40 05 19 00-0675			10" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0554)</small>		
40 05 19 00-0676	EA		10" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	813.30	272.94
			<i>For Class 52 Rating, Deduct</i>	-43.97	
			<i>For Class 54 Rating, Add</i>	29.98	
			<i>For Class 55 Rating, Add</i>	66.64	
40 05 19 00-0677	EA		10" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	875.85	275.37
			<i>For Class 52 Rating, Deduct</i>	-50.45	
			<i>For Class 54 Rating, Add</i>	34.40	
			<i>For Class 55 Rating, Add</i>	76.45	
40 05 19 00-0678	EA		10" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	938.39	277.81
			<i>For Class 52 Rating, Deduct</i>	-56.92	
			<i>For Class 54 Rating, Add</i>	38.81	
			<i>For Class 55 Rating, Add</i>	86.26	
40 05 19 00-0679	EA		10" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,000.94	280.25
			<i>For Class 52 Rating, Deduct</i>	-63.40	
			<i>For Class 54 Rating, Add</i>	43.22	
			<i>For Class 55 Rating, Add</i>	96.07	
40 05 19 00-0680	EA		10" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,063.46	282.68
			<i>For Class 52 Rating, Deduct</i>	-69.87	
			<i>For Class 54 Rating, Add</i>	47.64	
			<i>For Class 55 Rating, Add</i>	105.88	
40 05 19 00-0681	EA		10" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,126.01	285.12
			<i>For Class 52 Rating, Deduct</i>	-76.34	
			<i>For Class 54 Rating, Add</i>	52.05	
			<i>For Class 55 Rating, Add</i>	115.69	
40 05 19 00-0682	EA		10" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,188.55	287.56
			<i>For Class 52 Rating, Deduct</i>	-82.81	
			<i>For Class 54 Rating, Add</i>	56.46	
			<i>For Class 55 Rating, Add</i>	125.50	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0683 EA 10" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,251.09	290.00
<i>For Class 52 Rating, Deduct</i>	-89.29	
<i>For Class 54 Rating, Add</i>	60.88	
<i>For Class 55 Rating, Add</i>	135.31	
40 05 19 00-0684 EA 10" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,313.64	292.42
<i>For Class 52 Rating, Deduct</i>	-95.76	
<i>For Class 54 Rating, Add</i>	65.29	
<i>For Class 55 Rating, Add</i>	145.12	
40 05 19 00-0685 EA 10" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,376.17	294.86
<i>For Class 52 Rating, Deduct</i>	-102.24	
<i>For Class 54 Rating, Add</i>	69.71	
<i>For Class 55 Rating, Add</i>	154.93	
40 05 19 00-0686 EA 10" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,438.72	297.30
<i>For Class 52 Rating, Deduct</i>	-108.71	
<i>For Class 54 Rating, Add</i>	74.12	
<i>For Class 55 Rating, Add</i>	164.74	
40 05 19 00-0687 EA 10" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,501.26	299.74
<i>For Class 52 Rating, Deduct</i>	-115.18	
<i>For Class 54 Rating, Add</i>	78.53	
<i>For Class 55 Rating, Add</i>	174.55	
40 05 19 00-0688 EA 10" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,563.81	302.17
<i>For Class 52 Rating, Deduct</i>	-121.66	
<i>For Class 54 Rating, Add</i>	82.95	
<i>For Class 55 Rating, Add</i>	184.36	
40 05 19 00-0689 EA 10" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,626.35	304.61
<i>For Class 52 Rating, Deduct</i>	-128.13	
<i>For Class 54 Rating, Add</i>	87.36	
<i>For Class 55 Rating, Add</i>	194.17	
40 05 19 00-0690 EA 10" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,688.88	307.05
<i>For Class 52 Rating, Deduct</i>	-134.60	
<i>For Class 54 Rating, Add</i>	91.77	
<i>For Class 55 Rating, Add</i>	203.98	
40 05 19 00-0691 EA 10" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,751.42	309.49
<i>For Class 52 Rating, Deduct</i>	-141.08	
<i>For Class 54 Rating, Add</i>	96.19	
<i>For Class 55 Rating, Add</i>	213.79	
40 05 19 00-0692 EA 10" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,813.96	311.92
<i>For Class 52 Rating, Deduct</i>	-147.55	
<i>For Class 54 Rating, Add</i>	100.60	
<i>For Class 55 Rating, Add</i>	223.60	
40 05 19 00-0693 EA 10" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,876.51	314.36
<i>For Class 52 Rating, Deduct</i>	-154.02	
<i>For Class 54 Rating, Add</i>	105.02	
<i>For Class 55 Rating, Add</i>	233.41	
40 05 19 00-0694 EA 10" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,939.05	316.80
<i>For Class 52 Rating, Deduct</i>	-160.50	
<i>For Class 54 Rating, Add</i>	109.43	
<i>For Class 55 Rating, Add</i>	243.22	
40 05 19 00-0695 EA 10" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,001.59	319.24
<i>For Class 52 Rating, Deduct</i>	-166.97	
<i>For Class 54 Rating, Add</i>	113.84	
<i>For Class 55 Rating, Add</i>	253.03	
40 05 19 00-0696 EA 10" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,064.13	321.67
<i>For Class 52 Rating, Deduct</i>	-173.44	
<i>For Class 54 Rating, Add</i>	118.26	
<i>For Class 55 Rating, Add</i>	262.84	
40 05 19 00-0697 EA 10" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,126.68	324.11
<i>For Class 52 Rating, Deduct</i>	-179.92	
<i>For Class 54 Rating, Add</i>	122.67	
<i>For Class 55 Rating, Add</i>	272.65	
40 05 19 00-0698 EA 10" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,189.22	326.55
<i>For Class 52 Rating, Deduct</i>	-186.39	
<i>For Class 54 Rating, Add</i>	127.08	
<i>For Class 55 Rating, Add</i>	282.46	
40 05 19 00-0699 EA 10" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,251.76	328.99
<i>For Class 52 Rating, Deduct</i>	-192.86	
<i>For Class 54 Rating, Add</i>	131.50	
<i>For Class 55 Rating, Add</i>	292.28	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0700	EA		10" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,314.30	331.42
			<i>For Class 52 Rating, Deduct</i>	-199.34	
			<i>For Class 54 Rating, Add</i>	135.91	
			<i>For Class 55 Rating, Add</i>	302.09	
40 05 19 00-0701	EA		10" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,376.84	333.86
			<i>For Class 52 Rating, Deduct</i>	-205.81	
			<i>For Class 54 Rating, Add</i>	140.33	
			<i>For Class 55 Rating, Add</i>	311.90	
40 05 19 00-0702	EA		10" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,439.39	336.29
			<i>For Class 52 Rating, Deduct</i>	-212.28	
			<i>For Class 54 Rating, Add</i>	144.74	
			<i>For Class 55 Rating, Add</i>	321.71	
40 05 19 00-0703	EA		10" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,501.92	338.73
			<i>For Class 52 Rating, Deduct</i>	-218.76	
			<i>For Class 54 Rating, Add</i>	149.15	
			<i>For Class 55 Rating, Add</i>	331.51	
40 05 19 00-0704	EA		10" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,564.47	341.16
			<i>For Class 52 Rating, Deduct</i>	-225.23	
			<i>For Class 54 Rating, Add</i>	153.57	
			<i>For Class 55 Rating, Add</i>	341.32	
40 05 19 00-0705	EA		10" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,627.00	343.60
			<i>For Class 52 Rating, Deduct</i>	-231.70	
			<i>For Class 54 Rating, Add</i>	157.98	
			<i>For Class 55 Rating, Add</i>	351.14	
40 05 19 00-0706	EA		10" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,689.54	346.04
			<i>For Class 52 Rating, Deduct</i>	-238.18	
			<i>For Class 54 Rating, Add</i>	162.39	
			<i>For Class 55 Rating, Add</i>	360.95	
40 05 19 00-0707	EA		10" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,752.09	348.48
			<i>For Class 52 Rating, Deduct</i>	-244.65	
			<i>For Class 54 Rating, Add</i>	166.81	
			<i>For Class 55 Rating, Add</i>	370.76	
40 05 19 00-0708	EA		10" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,814.63	350.91
			<i>For Class 52 Rating, Deduct</i>	-251.12	
			<i>For Class 54 Rating, Add</i>	171.22	
			<i>For Class 55 Rating, Add</i>	380.57	
40 05 19 00-0709	EA		10" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,877.17	353.35
			<i>For Class 52 Rating, Deduct</i>	-257.60	
			<i>For Class 54 Rating, Add</i>	175.63	
			<i>For Class 55 Rating, Add</i>	390.38	
40 05 19 00-0710	EA		10" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,939.71	355.79
			<i>For Class 52 Rating, Deduct</i>	-264.07	
			<i>For Class 54 Rating, Add</i>	180.05	
			<i>For Class 55 Rating, Add</i>	400.19	
40 05 19 00-0711	EA		10" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,002.26	358.23
			<i>For Class 52 Rating, Deduct</i>	-270.54	
			<i>For Class 54 Rating, Add</i>	184.46	
			<i>For Class 55 Rating, Add</i>	410.00	
40 05 19 00-0712	EA		10" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,064.80	360.66
			<i>For Class 52 Rating, Deduct</i>	-277.02	
			<i>For Class 54 Rating, Add</i>	188.88	
			<i>For Class 55 Rating, Add</i>	419.81	
40 05 19 00-0713	EA		10" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,127.34	363.10
			<i>For Class 52 Rating, Deduct</i>	-283.49	
			<i>For Class 54 Rating, Add</i>	193.29	
			<i>For Class 55 Rating, Add</i>	429.62	
40 05 19 00-0714	EA		10" Flanged x Grooved (FxG), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,189.87	365.54
			<i>For Class 52 Rating, Deduct</i>	-289.96	
			<i>For Class 54 Rating, Add</i>	197.70	
			<i>For Class 55 Rating, Add</i>	439.43	
40 05 19 00-0715			12" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		
			<small>(40 05 19 00-0554)</small>		
40 05 19 00-0716	EA		12" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,046.57	341.16
			<i>For Class 52 Rating, Deduct</i>	-58.26	
			<i>For Class 54 Rating, Add</i>	39.72	
			<i>For Class 55 Rating, Add</i>	88.29	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0717 EA 12" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,124.32	343.60
<i>For Class 52 Rating, Deduct</i>	-66.41	
<i>For Class 54 Rating, Add</i>	45.28	
<i>For Class 55 Rating, Add</i>	100.64	
40 05 19 00-0718 EA 12" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,202.08	346.04
<i>For Class 52 Rating, Deduct</i>	-74.56	
<i>For Class 54 Rating, Add</i>	50.83	
<i>For Class 55 Rating, Add</i>	112.99	
40 05 19 00-0719 EA 12" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,279.85	348.48
<i>For Class 52 Rating, Deduct</i>	-82.70	
<i>For Class 54 Rating, Add</i>	56.39	
<i>For Class 55 Rating, Add</i>	125.33	
40 05 19 00-0720 EA 12" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,357.61	350.91
<i>For Class 52 Rating, Deduct</i>	-90.85	
<i>For Class 54 Rating, Add</i>	61.94	
<i>For Class 55 Rating, Add</i>	137.68	
40 05 19 00-0721 EA 12" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,435.37	353.35
<i>For Class 52 Rating, Deduct</i>	-99.00	
<i>For Class 54 Rating, Add</i>	67.50	
<i>For Class 55 Rating, Add</i>	150.03	
40 05 19 00-0722 EA 12" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,513.12	355.79
<i>For Class 52 Rating, Deduct</i>	-107.15	
<i>For Class 54 Rating, Add</i>	73.05	
<i>For Class 55 Rating, Add</i>	162.37	
40 05 19 00-0723 EA 12" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,590.89	358.23
<i>For Class 52 Rating, Deduct</i>	-115.29	
<i>For Class 54 Rating, Add</i>	78.61	
<i>For Class 55 Rating, Add</i>	174.72	
40 05 19 00-0724 EA 12" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,668.65	360.66
<i>For Class 52 Rating, Deduct</i>	-123.44	
<i>For Class 54 Rating, Add</i>	84.16	
<i>For Class 55 Rating, Add</i>	187.07	
40 05 19 00-0725 EA 12" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,746.41	363.10
<i>For Class 52 Rating, Deduct</i>	-131.59	
<i>For Class 54 Rating, Add</i>	89.72	
<i>For Class 55 Rating, Add</i>	199.42	
40 05 19 00-0726 EA 12" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,824.17	365.54
<i>For Class 52 Rating, Deduct</i>	-139.74	
<i>For Class 54 Rating, Add</i>	95.27	
<i>For Class 55 Rating, Add</i>	211.76	
40 05 19 00-0727 EA 12" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,901.93	367.98
<i>For Class 52 Rating, Deduct</i>	-147.88	
<i>For Class 54 Rating, Add</i>	100.83	
<i>For Class 55 Rating, Add</i>	224.11	
40 05 19 00-0728 EA 12" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,979.70	370.41
<i>For Class 52 Rating, Deduct</i>	-156.03	
<i>For Class 54 Rating, Add</i>	106.39	
<i>For Class 55 Rating, Add</i>	236.46	
40 05 19 00-0729 EA 12" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,057.46	372.85
<i>For Class 52 Rating, Deduct</i>	-164.18	
<i>For Class 54 Rating, Add</i>	111.94	
<i>For Class 55 Rating, Add</i>	248.81	
40 05 19 00-0730 EA 12" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,135.22	375.29
<i>For Class 52 Rating, Deduct</i>	-172.33	
<i>For Class 54 Rating, Add</i>	117.50	
<i>For Class 55 Rating, Add</i>	261.15	
40 05 19 00-0731 EA 12" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,212.97	377.73
<i>For Class 52 Rating, Deduct</i>	-180.47	
<i>For Class 54 Rating, Add</i>	123.05	
<i>For Class 55 Rating, Add</i>	273.50	
40 05 19 00-0732 EA 12" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,290.73	380.15
<i>For Class 52 Rating, Deduct</i>	-188.62	
<i>For Class 54 Rating, Add</i>	128.61	
<i>For Class 55 Rating, Add</i>	285.85	
40 05 19 00-0733 EA 12" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,368.50	382.59
<i>For Class 52 Rating, Deduct</i>	-196.77	
<i>For Class 54 Rating, Add</i>	134.16	
<i>For Class 55 Rating, Add</i>	298.19	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0734	EA		12" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,446.26	385.03
			<i>For Class 52 Rating, Deduct</i>	-204.92	
			<i>For Class 54 Rating, Add</i>	139.72	
			<i>For Class 55 Rating, Add</i>	310.54	
40 05 19 00-0735	EA		12" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,524.03	387.47
			<i>For Class 52 Rating, Deduct</i>	-213.06	
			<i>For Class 54 Rating, Add</i>	145.27	
			<i>For Class 55 Rating, Add</i>	322.89	
40 05 19 00-0736	EA		12" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,601.78	389.90
			<i>For Class 52 Rating, Deduct</i>	-221.21	
			<i>For Class 54 Rating, Add</i>	150.83	
			<i>For Class 55 Rating, Add</i>	335.24	
40 05 19 00-0737	EA		12" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,679.55	392.34
			<i>For Class 52 Rating, Deduct</i>	-229.36	
			<i>For Class 54 Rating, Add</i>	156.38	
			<i>For Class 55 Rating, Add</i>	347.58	
40 05 19 00-0738	EA		12" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,757.30	394.78
			<i>For Class 52 Rating, Deduct</i>	-237.51	
			<i>For Class 54 Rating, Add</i>	161.94	
			<i>For Class 55 Rating, Add</i>	359.93	
40 05 19 00-0739	EA		12" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,835.07	397.22
			<i>For Class 52 Rating, Deduct</i>	-245.65	
			<i>For Class 54 Rating, Add</i>	167.49	
			<i>For Class 55 Rating, Add</i>	372.28	
40 05 19 00-0740	EA		12" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,912.83	399.65
			<i>For Class 52 Rating, Deduct</i>	-253.80	
			<i>For Class 54 Rating, Add</i>	173.05	
			<i>For Class 55 Rating, Add</i>	384.63	
40 05 19 00-0741	EA		12" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,990.58	402.09
			<i>For Class 52 Rating, Deduct</i>	-261.95	
			<i>For Class 54 Rating, Add</i>	178.60	
			<i>For Class 55 Rating, Add</i>	396.97	
40 05 19 00-0742	EA		12" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,068.35	404.53
			<i>For Class 52 Rating, Deduct</i>	-270.10	
			<i>For Class 54 Rating, Add</i>	184.16	
			<i>For Class 55 Rating, Add</i>	409.32	
40 05 19 00-0743	EA		12" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,146.11	406.97
			<i>For Class 52 Rating, Deduct</i>	-278.25	
			<i>For Class 54 Rating, Add</i>	189.71	
			<i>For Class 55 Rating, Add</i>	421.67	
40 05 19 00-0744	EA		12" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,223.88	409.40
			<i>For Class 52 Rating, Deduct</i>	-286.39	
			<i>For Class 54 Rating, Add</i>	195.27	
			<i>For Class 55 Rating, Add</i>	434.02	
40 05 19 00-0745	EA		12" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,301.64	411.84
			<i>For Class 52 Rating, Deduct</i>	-294.54	
			<i>For Class 54 Rating, Add</i>	200.82	
			<i>For Class 55 Rating, Add</i>	446.36	
40 05 19 00-0746	EA		12" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,379.39	414.28
			<i>For Class 52 Rating, Deduct</i>	-302.69	
			<i>For Class 54 Rating, Add</i>	206.38	
			<i>For Class 55 Rating, Add</i>	458.71	
40 05 19 00-0747	EA		12" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,457.15	416.71
			<i>For Class 52 Rating, Deduct</i>	-310.83	
			<i>For Class 54 Rating, Add</i>	211.93	
			<i>For Class 55 Rating, Add</i>	471.06	
40 05 19 00-0748	EA		12" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,534.91	419.15
			<i>For Class 52 Rating, Deduct</i>	-318.98	
			<i>For Class 54 Rating, Add</i>	217.49	
			<i>For Class 55 Rating, Add</i>	483.40	
40 05 19 00-0749	EA		12" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,612.68	421.59
			<i>For Class 52 Rating, Deduct</i>	-327.13	
			<i>For Class 54 Rating, Add</i>	223.04	
			<i>For Class 55 Rating, Add</i>	495.75	
40 05 19 00-0750	EA		12" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,690.44	424.03
			<i>For Class 52 Rating, Deduct</i>	-335.28	
			<i>For Class 54 Rating, Add</i>	228.60	
			<i>For Class 55 Rating, Add</i>	508.10	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0751 EA 12" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,768.20	426.45
<i>For Class 52 Rating, Deduct</i>	-343.43	
<i>For Class 54 Rating, Add</i>	234.15	
<i>For Class 55 Rating, Add</i>	520.45	
40 05 19 00-0752 EA 12" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,845.96	428.89
<i>For Class 52 Rating, Deduct</i>	-351.57	
<i>For Class 54 Rating, Add</i>	239.71	
<i>For Class 55 Rating, Add</i>	532.79	
40 05 19 00-0753 EA 12" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,923.72	431.33
<i>For Class 52 Rating, Deduct</i>	-359.72	
<i>For Class 54 Rating, Add</i>	245.26	
<i>For Class 55 Rating, Add</i>	545.14	
40 05 19 00-0754 EA 12" Flanged x Grooved (FxG), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,001.48	433.77
<i>For Class 52 Rating, Deduct</i>	-367.87	
<i>For Class 54 Rating, Add</i>	250.82	
<i>For Class 55 Rating, Add</i>	557.49	
40 05 19 00-0755 14" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0554)		
40 05 19 00-0756 EA 14" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,411.73	409.40
<i>For Class 52 Rating, Deduct</i>	-87.06	
<i>For Class 54 Rating, Add</i>	59.36	
<i>For Class 55 Rating, Add</i>	131.93	
40 05 19 00-0757 EA 14" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,505.72	411.84
<i>For Class 52 Rating, Deduct</i>	-96.99	
<i>For Class 54 Rating, Add</i>	66.13	
<i>For Class 55 Rating, Add</i>	146.98	
40 05 19 00-0758 EA 14" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,599.72	414.28
<i>For Class 52 Rating, Deduct</i>	-106.92	
<i>For Class 54 Rating, Add</i>	72.90	
<i>For Class 55 Rating, Add</i>	162.04	
40 05 19 00-0759 EA 14" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,693.71	416.71
<i>For Class 52 Rating, Deduct</i>	-116.86	
<i>For Class 54 Rating, Add</i>	79.67	
<i>For Class 55 Rating, Add</i>	177.09	
40 05 19 00-0760 EA 14" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,787.70	419.15
<i>For Class 52 Rating, Deduct</i>	-126.79	
<i>For Class 54 Rating, Add</i>	86.45	
<i>For Class 55 Rating, Add</i>	192.14	
40 05 19 00-0761 EA 14" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,881.70	421.59
<i>For Class 52 Rating, Deduct</i>	-136.72	
<i>For Class 54 Rating, Add</i>	93.22	
<i>For Class 55 Rating, Add</i>	207.20	
40 05 19 00-0762 EA 14" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,975.70	424.03
<i>For Class 52 Rating, Deduct</i>	-146.66	
<i>For Class 54 Rating, Add</i>	99.99	
<i>For Class 55 Rating, Add</i>	222.25	
40 05 19 00-0763 EA 14" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,069.69	426.45
<i>For Class 52 Rating, Deduct</i>	-156.59	
<i>For Class 54 Rating, Add</i>	106.77	
<i>For Class 55 Rating, Add</i>	237.30	
40 05 19 00-0764 EA 14" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,163.68	428.89
<i>For Class 52 Rating, Deduct</i>	-166.52	
<i>For Class 54 Rating, Add</i>	113.54	
<i>For Class 55 Rating, Add</i>	252.36	
40 05 19 00-0765 EA 14" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,257.69	431.33
<i>For Class 52 Rating, Deduct</i>	-176.46	
<i>For Class 54 Rating, Add</i>	120.31	
<i>For Class 55 Rating, Add</i>	267.41	
40 05 19 00-0766 EA 14" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,351.68	433.77
<i>For Class 52 Rating, Deduct</i>	-186.39	
<i>For Class 54 Rating, Add</i>	127.08	
<i>For Class 55 Rating, Add</i>	282.46	
40 05 19 00-0767 EA 14" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,445.67	436.20
<i>For Class 52 Rating, Deduct</i>	-196.32	
<i>For Class 54 Rating, Add</i>	133.86	
<i>For Class 55 Rating, Add</i>	297.52	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0768	EA		14" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,539.66	438.64
			<i>For Class 52 Rating, Deduct</i>	-206.26	
			<i>For Class 54 Rating, Add</i>	140.63	
			<i>For Class 55 Rating, Add</i>	312.57	
40 05 19 00-0769	EA		14" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,633.66	441.08
			<i>For Class 52 Rating, Deduct</i>	-216.19	
			<i>For Class 54 Rating, Add</i>	147.40	
			<i>For Class 55 Rating, Add</i>	327.63	
40 05 19 00-0770	EA		14" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,727.66	443.52
			<i>For Class 52 Rating, Deduct</i>	-226.12	
			<i>For Class 54 Rating, Add</i>	154.17	
			<i>For Class 55 Rating, Add</i>	342.68	
40 05 19 00-0771	EA		14" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,821.65	445.95
			<i>For Class 52 Rating, Deduct</i>	-236.06	
			<i>For Class 54 Rating, Add</i>	160.95	
			<i>For Class 55 Rating, Add</i>	357.73	
40 05 19 00-0772	EA		14" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,915.66	448.39
			<i>For Class 52 Rating, Deduct</i>	-245.99	
			<i>For Class 54 Rating, Add</i>	167.72	
			<i>For Class 55 Rating, Add</i>	372.79	
40 05 19 00-0773	EA		14" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,009.64	450.83
			<i>For Class 52 Rating, Deduct</i>	-255.92	
			<i>For Class 54 Rating, Add</i>	174.49	
			<i>For Class 55 Rating, Add</i>	387.84	
40 05 19 00-0774	EA		14" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,103.63	453.27
			<i>For Class 52 Rating, Deduct</i>	-265.86	
			<i>For Class 54 Rating, Add</i>	181.27	
			<i>For Class 55 Rating, Add</i>	402.89	
40 05 19 00-0775	EA		14" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,197.64	455.70
			<i>For Class 52 Rating, Deduct</i>	-275.79	
			<i>For Class 54 Rating, Add</i>	188.04	
			<i>For Class 55 Rating, Add</i>	417.95	
40 05 19 00-0776	EA		14" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,291.63	458.14
			<i>For Class 52 Rating, Deduct</i>	-285.72	
			<i>For Class 54 Rating, Add</i>	194.81	
			<i>For Class 55 Rating, Add</i>	433.00	
40 05 19 00-0777	EA		14" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,385.63	460.58
			<i>For Class 52 Rating, Deduct</i>	-295.66	
			<i>For Class 54 Rating, Add</i>	201.58	
			<i>For Class 55 Rating, Add</i>	448.05	
40 05 19 00-0778	EA		14" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,479.61	463.02
			<i>For Class 52 Rating, Deduct</i>	-305.59	
			<i>For Class 54 Rating, Add</i>	208.36	
			<i>For Class 55 Rating, Add</i>	463.11	
40 05 19 00-0779	EA		14" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,573.62	465.45
			<i>For Class 52 Rating, Deduct</i>	-315.52	
			<i>For Class 54 Rating, Add</i>	215.13	
			<i>For Class 55 Rating, Add</i>	478.16	
40 05 19 00-0780	EA		14" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,667.61	467.89
			<i>For Class 52 Rating, Deduct</i>	-325.46	
			<i>For Class 54 Rating, Add</i>	221.90	
			<i>For Class 55 Rating, Add</i>	493.21	
40 05 19 00-0781	EA		14" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,761.60	470.32
			<i>For Class 52 Rating, Deduct</i>	-335.39	
			<i>For Class 54 Rating, Add</i>	228.67	
			<i>For Class 55 Rating, Add</i>	508.27	
40 05 19 00-0782	EA		14" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,855.60	472.76
			<i>For Class 52 Rating, Deduct</i>	-345.32	
			<i>For Class 54 Rating, Add</i>	235.45	
			<i>For Class 55 Rating, Add</i>	523.32	
40 05 19 00-0783	EA		14" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,949.59	475.19
			<i>For Class 52 Rating, Deduct</i>	-355.26	
			<i>For Class 54 Rating, Add</i>	242.22	
			<i>For Class 55 Rating, Add</i>	538.37	
40 05 19 00-0784	EA		14" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,043.59	477.63
			<i>For Class 52 Rating, Deduct</i>	-365.19	
			<i>For Class 54 Rating, Add</i>	248.99	
			<i>For Class 55 Rating, Add</i>	553.43	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0785 EA 14" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,137.58	480.07
For Class 52 Rating, Deduct	-375.12	
For Class 54 Rating, Add	255.77	
For Class 55 Rating, Add	568.48	
40 05 19 00-0786 EA 14" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,231.59	482.51
For Class 52 Rating, Deduct	-385.06	
For Class 54 Rating, Add	262.54	
For Class 55 Rating, Add	583.54	
40 05 19 00-0787 EA 14" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,325.57	484.94
For Class 52 Rating, Deduct	-394.99	
For Class 54 Rating, Add	269.31	
For Class 55 Rating, Add	598.59	
40 05 19 00-0788 EA 14" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,419.56	487.38
For Class 52 Rating, Deduct	-404.92	
For Class 54 Rating, Add	276.08	
For Class 55 Rating, Add	613.64	
40 05 19 00-0789 EA 14" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,513.57	489.82
For Class 52 Rating, Deduct	-414.86	
For Class 54 Rating, Add	282.86	
For Class 55 Rating, Add	628.70	
40 05 19 00-0790 EA 14" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,607.56	492.26
For Class 52 Rating, Deduct	-424.79	
For Class 54 Rating, Add	289.63	
For Class 55 Rating, Add	643.75	
40 05 19 00-0791 EA 14" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,701.56	494.69
For Class 52 Rating, Deduct	-434.72	
For Class 54 Rating, Add	296.40	
For Class 55 Rating, Add	658.80	
40 05 19 00-0792 EA 14" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,795.55	497.13
For Class 52 Rating, Deduct	-444.66	
For Class 54 Rating, Add	303.17	
For Class 55 Rating, Add	673.86	
40 05 19 00-0793 EA 14" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,889.55	499.57
For Class 52 Rating, Deduct	-454.59	
For Class 54 Rating, Add	309.95	
For Class 55 Rating, Add	688.91	
40 05 19 00-0794 16" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0554)</small>		
40 05 19 00-0795 EA 16" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,645.43	467.89
For Class 52 Rating, Deduct	-103.02	
For Class 54 Rating, Add	70.24	
For Class 55 Rating, Add	156.12	
40 05 19 00-0796 EA 16" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,754.65	470.32
For Class 52 Rating, Deduct	-114.62	
For Class 54 Rating, Add	78.15	
For Class 55 Rating, Add	173.71	
40 05 19 00-0797 EA 16" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,863.86	472.76
For Class 52 Rating, Deduct	-126.23	
For Class 54 Rating, Add	86.07	
For Class 55 Rating, Add	191.30	
40 05 19 00-0798 EA 16" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,973.07	475.19
For Class 52 Rating, Deduct	-137.84	
For Class 54 Rating, Add	93.98	
For Class 55 Rating, Add	208.89	
40 05 19 00-0799 EA 16" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,082.29	477.63
For Class 52 Rating, Deduct	-149.45	
For Class 54 Rating, Add	101.90	
For Class 55 Rating, Add	226.48	
40 05 19 00-0800 EA 16" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,191.51	480.07
For Class 52 Rating, Deduct	-161.05	
For Class 54 Rating, Add	109.81	
For Class 55 Rating, Add	244.07	
40 05 19 00-0801 EA 16" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,300.73	482.51
For Class 52 Rating, Deduct	-172.66	
For Class 54 Rating, Add	117.72	
For Class 55 Rating, Add	261.66	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0802	EA		16" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,409.93	484.94
			<i>For Class 52 Rating, Deduct</i>	-184.27	
			<i>For Class 54 Rating, Add</i>	125.64	
			<i>For Class 55 Rating, Add</i>	279.25	
40 05 19 00-0803	EA		16" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,519.14	487.38
			<i>For Class 52 Rating, Deduct</i>	-195.88	
			<i>For Class 54 Rating, Add</i>	133.55	
			<i>For Class 55 Rating, Add</i>	296.84	
40 05 19 00-0804	EA		16" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,618.22	489.82
			<i>For Class 52 Rating, Deduct</i>	-206.37	
			<i>For Class 54 Rating, Add</i>	140.71	
			<i>For Class 55 Rating, Add</i>	312.74	
40 05 19 00-0805	EA		16" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,737.58	492.26
			<i>For Class 52 Rating, Deduct</i>	-219.09	
			<i>For Class 54 Rating, Add</i>	149.38	
			<i>For Class 55 Rating, Add</i>	332.02	
40 05 19 00-0806	EA		16" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,846.80	494.69
			<i>For Class 52 Rating, Deduct</i>	-230.70	
			<i>For Class 54 Rating, Add</i>	157.29	
			<i>For Class 55 Rating, Add</i>	349.61	
40 05 19 00-0807	EA		16" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,956.00	497.13
			<i>For Class 52 Rating, Deduct</i>	-242.31	
			<i>For Class 54 Rating, Add</i>	165.21	
			<i>For Class 55 Rating, Add</i>	367.20	
40 05 19 00-0808	EA		16" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,065.23	499.57
			<i>For Class 52 Rating, Deduct</i>	-253.91	
			<i>For Class 54 Rating, Add</i>	173.12	
			<i>For Class 55 Rating, Add</i>	384.80	
40 05 19 00-0809	EA		16" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,174.44	502.01
			<i>For Class 52 Rating, Deduct</i>	-265.52	
			<i>For Class 54 Rating, Add</i>	181.04	
			<i>For Class 55 Rating, Add</i>	402.39	
40 05 19 00-0810	EA		16" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,283.66	504.44
			<i>For Class 52 Rating, Deduct</i>	-277.13	
			<i>For Class 54 Rating, Add</i>	188.95	
			<i>For Class 55 Rating, Add</i>	419.98	
40 05 19 00-0811	EA		16" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,392.87	506.88
			<i>For Class 52 Rating, Deduct</i>	-288.74	
			<i>For Class 54 Rating, Add</i>	196.87	
			<i>For Class 55 Rating, Add</i>	437.57	
40 05 19 00-0812	EA		16" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,502.08	509.32
			<i>For Class 52 Rating, Deduct</i>	-300.34	
			<i>For Class 54 Rating, Add</i>	204.78	
			<i>For Class 55 Rating, Add</i>	455.16	
40 05 19 00-0813	EA		16" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,611.30	511.76
			<i>For Class 52 Rating, Deduct</i>	-311.95	
			<i>For Class 54 Rating, Add</i>	212.69	
			<i>For Class 55 Rating, Add</i>	472.75	
40 05 19 00-0814	EA		16" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,720.51	514.18
			<i>For Class 52 Rating, Deduct</i>	-323.56	
			<i>For Class 54 Rating, Add</i>	220.61	
			<i>For Class 55 Rating, Add</i>	490.34	
40 05 19 00-0815	EA		16" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,829.73	516.62
			<i>For Class 52 Rating, Deduct</i>	-335.17	
			<i>For Class 54 Rating, Add</i>	228.52	
			<i>For Class 55 Rating, Add</i>	507.93	
40 05 19 00-0816	EA		16" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,938.95	519.06
			<i>For Class 52 Rating, Deduct</i>	-346.77	
			<i>For Class 54 Rating, Add</i>	236.44	
			<i>For Class 55 Rating, Add</i>	525.52	
40 05 19 00-0817	EA		16" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,048.16	521.50
			<i>For Class 52 Rating, Deduct</i>	-358.38	
			<i>For Class 54 Rating, Add</i>	244.35	
			<i>For Class 55 Rating, Add</i>	543.11	
40 05 19 00-0818	EA		16" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,157.37	523.93
			<i>For Class 52 Rating, Deduct</i>	-369.99	
			<i>For Class 54 Rating, Add</i>	252.26	
			<i>For Class 55 Rating, Add</i>	560.70	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0819 EA 16" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,266.58	526.37
<i>For Class 52 Rating, Deduct</i>	-381.60	
<i>For Class 54 Rating, Add</i>	260.18	
<i>For Class 55 Rating, Add</i>	578.29	
40 05 19 00-0820 EA 16" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,375.81	528.81
<i>For Class 52 Rating, Deduct</i>	-393.20	
<i>For Class 54 Rating, Add</i>	268.09	
<i>For Class 55 Rating, Add</i>	595.88	
40 05 19 00-0821 EA 16" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,485.02	531.25
<i>For Class 52 Rating, Deduct</i>	-404.81	
<i>For Class 54 Rating, Add</i>	276.01	
<i>For Class 55 Rating, Add</i>	613.47	
40 05 19 00-0822 EA 16" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,594.23	533.68
<i>For Class 52 Rating, Deduct</i>	-416.42	
<i>For Class 54 Rating, Add</i>	283.92	
<i>For Class 55 Rating, Add</i>	631.06	
40 05 19 00-0823 EA 16" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,703.44	536.12
<i>For Class 52 Rating, Deduct</i>	-428.03	
<i>For Class 54 Rating, Add</i>	291.84	
<i>For Class 55 Rating, Add</i>	648.65	
40 05 19 00-0824 EA 16" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,812.67	538.56
<i>For Class 52 Rating, Deduct</i>	-439.63	
<i>For Class 54 Rating, Add</i>	299.75	
<i>For Class 55 Rating, Add</i>	666.24	
40 05 19 00-0825 EA 16" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,921.88	541.00
<i>For Class 52 Rating, Deduct</i>	-451.24	
<i>For Class 54 Rating, Add</i>	307.66	
<i>For Class 55 Rating, Add</i>	683.84	
40 05 19 00-0826 EA 16" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,031.09	543.43
<i>For Class 52 Rating, Deduct</i>	-462.85	
<i>For Class 54 Rating, Add</i>	315.58	
<i>For Class 55 Rating, Add</i>	701.43	
40 05 19 00-0827 EA 16" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,140.30	545.87
<i>For Class 52 Rating, Deduct</i>	-474.46	
<i>For Class 54 Rating, Add</i>	323.49	
<i>For Class 55 Rating, Add</i>	719.02	
40 05 19 00-0828 EA 16" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,249.52	548.31
<i>For Class 52 Rating, Deduct</i>	-486.06	
<i>For Class 54 Rating, Add</i>	331.41	
<i>For Class 55 Rating, Add</i>	736.61	
40 05 19 00-0829 EA 16" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,358.74	550.75
<i>For Class 52 Rating, Deduct</i>	-497.67	
<i>For Class 54 Rating, Add</i>	339.32	
<i>For Class 55 Rating, Add</i>	754.20	
40 05 19 00-0830 EA 16" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,467.95	553.18
<i>For Class 52 Rating, Deduct</i>	-509.28	
<i>For Class 54 Rating, Add</i>	347.24	
<i>For Class 55 Rating, Add</i>	771.79	
40 05 19 00-0831 EA 16" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,577.17	555.62
<i>For Class 52 Rating, Deduct</i>	-520.89	
<i>For Class 54 Rating, Add</i>	355.15	
<i>For Class 55 Rating, Add</i>	789.38	
40 05 19 00-0832 EA 16" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,686.38	558.06
<i>For Class 52 Rating, Deduct</i>	-532.49	
<i>For Class 54 Rating, Add</i>	363.06	
<i>For Class 55 Rating, Add</i>	806.97	
40 05 19 00-0833 18" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0554)		
40 05 19 00-0834 EA 18" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,910.04	527.35
<i>For Class 52 Rating, Deduct</i>	-122.21	
<i>For Class 54 Rating, Add</i>	83.33	
<i>For Class 55 Rating, Add</i>	185.21	
40 05 19 00-0835 EA 18" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,035.49	529.79
<i>For Class 52 Rating, Deduct</i>	-135.61	
<i>For Class 54 Rating, Add</i>	92.46	
<i>For Class 55 Rating, Add</i>	205.51	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0836	EA		18" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,160.94	532.22
			<i>For Class 52 Rating, Deduct</i>	-149.00	
			<i>For Class 54 Rating, Add</i>	101.59	
			<i>For Class 55 Rating, Add</i>	225.80	
40 05 19 00-0837	EA		18" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,286.39	534.66
			<i>For Class 52 Rating, Deduct</i>	-162.39	
			<i>For Class 54 Rating, Add</i>	110.72	
			<i>For Class 55 Rating, Add</i>	246.10	
40 05 19 00-0838	EA		18" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,411.84	537.10
			<i>For Class 52 Rating, Deduct</i>	-175.79	
			<i>For Class 54 Rating, Add</i>	119.85	
			<i>For Class 55 Rating, Add</i>	266.40	
40 05 19 00-0839	EA		18" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,537.28	539.53
			<i>For Class 52 Rating, Deduct</i>	-189.18	
			<i>For Class 54 Rating, Add</i>	128.99	
			<i>For Class 55 Rating, Add</i>	286.69	
40 05 19 00-0840	EA		18" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,662.74	541.97
			<i>For Class 52 Rating, Deduct</i>	-202.57	
			<i>For Class 54 Rating, Add</i>	138.12	
			<i>For Class 55 Rating, Add</i>	306.99	
40 05 19 00-0841	EA		18" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,788.19	544.41
			<i>For Class 52 Rating, Deduct</i>	-215.97	
			<i>For Class 54 Rating, Add</i>	147.25	
			<i>For Class 55 Rating, Add</i>	327.29	
40 05 19 00-0842	EA		18" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,913.64	546.85
			<i>For Class 52 Rating, Deduct</i>	-229.36	
			<i>For Class 54 Rating, Add</i>	156.38	
			<i>For Class 55 Rating, Add</i>	347.58	
40 05 19 00-0843	EA		18" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,039.08	549.28
			<i>For Class 52 Rating, Deduct</i>	-242.75	
			<i>For Class 54 Rating, Add</i>	165.51	
			<i>For Class 55 Rating, Add</i>	367.88	
40 05 19 00-0844	EA		18" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,164.53	551.72
			<i>For Class 52 Rating, Deduct</i>	-256.15	
			<i>For Class 54 Rating, Add</i>	174.65	
			<i>For Class 55 Rating, Add</i>	388.18	
40 05 19 00-0845	EA		18" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,289.99	554.16
			<i>For Class 52 Rating, Deduct</i>	-269.54	
			<i>For Class 54 Rating, Add</i>	183.78	
			<i>For Class 55 Rating, Add</i>	408.48	
40 05 19 00-0846	EA		18" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,415.43	556.60
			<i>For Class 52 Rating, Deduct</i>	-282.93	
			<i>For Class 54 Rating, Add</i>	192.91	
			<i>For Class 55 Rating, Add</i>	428.77	
40 05 19 00-0847	EA		18" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,540.88	559.03
			<i>For Class 52 Rating, Deduct</i>	-296.33	
			<i>For Class 54 Rating, Add</i>	202.04	
			<i>For Class 55 Rating, Add</i>	449.07	
40 05 19 00-0848	EA		18" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,666.33	561.47
			<i>For Class 52 Rating, Deduct</i>	-309.72	
			<i>For Class 54 Rating, Add</i>	211.17	
			<i>For Class 55 Rating, Add</i>	469.37	
40 05 19 00-0849	EA		18" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,791.77	563.91
			<i>For Class 52 Rating, Deduct</i>	-323.11	
			<i>For Class 54 Rating, Add</i>	220.30	
			<i>For Class 55 Rating, Add</i>	489.66	
40 05 19 00-0850	EA		18" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,917.23	566.34
			<i>For Class 52 Rating, Deduct</i>	-336.51	
			<i>For Class 54 Rating, Add</i>	229.44	
			<i>For Class 55 Rating, Add</i>	509.96	
40 05 19 00-0851	EA		18" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,042.68	568.77
			<i>For Class 52 Rating, Deduct</i>	-349.90	
			<i>For Class 54 Rating, Add</i>	238.57	
			<i>For Class 55 Rating, Add</i>	530.26	
40 05 19 00-0852	EA		18" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,168.12	571.21
			<i>For Class 52 Rating, Deduct</i>	-363.29	
			<i>For Class 54 Rating, Add</i>	247.70	
			<i>For Class 55 Rating, Add</i>	550.55	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0853 EA 18" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,293.57	573.65
<i>For Class 52 Rating, Deduct</i>	-376.69	
<i>For Class 54 Rating, Add</i>	256.83	
<i>For Class 55 Rating, Add</i>	570.85	
40 05 19 00-0854 EA 18" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,419.03	576.09
<i>For Class 52 Rating, Deduct</i>	-390.08	
<i>For Class 54 Rating, Add</i>	265.96	
<i>For Class 55 Rating, Add</i>	591.15	
40 05 19 00-0855 EA 18" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,544.47	578.52
<i>For Class 52 Rating, Deduct</i>	-403.47	
<i>For Class 54 Rating, Add</i>	275.09	
<i>For Class 55 Rating, Add</i>	611.44	
40 05 19 00-0856 EA 18" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,669.93	580.96
<i>For Class 52 Rating, Deduct</i>	-416.86	
<i>For Class 54 Rating, Add</i>	284.23	
<i>For Class 55 Rating, Add</i>	631.74	
40 05 19 00-0857 EA 18" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,795.37	583.40
<i>For Class 52 Rating, Deduct</i>	-430.26	
<i>For Class 54 Rating, Add</i>	293.36	
<i>For Class 55 Rating, Add</i>	652.04	
40 05 19 00-0858 EA 18" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,920.81	585.84
<i>For Class 52 Rating, Deduct</i>	-443.65	
<i>For Class 54 Rating, Add</i>	302.49	
<i>For Class 55 Rating, Add</i>	672.33	
40 05 19 00-0859 EA 18" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,046.27	588.27
<i>For Class 52 Rating, Deduct</i>	-457.04	
<i>For Class 54 Rating, Add</i>	311.62	
<i>For Class 55 Rating, Add</i>	692.63	
40 05 19 00-0860 EA 18" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,171.72	590.71
<i>For Class 52 Rating, Deduct</i>	-470.44	
<i>For Class 54 Rating, Add</i>	320.75	
<i>For Class 55 Rating, Add</i>	712.93	
40 05 19 00-0861 EA 18" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,297.17	593.15
<i>For Class 52 Rating, Deduct</i>	-483.83	
<i>For Class 54 Rating, Add</i>	329.88	
<i>For Class 55 Rating, Add</i>	733.22	
40 05 19 00-0862 EA 18" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,422.61	595.59
<i>For Class 52 Rating, Deduct</i>	-497.22	
<i>For Class 54 Rating, Add</i>	339.02	
<i>For Class 55 Rating, Add</i>	753.52	
40 05 19 00-0863 EA 18" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,548.07	598.02
<i>For Class 52 Rating, Deduct</i>	-510.62	
<i>For Class 54 Rating, Add</i>	348.15	
<i>For Class 55 Rating, Add</i>	773.82	
40 05 19 00-0864 EA 18" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,673.51	600.46
<i>For Class 52 Rating, Deduct</i>	-524.01	
<i>For Class 54 Rating, Add</i>	357.28	
<i>For Class 55 Rating, Add</i>	794.11	
40 05 19 00-0865 EA 18" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,798.96	602.90
<i>For Class 52 Rating, Deduct</i>	-537.40	
<i>For Class 54 Rating, Add</i>	366.41	
<i>For Class 55 Rating, Add</i>	814.41	
40 05 19 00-0866 EA 18" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,924.42	605.34
<i>For Class 52 Rating, Deduct</i>	-550.80	
<i>For Class 54 Rating, Add</i>	375.54	
<i>For Class 55 Rating, Add</i>	834.71	
40 05 19 00-0867 EA 18" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,049.86	607.77
<i>For Class 52 Rating, Deduct</i>	-564.19	
<i>For Class 54 Rating, Add</i>	384.68	
<i>For Class 55 Rating, Add</i>	855.01	
40 05 19 00-0868 EA 18" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,175.31	610.20
<i>For Class 52 Rating, Deduct</i>	-577.58	
<i>For Class 54 Rating, Add</i>	393.81	
<i>For Class 55 Rating, Add</i>	875.30	
40 05 19 00-0869 EA 18" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,300.76	612.64
<i>For Class 52 Rating, Deduct</i>	-590.98	
<i>For Class 54 Rating, Add</i>	402.94	
<i>For Class 55 Rating, Add</i>	895.60	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0870	EA		18" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,426.22	615.08
			<i>For Class 52 Rating, Deduct</i>	-604.37	
			<i>For Class 54 Rating, Add</i>	412.07	
			<i>For Class 55 Rating, Add</i>	915.90	
40 05 19 00-0871	EA		18" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,551.66	617.51
			<i>For Class 52 Rating, Deduct</i>	-617.76	
			<i>For Class 54 Rating, Add</i>	421.20	
			<i>For Class 55 Rating, Add</i>	936.19	
40 05 19 00-0872			20" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0854)</small>		
40 05 19 00-0873	EA		20" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,209.72	601.92
			<i>For Class 52 Rating, Deduct</i>	-142.75	
			<i>For Class 54 Rating, Add</i>	97.33	
			<i>For Class 55 Rating, Add</i>	216.33	
40 05 19 00-0874	EA		20" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,353.43	604.35
			<i>For Class 52 Rating, Deduct</i>	-158.15	
			<i>For Class 54 Rating, Add</i>	107.83	
			<i>For Class 55 Rating, Add</i>	239.67	
40 05 19 00-0875	EA		20" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,497.15	606.79
			<i>For Class 52 Rating, Deduct</i>	-173.55	
			<i>For Class 54 Rating, Add</i>	118.33	
			<i>For Class 55 Rating, Add</i>	263.01	
40 05 19 00-0876	EA		20" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,640.86	609.22
			<i>For Class 52 Rating, Deduct</i>	-188.96	
			<i>For Class 54 Rating, Add</i>	128.83	
			<i>For Class 55 Rating, Add</i>	286.36	
40 05 19 00-0877	EA		20" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,784.58	611.66
			<i>For Class 52 Rating, Deduct</i>	-204.36	
			<i>For Class 54 Rating, Add</i>	139.34	
			<i>For Class 55 Rating, Add</i>	309.70	
40 05 19 00-0878	EA		20" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,928.29	614.10
			<i>For Class 52 Rating, Deduct</i>	-219.76	
			<i>For Class 54 Rating, Add</i>	149.84	
			<i>For Class 55 Rating, Add</i>	333.04	
40 05 19 00-0879	EA		20" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,071.99	616.54
			<i>For Class 52 Rating, Deduct</i>	-235.16	
			<i>For Class 54 Rating, Add</i>	160.34	
			<i>For Class 55 Rating, Add</i>	356.38	
40 05 19 00-0880	EA		20" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,215.71	618.97
			<i>For Class 52 Rating, Deduct</i>	-250.57	
			<i>For Class 54 Rating, Add</i>	170.84	
			<i>For Class 55 Rating, Add</i>	379.72	
40 05 19 00-0881	EA		20" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,359.42	621.41
			<i>For Class 52 Rating, Deduct</i>	-265.97	
			<i>For Class 54 Rating, Add</i>	181.34	
			<i>For Class 55 Rating, Add</i>	403.06	
40 05 19 00-0882	EA		20" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,503.14	623.85
			<i>For Class 52 Rating, Deduct</i>	-281.37	
			<i>For Class 54 Rating, Add</i>	191.84	
			<i>For Class 55 Rating, Add</i>	426.40	
40 05 19 00-0883	EA		20" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,646.85	626.29
			<i>For Class 52 Rating, Deduct</i>	-296.77	
			<i>For Class 54 Rating, Add</i>	202.34	
			<i>For Class 55 Rating, Add</i>	449.74	
40 05 19 00-0884	EA		20" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,790.56	628.72
			<i>For Class 52 Rating, Deduct</i>	-312.17	
			<i>For Class 54 Rating, Add</i>	212.85	
			<i>For Class 55 Rating, Add</i>	473.09	
40 05 19 00-0885	EA		20" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,934.27	631.16
			<i>For Class 52 Rating, Deduct</i>	-327.58	
			<i>For Class 54 Rating, Add</i>	223.35	
			<i>For Class 55 Rating, Add</i>	496.43	
40 05 19 00-0886	EA		20" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,077.98	633.60
			<i>For Class 52 Rating, Deduct</i>	-342.98	
			<i>For Class 54 Rating, Add</i>	233.85	
			<i>For Class 55 Rating, Add</i>	519.77	



	MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0887	EA			20" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,221.70	636.04
				For Class 52 Rating, Deduct	-358.38	
				For Class 54 Rating, Add	244.35	
				For Class 55 Rating, Add	543.11	
40 05 19 00-0888	EA			20" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,365.41	638.47
				For Class 52 Rating, Deduct	-373.78	
				For Class 54 Rating, Add	254.85	
				For Class 55 Rating, Add	566.45	
40 05 19 00-0889	EA			20" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,509.12	640.91
				For Class 52 Rating, Deduct	-389.19	
				For Class 54 Rating, Add	265.35	
				For Class 55 Rating, Add	589.79	
40 05 19 00-0890	EA			20" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,652.83	643.35
				For Class 52 Rating, Deduct	-404.59	
				For Class 54 Rating, Add	275.86	
				For Class 55 Rating, Add	613.13	
40 05 19 00-0891	EA			20" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,796.55	645.79
				For Class 52 Rating, Deduct	-419.99	
				For Class 54 Rating, Add	286.36	
				For Class 55 Rating, Add	636.48	
40 05 19 00-0892	EA			20" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,940.26	648.21
				For Class 52 Rating, Deduct	-435.39	
				For Class 54 Rating, Add	296.86	
				For Class 55 Rating, Add	659.82	
40 05 19 00-0893	EA			20" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,083.97	650.65
				For Class 52 Rating, Deduct	-450.79	
				For Class 54 Rating, Add	307.36	
				For Class 55 Rating, Add	683.16	
40 05 19 00-0894	EA			20" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,227.68	653.09
				For Class 52 Rating, Deduct	-466.20	
				For Class 54 Rating, Add	317.86	
				For Class 55 Rating, Add	706.50	
40 05 19 00-0895	EA			20" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,371.39	655.53
				For Class 52 Rating, Deduct	-481.60	
				For Class 54 Rating, Add	328.36	
				For Class 55 Rating, Add	729.84	
40 05 19 00-0896	EA			20" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,515.11	657.96
				For Class 52 Rating, Deduct	-497.00	
				For Class 54 Rating, Add	338.86	
				For Class 55 Rating, Add	753.18	
40 05 19 00-0897	EA			20" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,658.82	660.40
				For Class 52 Rating, Deduct	-512.40	
				For Class 54 Rating, Add	349.37	
				For Class 55 Rating, Add	776.52	
40 05 19 00-0898	EA			20" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,802.54	662.84
				For Class 52 Rating, Deduct	-527.81	
				For Class 54 Rating, Add	359.87	
				For Class 55 Rating, Add	799.86	
40 05 19 00-0899	EA			20" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,946.24	665.28
				For Class 52 Rating, Deduct	-543.21	
				For Class 54 Rating, Add	370.37	
				For Class 55 Rating, Add	823.21	
40 05 19 00-0900	EA			20" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,089.95	667.71
				For Class 52 Rating, Deduct	-558.61	
				For Class 54 Rating, Add	380.87	
				For Class 55 Rating, Add	846.55	
40 05 19 00-0901	EA			20" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,233.67	670.15
				For Class 52 Rating, Deduct	-574.01	
				For Class 54 Rating, Add	391.37	
				For Class 55 Rating, Add	869.89	
40 05 19 00-0902	EA			20" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,377.38	672.59
				For Class 52 Rating, Deduct	-589.41	
				For Class 54 Rating, Add	401.87	
				For Class 55 Rating, Add	893.23	
40 05 19 00-0903	EA			20" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,521.10	675.03
				For Class 52 Rating, Deduct	-604.82	
				For Class 54 Rating, Add	412.37	
				For Class 55 Rating, Add	916.57	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0904	EA		20" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,664.80	677.46
			<i>For Class 52 Rating, Deduct</i>	-620.22	
			<i>For Class 54 Rating, Add</i>	422.88	
			<i>For Class 55 Rating, Add</i>	939.91	
40 05 19 00-0905	EA		20" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,808.52	679.90
			<i>For Class 52 Rating, Deduct</i>	-635.62	
			<i>For Class 54 Rating, Add</i>	433.38	
			<i>For Class 55 Rating, Add</i>	963.25	
40 05 19 00-0906	EA		20" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,952.24	682.34
			<i>For Class 52 Rating, Deduct</i>	-651.02	
			<i>For Class 54 Rating, Add</i>	443.88	
			<i>For Class 55 Rating, Add</i>	986.60	
40 05 19 00-0907	EA		20" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,095.96	684.78
			<i>For Class 52 Rating, Deduct</i>	-666.43	
			<i>For Class 54 Rating, Add</i>	454.38	
			<i>For Class 55 Rating, Add</i>	1,009.94	
40 05 19 00-0908	EA		20" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,239.67	687.21
			<i>For Class 52 Rating, Deduct</i>	-681.83	
			<i>For Class 54 Rating, Add</i>	464.88	
			<i>For Class 55 Rating, Add</i>	1,033.28	
40 05 19 00-0909	EA		20" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,383.37	689.65
			<i>For Class 52 Rating, Deduct</i>	-697.23	
			<i>For Class 54 Rating, Add</i>	475.38	
			<i>For Class 55 Rating, Add</i>	1,056.62	
40 05 19 00-0910	EA		20" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,527.09	692.09
			<i>For Class 52 Rating, Deduct</i>	-712.63	
			<i>For Class 54 Rating, Add</i>	485.89	
			<i>For Class 55 Rating, Add</i>	1,079.96	
40 05 19 00-0911			24" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-0554)		
40 05 19 00-0912	EA		24" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,717.81	711.58
			<i>For Class 52 Rating, Deduct</i>	-180.36	
			<i>For Class 54 Rating, Add</i>	122.97	
			<i>For Class 55 Rating, Add</i>	273.33	
40 05 19 00-0913	EA		24" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,895.00	714.01
			<i>For Class 52 Rating, Deduct</i>	-199.45	
			<i>For Class 54 Rating, Add</i>	135.99	
			<i>For Class 55 Rating, Add</i>	302.25	
40 05 19 00-0914	EA		24" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,072.20	716.45
			<i>For Class 52 Rating, Deduct</i>	-218.53	
			<i>For Class 54 Rating, Add</i>	149.00	
			<i>For Class 55 Rating, Add</i>	331.18	
40 05 19 00-0915	EA		24" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,249.40	718.89
			<i>For Class 52 Rating, Deduct</i>	-237.62	
			<i>For Class 54 Rating, Add</i>	162.01	
			<i>For Class 55 Rating, Add</i>	360.10	
40 05 19 00-0916	EA		24" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,426.59	721.33
			<i>For Class 52 Rating, Deduct</i>	-256.70	
			<i>For Class 54 Rating, Add</i>	175.03	
			<i>For Class 55 Rating, Add</i>	389.02	
40 05 19 00-0917	EA		24" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,603.79	723.76
			<i>For Class 52 Rating, Deduct</i>	-275.79	
			<i>For Class 54 Rating, Add</i>	188.04	
			<i>For Class 55 Rating, Add</i>	417.95	
40 05 19 00-0918	EA		24" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,780.98	726.20
			<i>For Class 52 Rating, Deduct</i>	-294.87	
			<i>For Class 54 Rating, Add</i>	201.05	
			<i>For Class 55 Rating, Add</i>	446.87	
40 05 19 00-0919	EA		24" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,958.17	728.64
			<i>For Class 52 Rating, Deduct</i>	-313.96	
			<i>For Class 54 Rating, Add</i>	214.06	
			<i>For Class 55 Rating, Add</i>	475.79	
40 05 19 00-0920	EA		24" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,135.38	731.08
			<i>For Class 52 Rating, Deduct</i>	-333.05	
			<i>For Class 54 Rating, Add</i>	227.08	
			<i>For Class 55 Rating, Add</i>	504.72	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0921 EA 24" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,312.57	733.51
<i>For Class 52 Rating, Deduct</i>	-352.13	
<i>For Class 54 Rating, Add</i>	240.09	
<i>For Class 55 Rating, Add</i>	533.64	
40 05 19 00-0922 EA 24" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,489.77	735.95
<i>For Class 52 Rating, Deduct</i>	-371.22	
<i>For Class 54 Rating, Add</i>	253.10	
<i>For Class 55 Rating, Add</i>	562.56	
40 05 19 00-0923 EA 24" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,666.96	738.38
<i>For Class 52 Rating, Deduct</i>	-390.30	
<i>For Class 54 Rating, Add</i>	266.12	
<i>For Class 55 Rating, Add</i>	591.48	
40 05 19 00-0924 EA 24" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,844.15	740.82
<i>For Class 52 Rating, Deduct</i>	-409.39	
<i>For Class 54 Rating, Add</i>	279.13	
<i>For Class 55 Rating, Add</i>	620.41	
40 05 19 00-0925 EA 24" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,021.35	743.25
<i>For Class 52 Rating, Deduct</i>	-428.47	
<i>For Class 54 Rating, Add</i>	292.14	
<i>For Class 55 Rating, Add</i>	649.33	
40 05 19 00-0926 EA 24" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,198.55	745.69
<i>For Class 52 Rating, Deduct</i>	-447.56	
<i>For Class 54 Rating, Add</i>	305.15	
<i>For Class 55 Rating, Add</i>	678.25	
40 05 19 00-0927 EA 24" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,375.75	748.13
<i>For Class 52 Rating, Deduct</i>	-466.64	
<i>For Class 54 Rating, Add</i>	318.17	
<i>For Class 55 Rating, Add</i>	707.18	
40 05 19 00-0928 EA 24" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,552.93	750.57
<i>For Class 52 Rating, Deduct</i>	-485.73	
<i>For Class 54 Rating, Add</i>	331.18	
<i>For Class 55 Rating, Add</i>	736.10	
40 05 19 00-0929 EA 24" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,730.14	753.00
<i>For Class 52 Rating, Deduct</i>	-504.81	
<i>For Class 54 Rating, Add</i>	344.19	
<i>For Class 55 Rating, Add</i>	765.02	
40 05 19 00-0930 EA 24" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,907.33	755.44
<i>For Class 52 Rating, Deduct</i>	-523.90	
<i>For Class 54 Rating, Add</i>	357.20	
<i>For Class 55 Rating, Add</i>	793.95	
40 05 19 00-0931 EA 24" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,084.53	757.88
<i>For Class 52 Rating, Deduct</i>	-542.98	
<i>For Class 54 Rating, Add</i>	370.22	
<i>For Class 55 Rating, Add</i>	822.87	
40 05 19 00-0932 EA 24" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,261.72	760.32
<i>For Class 52 Rating, Deduct</i>	-562.07	
<i>For Class 54 Rating, Add</i>	383.23	
<i>For Class 55 Rating, Add</i>	851.79	
40 05 19 00-0933 EA 24" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,438.91	762.75
<i>For Class 52 Rating, Deduct</i>	-581.16	
<i>For Class 54 Rating, Add</i>	396.24	
<i>For Class 55 Rating, Add</i>	880.71	
40 05 19 00-0934 EA 24" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,616.11	765.19
<i>For Class 52 Rating, Deduct</i>	-600.24	
<i>For Class 54 Rating, Add</i>	409.25	
<i>For Class 55 Rating, Add</i>	909.64	
40 05 19 00-0935 EA 24" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,793.31	767.63
<i>For Class 52 Rating, Deduct</i>	-619.33	
<i>For Class 54 Rating, Add</i>	422.27	
<i>For Class 55 Rating, Add</i>	938.56	
40 05 19 00-0936 EA 24" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,970.51	770.07
<i>For Class 52 Rating, Deduct</i>	-638.41	
<i>For Class 54 Rating, Add</i>	435.28	
<i>For Class 55 Rating, Add</i>	967.48	
40 05 19 00-0937 EA 24" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,147.69	772.50
<i>For Class 52 Rating, Deduct</i>	-657.50	
<i>For Class 54 Rating, Add</i>	448.29	
<i>For Class 55 Rating, Add</i>	996.41	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0938	EA		24" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,324.90	774.94
			<i>For Class 52 Rating, Deduct</i>	-676.58	
			<i>For Class 54 Rating, Add</i>	461.31	
			<i>For Class 55 Rating, Add</i>	1,025.33	
40 05 19 00-0939	EA		24" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,502.09	777.38
			<i>For Class 52 Rating, Deduct</i>	-695.67	
			<i>For Class 54 Rating, Add</i>	474.32	
			<i>For Class 55 Rating, Add</i>	1,054.25	
40 05 19 00-0940	EA		24" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,679.28	779.82
			<i>For Class 52 Rating, Deduct</i>	-714.75	
			<i>For Class 54 Rating, Add</i>	487.33	
			<i>For Class 55 Rating, Add</i>	1,083.17	
40 05 19 00-0941	EA		24" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,919.25	823.68
			<i>For Class 52 Rating, Deduct</i>	-733.84	
			<i>For Class 54 Rating, Add</i>	500.34	
			<i>For Class 55 Rating, Add</i>	1,112.10	
40 05 19 00-0942	EA		24" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,096.45	826.12
			<i>For Class 52 Rating, Deduct</i>	-752.92	
			<i>For Class 54 Rating, Add</i>	513.36	
			<i>For Class 55 Rating, Add</i>	1,141.02	
40 05 19 00-0943	EA		24" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,273.64	828.55
			<i>For Class 52 Rating, Deduct</i>	-772.01	
			<i>For Class 54 Rating, Add</i>	526.37	
			<i>For Class 55 Rating, Add</i>	1,169.94	
40 05 19 00-0944	EA		24" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,450.84	830.98
			<i>For Class 52 Rating, Deduct</i>	-791.09	
			<i>For Class 54 Rating, Add</i>	539.38	
			<i>For Class 55 Rating, Add</i>	1,198.87	
40 05 19 00-0945	EA		24" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,628.03	833.42
			<i>For Class 52 Rating, Deduct</i>	-810.18	
			<i>For Class 54 Rating, Add</i>	552.40	
			<i>For Class 55 Rating, Add</i>	1,227.79	
40 05 19 00-0946	EA		24" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,805.23	835.86
			<i>For Class 52 Rating, Deduct</i>	-829.27	
			<i>For Class 54 Rating, Add</i>	565.41	
			<i>For Class 55 Rating, Add</i>	1,256.71	
40 05 19 00-0947	EA		24" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,982.43	838.29
			<i>For Class 52 Rating, Deduct</i>	-848.35	
			<i>For Class 54 Rating, Add</i>	578.42	
			<i>For Class 55 Rating, Add</i>	1,285.64	
40 05 19 00-0948	EA		24" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,159.62	840.73
			<i>For Class 52 Rating, Deduct</i>	-867.44	
			<i>For Class 54 Rating, Add</i>	591.43	
			<i>For Class 55 Rating, Add</i>	1,314.56	
40 05 19 00-0949	EA		24" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,336.83	843.17
			<i>For Class 52 Rating, Deduct</i>	-886.52	
			<i>For Class 54 Rating, Add</i>	604.45	
			<i>For Class 55 Rating, Add</i>	1,343.48	
40 05 19 00-0950			30" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0554)</small>		
40 05 19 00-0951	EA		30" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,138.99	1,004.01
			<i>For Class 52 Rating, Deduct</i>	-287.95	
			<i>For Class 54 Rating, Add</i>	196.33	
			<i>For Class 55 Rating, Add</i>	436.38	
40 05 19 00-0952	EA		30" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,393.31	1,006.44
			<i>For Class 52 Rating, Deduct</i>	-315.52	
			<i>For Class 54 Rating, Add</i>	215.13	
			<i>For Class 55 Rating, Add</i>	478.16	
40 05 19 00-0953	EA		30" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,647.61	1,008.88
			<i>For Class 52 Rating, Deduct</i>	-343.09	
			<i>For Class 54 Rating, Add</i>	233.93	
			<i>For Class 55 Rating, Add</i>	519.94	
40 05 19 00-0954	EA		30" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,901.92	1,011.31
			<i>For Class 52 Rating, Deduct</i>	-370.66	
			<i>For Class 54 Rating, Add</i>	252.72	
			<i>For Class 55 Rating, Add</i>	561.72	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0955 EA 30" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,156.23	1,013.75
<i>For Class 52 Rating, Deduct</i>	-398.23	
<i>For Class 54 Rating, Add</i>	271.52	
<i>For Class 55 Rating, Add</i>	603.49	
40 05 19 00-0956 EA 30" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,410.53	1,016.19
<i>For Class 52 Rating, Deduct</i>	-425.79	
<i>For Class 54 Rating, Add</i>	290.31	
<i>For Class 55 Rating, Add</i>	645.27	
40 05 19 00-0957 EA 30" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,664.85	1,018.63
<i>For Class 52 Rating, Deduct</i>	-453.36	
<i>For Class 54 Rating, Add</i>	309.11	
<i>For Class 55 Rating, Add</i>	687.05	
40 05 19 00-0958 EA 30" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,919.15	1,021.06
<i>For Class 52 Rating, Deduct</i>	-480.93	
<i>For Class 54 Rating, Add</i>	327.91	
<i>For Class 55 Rating, Add</i>	728.83	
40 05 19 00-0959 EA 30" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,173.46	1,023.50
<i>For Class 52 Rating, Deduct</i>	-508.50	
<i>For Class 54 Rating, Add</i>	346.70	
<i>For Class 55 Rating, Add</i>	770.60	
40 05 19 00-0960 EA 30" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,427.77	1,025.94
<i>For Class 52 Rating, Deduct</i>	-536.07	
<i>For Class 54 Rating, Add</i>	365.50	
<i>For Class 55 Rating, Add</i>	812.38	
40 05 19 00-0961 EA 30" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,682.08	1,028.38
<i>For Class 52 Rating, Deduct</i>	-563.63	
<i>For Class 54 Rating, Add</i>	384.29	
<i>For Class 55 Rating, Add</i>	854.16	
40 05 19 00-0962 EA 30" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,936.39	1,030.81
<i>For Class 52 Rating, Deduct</i>	-591.20	
<i>For Class 54 Rating, Add</i>	403.09	
<i>For Class 55 Rating, Add</i>	895.94	
40 05 19 00-0963 EA 30" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,190.69	1,033.25
<i>For Class 52 Rating, Deduct</i>	-618.77	
<i>For Class 54 Rating, Add</i>	421.89	
<i>For Class 55 Rating, Add</i>	937.71	
40 05 19 00-0964 EA 30" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,445.00	1,035.69
<i>For Class 52 Rating, Deduct</i>	-646.34	
<i>For Class 54 Rating, Add</i>	440.68	
<i>For Class 55 Rating, Add</i>	979.49	
40 05 19 00-0965 EA 30" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,699.31	1,038.13
<i>For Class 52 Rating, Deduct</i>	-673.90	
<i>For Class 54 Rating, Add</i>	459.48	
<i>For Class 55 Rating, Add</i>	1,021.27	
40 05 19 00-0966 EA 30" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,953.62	1,040.56
<i>For Class 52 Rating, Deduct</i>	-701.47	
<i>For Class 54 Rating, Add</i>	478.28	
<i>For Class 55 Rating, Add</i>	1,063.05	
40 05 19 00-0967 EA 30" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,207.93	1,043.00
<i>For Class 52 Rating, Deduct</i>	-729.04	
<i>For Class 54 Rating, Add</i>	497.07	
<i>For Class 55 Rating, Add</i>	1,104.83	
40 05 19 00-0968 EA 30" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,462.24	1,045.44
<i>For Class 52 Rating, Deduct</i>	-756.61	
<i>For Class 54 Rating, Add</i>	515.87	
<i>For Class 55 Rating, Add</i>	1,146.60	
40 05 19 00-0969 EA 30" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,716.54	1,047.88
<i>For Class 52 Rating, Deduct</i>	-784.17	
<i>For Class 54 Rating, Add</i>	534.66	
<i>For Class 55 Rating, Add</i>	1,188.38	
40 05 19 00-0970 EA 30" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,970.85	1,050.30
<i>For Class 52 Rating, Deduct</i>	-811.74	
<i>For Class 54 Rating, Add</i>	553.46	
<i>For Class 55 Rating, Add</i>	1,230.16	
40 05 19 00-0971 EA 30" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	9,225.16	1,052.74
<i>For Class 52 Rating, Deduct</i>	-839.31	
<i>For Class 54 Rating, Add</i>	572.26	
<i>For Class 55 Rating, Add</i>	1,271.94	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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40 05 19 00-0972	EA		30" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,479.47	1,055.18
			<i>For Class 52 Rating, Deduct</i>	-866.88	
			<i>For Class 54 Rating, Add</i>	591.05	
			<i>For Class 55 Rating, Add</i>	1,313.71	
40 05 19 00-0973	EA		30" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,733.78	1,057.62
			<i>For Class 52 Rating, Deduct</i>	-894.45	
			<i>For Class 54 Rating, Add</i>	609.85	
			<i>For Class 55 Rating, Add</i>	1,355.49	
40 05 19 00-0974	EA		30" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,988.08	1,060.05
			<i>For Class 52 Rating, Deduct</i>	-922.01	
			<i>For Class 54 Rating, Add</i>	628.65	
			<i>For Class 55 Rating, Add</i>	1,397.27	
40 05 19 00-0975	EA		30" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,242.40	1,062.49
			<i>For Class 52 Rating, Deduct</i>	-949.58	
			<i>For Class 54 Rating, Add</i>	647.44	
			<i>For Class 55 Rating, Add</i>	1,439.05	
40 05 19 00-0976	EA		30" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,496.70	1,064.93
			<i>For Class 52 Rating, Deduct</i>	-977.15	
			<i>For Class 54 Rating, Add</i>	666.24	
			<i>For Class 55 Rating, Add</i>	1,480.82	
40 05 19 00-0977	EA		30" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,751.01	1,067.37
			<i>For Class 52 Rating, Deduct</i>	-1,004.72	
			<i>For Class 54 Rating, Add</i>	685.03	
			<i>For Class 55 Rating, Add</i>	1,522.60	
40 05 19 00-0978	EA		30" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,005.33	1,069.80
			<i>For Class 52 Rating, Deduct</i>	-1,032.29	
			<i>For Class 54 Rating, Add</i>	703.83	
			<i>For Class 55 Rating, Add</i>	1,564.38	
40 05 19 00-0979	EA		30" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,259.62	1,072.24
			<i>For Class 52 Rating, Deduct</i>	-1,059.85	
			<i>For Class 54 Rating, Add</i>	722.63	
			<i>For Class 55 Rating, Add</i>	1,606.16	
40 05 19 00-0980	EA		30" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,513.94	1,074.68
			<i>For Class 52 Rating, Deduct</i>	-1,087.42	
			<i>For Class 54 Rating, Add</i>	741.42	
			<i>For Class 55 Rating, Add</i>	1,647.94	
40 05 19 00-0981	EA		30" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,768.24	1,077.12
			<i>For Class 52 Rating, Deduct</i>	-1,114.99	
			<i>For Class 54 Rating, Add</i>	760.22	
			<i>For Class 55 Rating, Add</i>	1,689.71	
40 05 19 00-0982	EA		30" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,022.56	1,079.55
			<i>For Class 52 Rating, Deduct</i>	-1,142.56	
			<i>For Class 54 Rating, Add</i>	779.02	
			<i>For Class 55 Rating, Add</i>	1,731.49	
40 05 19 00-0983	EA		30" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,276.87	1,081.99
			<i>For Class 52 Rating, Deduct</i>	-1,170.12	
			<i>For Class 54 Rating, Add</i>	797.81	
			<i>For Class 55 Rating, Add</i>	1,773.27	
40 05 19 00-0984	EA		30" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,531.16	1,084.43
			<i>For Class 52 Rating, Deduct</i>	-1,197.69	
			<i>For Class 54 Rating, Add</i>	816.61	
			<i>For Class 55 Rating, Add</i>	1,815.05	
40 05 19 00-0985	EA		30" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,785.48	1,086.87
			<i>For Class 52 Rating, Deduct</i>	-1,225.26	
			<i>For Class 54 Rating, Add</i>	835.40	
			<i>For Class 55 Rating, Add</i>	1,856.82	
40 05 19 00-0986	EA		30" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,039.78	1,089.30
			<i>For Class 52 Rating, Deduct</i>	-1,252.83	
			<i>For Class 54 Rating, Add</i>	854.20	
			<i>For Class 55 Rating, Add</i>	1,898.60	
40 05 19 00-0987	EA		30" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,294.10	1,091.74
			<i>For Class 52 Rating, Deduct</i>	-1,280.39	
			<i>For Class 54 Rating, Add</i>	873.00	
			<i>For Class 55 Rating, Add</i>	1,940.38	
40 05 19 00-0988	EA		30" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,548.41	1,094.18
			<i>For Class 52 Rating, Deduct</i>	-1,307.96	
			<i>For Class 54 Rating, Add</i>	891.79	
			<i>For Class 55 Rating, Add</i>	1,982.16	



	MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-0989				36" Flanged End x Grooved End (FxG), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0554)</small>		
40 05 19 00-0990	EA			36" Flanged x Grooved (FxG), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,617.63	1,272.07
				For Class 52 Rating, Deduct	-405.93	
				For Class 54 Rating, Add	276.77	
				For Class 55 Rating, Add	615.16	
40 05 19 00-0991	EA			36" Flanged x Grooved (FxG), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,962.23	1,274.50
				For Class 52 Rating, Deduct	-443.43	
				For Class 54 Rating, Add	302.34	
				For Class 55 Rating, Add	671.99	
40 05 19 00-0992	EA			36" Flanged x Grooved (FxG), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,306.84	1,276.94
				For Class 52 Rating, Deduct	-480.93	
				For Class 54 Rating, Add	327.91	
				For Class 55 Rating, Add	728.83	
40 05 19 00-0993	EA			36" Flanged x Grooved (FxG), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,651.45	1,279.37
				For Class 52 Rating, Deduct	-518.43	
				For Class 54 Rating, Add	353.48	
				For Class 55 Rating, Add	785.66	
40 05 19 00-0994	EA			36" Flanged x Grooved (FxG), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,996.06	1,281.81
				For Class 52 Rating, Deduct	-555.93	
				For Class 54 Rating, Add	379.04	
				For Class 55 Rating, Add	842.49	
40 05 19 00-0995	EA			36" Flanged x Grooved (FxG), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,340.68	1,284.25
				For Class 52 Rating, Deduct	-593.43	
				For Class 54 Rating, Add	404.61	
				For Class 55 Rating, Add	899.32	
40 05 19 00-0996	EA			36" Flanged x Grooved (FxG), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,685.28	1,286.69
				For Class 52 Rating, Deduct	-630.93	
				For Class 54 Rating, Add	430.18	
				For Class 55 Rating, Add	956.15	
40 05 19 00-0997	EA			36" Flanged x Grooved (FxG), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,029.90	1,289.12
				For Class 52 Rating, Deduct	-668.43	
				For Class 54 Rating, Add	455.75	
				For Class 55 Rating, Add	1,012.98	
40 05 19 00-0998	EA			36" Flanged x Grooved (FxG), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,374.51	1,291.56
				For Class 52 Rating, Deduct	-705.94	
				For Class 54 Rating, Add	481.32	
				For Class 55 Rating, Add	1,069.81	
40 05 19 00-0999	EA			36" Flanged x Grooved (FxG), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,719.13	1,294.00
				For Class 52 Rating, Deduct	-743.44	
				For Class 54 Rating, Add	506.89	
				For Class 55 Rating, Add	1,126.65	
40 05 19 00-1000	EA			36" Flanged x Grooved (FxG), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	9,063.74	1,296.44
				For Class 52 Rating, Deduct	-780.94	
				For Class 54 Rating, Add	532.46	
				For Class 55 Rating, Add	1,183.48	
40 05 19 00-1001	EA			36" Flanged x Grooved (FxG), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	9,408.35	1,298.87
				For Class 52 Rating, Deduct	-818.44	
				For Class 54 Rating, Add	558.03	
				For Class 55 Rating, Add	1,240.31	
40 05 19 00-1002	EA			36" Flanged x Grooved (FxG), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	9,752.95	1,301.31
				For Class 52 Rating, Deduct	-855.94	
				For Class 54 Rating, Add	583.60	
				For Class 55 Rating, Add	1,297.14	
40 05 19 00-1003	EA			36" Flanged x Grooved (FxG), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	10,097.56	1,303.75
				For Class 52 Rating, Deduct	-893.44	
				For Class 54 Rating, Add	609.16	
				For Class 55 Rating, Add	1,353.97	
40 05 19 00-1004	EA			36" Flanged x Grooved (FxG), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	10,442.18	1,306.19
				For Class 52 Rating, Deduct	-930.94	
				For Class 54 Rating, Add	634.73	
				For Class 55 Rating, Add	1,410.80	
40 05 19 00-1005	EA			36" Flanged x Grooved (FxG), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	10,786.79	1,308.62
				For Class 52 Rating, Deduct	-968.44	
				For Class 54 Rating, Add	660.30	
				For Class 55 Rating, Add	1,467.63	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1006	EA		36" Flanged x Grooved (FxG), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,131.40	1,311.06
			<i>For Class 52 Rating, Deduct</i>	-1,005.94	
			<i>For Class 54 Rating, Add</i>	685.87	
			<i>For Class 55 Rating, Add</i>	1,524.46	
40 05 19 00-1007	EA		36" Flanged x Grooved (FxG), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,476.01	1,313.50
			<i>For Class 52 Rating, Deduct</i>	-1,043.45	
			<i>For Class 54 Rating, Add</i>	711.44	
			<i>For Class 55 Rating, Add</i>	1,581.29	
40 05 19 00-1008	EA		36" Flanged x Grooved (FxG), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,820.63	1,315.94
			<i>For Class 52 Rating, Deduct</i>	-1,080.95	
			<i>For Class 54 Rating, Add</i>	737.01	
			<i>For Class 55 Rating, Add</i>	1,638.13	
40 05 19 00-1009	EA		36" Flanged x Grooved (FxG), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,165.24	1,318.36
			<i>For Class 52 Rating, Deduct</i>	-1,118.45	
			<i>For Class 54 Rating, Add</i>	762.58	
			<i>For Class 55 Rating, Add</i>	1,694.96	
40 05 19 00-1010	EA		36" Flanged x Grooved (FxG), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,509.85	1,320.80
			<i>For Class 52 Rating, Deduct</i>	-1,155.95	
			<i>For Class 54 Rating, Add</i>	788.15	
			<i>For Class 55 Rating, Add</i>	1,751.79	
40 05 19 00-1011	EA		36" Flanged x Grooved (FxG), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,854.46	1,323.24
			<i>For Class 52 Rating, Deduct</i>	-1,193.45	
			<i>For Class 54 Rating, Add</i>	813.72	
			<i>For Class 55 Rating, Add</i>	1,808.62	
40 05 19 00-1012	EA		36" Flanged x Grooved (FxG), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,199.06	1,325.68
			<i>For Class 52 Rating, Deduct</i>	-1,230.95	
			<i>For Class 54 Rating, Add</i>	839.28	
			<i>For Class 55 Rating, Add</i>	1,865.45	
40 05 19 00-1013	EA		36" Flanged x Grooved (FxG), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,543.68	1,328.11
			<i>For Class 52 Rating, Deduct</i>	-1,268.45	
			<i>For Class 54 Rating, Add</i>	864.85	
			<i>For Class 55 Rating, Add</i>	1,922.28	
40 05 19 00-1014	EA		36" Flanged x Grooved (FxG), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,888.29	1,330.55
			<i>For Class 52 Rating, Deduct</i>	-1,305.95	
			<i>For Class 54 Rating, Add</i>	890.42	
			<i>For Class 55 Rating, Add</i>	1,979.11	
40 05 19 00-1015	EA		36" Flanged x Grooved (FxG), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,232.91	1,332.99
			<i>For Class 52 Rating, Deduct</i>	-1,343.45	
			<i>For Class 54 Rating, Add</i>	915.99	
			<i>For Class 55 Rating, Add</i>	2,035.94	
40 05 19 00-1016	EA		36" Flanged x Grooved (FxG), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,577.51	1,335.43
			<i>For Class 52 Rating, Deduct</i>	-1,380.96	
			<i>For Class 54 Rating, Add</i>	941.56	
			<i>For Class 55 Rating, Add</i>	2,092.78	
40 05 19 00-1017	EA		36" Flanged x Grooved (FxG), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,922.12	1,337.86
			<i>For Class 52 Rating, Deduct</i>	-1,418.46	
			<i>For Class 54 Rating, Add</i>	967.13	
			<i>For Class 55 Rating, Add</i>	2,149.61	
40 05 19 00-1018	EA		36" Flanged x Grooved (FxG), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,266.74	1,340.30
			<i>For Class 52 Rating, Deduct</i>	-1,455.96	
			<i>For Class 54 Rating, Add</i>	992.70	
			<i>For Class 55 Rating, Add</i>	2,206.44	
40 05 19 00-1019	EA		36" Flanged x Grooved (FxG), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,611.35	1,342.74
			<i>For Class 52 Rating, Deduct</i>	-1,493.46	
			<i>For Class 54 Rating, Add</i>	1,018.27	
			<i>For Class 55 Rating, Add</i>	2,263.27	
40 05 19 00-1020	EA		36" Flanged x Grooved (FxG), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,955.97	1,345.18
			<i>For Class 52 Rating, Deduct</i>	-1,530.96	
			<i>For Class 54 Rating, Add</i>	1,043.84	
			<i>For Class 55 Rating, Add</i>	2,320.10	
40 05 19 00-1021	EA		36" Flanged x Grooved (FxG), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,300.57	1,347.61
			<i>For Class 52 Rating, Deduct</i>	-1,568.46	
			<i>For Class 54 Rating, Add</i>	1,069.41	
			<i>For Class 55 Rating, Add</i>	2,376.93	
40 05 19 00-1022	EA		36" Flanged x Grooved (FxG), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,645.19	1,350.05
			<i>For Class 52 Rating, Deduct</i>	-1,605.96	
			<i>For Class 54 Rating, Add</i>	1,094.97	
			<i>For Class 55 Rating, Add</i>	2,433.76	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1023 EA 36" Flanged x Grooved (FxG), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	16,989.79	1,352.49
For Class 52 Rating, Deduct	-1,643.46	
For Class 54 Rating, Add	1,120.54	
For Class 55 Rating, Add	2,490.59	
40 05 19 00-1024 EA 36" Flanged x Grooved (FxG), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	17,334.40	1,354.93
For Class 52 Rating, Deduct	-1,680.96	
For Class 54 Rating, Add	1,146.11	
For Class 55 Rating, Add	2,547.42	
40 05 19 00-1025 EA 36" Flanged x Grooved (FxG), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	17,679.02	1,357.36
For Class 52 Rating, Deduct	-1,718.47	
For Class 54 Rating, Add	1,171.68	
For Class 55 Rating, Add	2,604.26	
40 05 19 00-1026 EA 36" Flanged x Grooved (FxG), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	18,023.62	1,359.80
For Class 52 Rating, Deduct	-1,755.97	
For Class 54 Rating, Add	1,197.25	
For Class 55 Rating, Add	2,661.09	
40 05 19 00-1027 EA 36" Flanged x Grooved (FxG), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	18,368.24	1,362.24
For Class 52 Rating, Deduct	-1,793.47	
For Class 54 Rating, Add	1,222.82	
For Class 55 Rating, Add	2,717.92	
40 05 19 00-1028 Flanged End x Plain End (FxPE), Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-0001)</small>		
40 05 19 00-1029 4" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-1028)</small>		
40 05 19 00-1030 EA 4" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	327.69	119.17
For Class 52 Rating, Deduct	-16.18	
For Class 54 Rating, Add	11.03	
For Class 55 Rating, Add	24.52	
40 05 19 00-1031 EA 4" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	357.23	121.26
For Class 52 Rating, Deduct	-19.09	
For Class 54 Rating, Add	13.01	
For Class 55 Rating, Add	28.92	
40 05 19 00-1032 EA 4" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	386.77	123.35
For Class 52 Rating, Deduct	-21.99	
For Class 54 Rating, Add	14.99	
For Class 55 Rating, Add	33.32	
40 05 19 00-1033 EA 4" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	416.30	125.43
For Class 52 Rating, Deduct	-24.89	
For Class 54 Rating, Add	16.97	
For Class 55 Rating, Add	37.72	
40 05 19 00-1034 EA 4" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	445.85	127.52
For Class 52 Rating, Deduct	-27.79	
For Class 54 Rating, Add	18.95	
For Class 55 Rating, Add	42.12	
40 05 19 00-1035 EA 4" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	475.38	129.60
For Class 52 Rating, Deduct	-30.69	
For Class 54 Rating, Add	20.93	
For Class 55 Rating, Add	46.51	
40 05 19 00-1036 EA 4" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	504.93	131.69
For Class 52 Rating, Deduct	-33.60	
For Class 54 Rating, Add	22.91	
For Class 55 Rating, Add	50.91	
40 05 19 00-1037 EA 4" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	534.46	133.77
For Class 52 Rating, Deduct	-36.50	
For Class 54 Rating, Add	24.88	
For Class 55 Rating, Add	55.31	
40 05 19 00-1038 EA 4" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	564.00	135.85
For Class 52 Rating, Deduct	-39.40	
For Class 54 Rating, Add	26.86	
For Class 55 Rating, Add	59.71	
40 05 19 00-1039 EA 4" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	593.53	137.94
For Class 52 Rating, Deduct	-42.30	
For Class 54 Rating, Add	28.84	
For Class 55 Rating, Add	64.10	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1040	EA		4" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	623.07	140.01
			For Class 52 Rating, Deduct	-45.20	
			For Class 54 Rating, Add	30.82	
			For Class 55 Rating, Add	68.50	
40 05 19 00-1041	EA		4" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	652.61	142.10
			For Class 52 Rating, Deduct	-48.10	
			For Class 54 Rating, Add	32.80	
			For Class 55 Rating, Add	72.90	
40 05 19 00-1042	EA		4" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	682.14	144.18
			For Class 52 Rating, Deduct	-51.01	
			For Class 54 Rating, Add	34.78	
			For Class 55 Rating, Add	77.30	
40 05 19 00-1043	EA		4" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	711.68	146.27
			For Class 52 Rating, Deduct	-53.91	
			For Class 54 Rating, Add	36.76	
			For Class 55 Rating, Add	81.69	
40 05 19 00-1044	EA		4" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	741.21	148.35
			For Class 52 Rating, Deduct	-56.81	
			For Class 54 Rating, Add	38.73	
			For Class 55 Rating, Add	86.09	
40 05 19 00-1045	EA		4" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	770.76	150.43
			For Class 52 Rating, Deduct	-59.71	
			For Class 54 Rating, Add	40.71	
			For Class 55 Rating, Add	90.49	
40 05 19 00-1046	EA		4" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	800.29	152.52
			For Class 52 Rating, Deduct	-62.61	
			For Class 54 Rating, Add	42.69	
			For Class 55 Rating, Add	94.89	
40 05 19 00-1047	EA		4" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	829.83	154.59
			For Class 52 Rating, Deduct	-65.51	
			For Class 54 Rating, Add	44.67	
			For Class 55 Rating, Add	99.28	
40 05 19 00-1048	EA		4" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	859.36	156.68
			For Class 52 Rating, Deduct	-68.42	
			For Class 54 Rating, Add	46.65	
			For Class 55 Rating, Add	103.68	
40 05 19 00-1049	EA		4" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	888.91	158.77
			For Class 52 Rating, Deduct	-71.32	
			For Class 54 Rating, Add	48.63	
			For Class 55 Rating, Add	108.08	
40 05 19 00-1050	EA		4" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	918.45	160.85
			For Class 52 Rating, Deduct	-74.22	
			For Class 54 Rating, Add	50.61	
			For Class 55 Rating, Add	112.48	
40 05 19 00-1051	EA		4" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	947.99	162.93
			For Class 52 Rating, Deduct	-77.12	
			For Class 54 Rating, Add	52.58	
			For Class 55 Rating, Add	116.88	
40 05 19 00-1052	EA		4" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	977.52	165.01
			For Class 52 Rating, Deduct	-80.03	
			For Class 54 Rating, Add	54.56	
			For Class 55 Rating, Add	121.27	
40 05 19 00-1053	EA		4" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,007.06	167.10
			For Class 52 Rating, Deduct	-82.93	
			For Class 54 Rating, Add	56.54	
			For Class 55 Rating, Add	125.67	
40 05 19 00-1054	EA		4" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,036.60	169.18
			For Class 52 Rating, Deduct	-85.83	
			For Class 54 Rating, Add	58.52	
			For Class 55 Rating, Add	130.07	
40 05 19 00-1055	EA		4" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,066.14	171.26
			For Class 52 Rating, Deduct	-88.73	
			For Class 54 Rating, Add	60.50	
			For Class 55 Rating, Add	134.47	
40 05 19 00-1056	EA		4" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,095.67	173.36
			For Class 52 Rating, Deduct	-91.63	
			For Class 54 Rating, Add	62.48	
			For Class 55 Rating, Add	138.86	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1057 EA 4" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,125.21	175.44
<i>For Class 52 Rating, Deduct</i>	-94.53	
<i>For Class 54 Rating, Add</i>	64.46	
<i>For Class 55 Rating, Add</i>	143.26	
40 05 19 00-1058 EA 4" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,154.74	177.52
<i>For Class 52 Rating, Deduct</i>	-97.44	
<i>For Class 54 Rating, Add</i>	66.43	
<i>For Class 55 Rating, Add</i>	147.66	
40 05 19 00-1059 EA 4" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,184.29	179.61
<i>For Class 52 Rating, Deduct</i>	-100.34	
<i>For Class 54 Rating, Add</i>	68.41	
<i>For Class 55 Rating, Add</i>	152.06	
40 05 19 00-1060 EA 4" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,213.82	181.69
<i>For Class 52 Rating, Deduct</i>	-103.24	
<i>For Class 54 Rating, Add</i>	70.39	
<i>For Class 55 Rating, Add</i>	156.45	
40 05 19 00-1061 EA 4" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,243.36	183.78
<i>For Class 52 Rating, Deduct</i>	-106.14	
<i>For Class 54 Rating, Add</i>	72.37	
<i>For Class 55 Rating, Add</i>	160.85	
40 05 19 00-1062 EA 4" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,272.89	185.85
<i>For Class 52 Rating, Deduct</i>	-109.04	
<i>For Class 54 Rating, Add</i>	74.35	
<i>For Class 55 Rating, Add</i>	165.25	
40 05 19 00-1063 EA 4" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,302.42	187.94
<i>For Class 52 Rating, Deduct</i>	-111.94	
<i>For Class 54 Rating, Add</i>	76.33	
<i>For Class 55 Rating, Add</i>	169.65	
40 05 19 00-1064 EA 4" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,331.97	190.02
<i>For Class 52 Rating, Deduct</i>	-114.85	
<i>For Class 54 Rating, Add</i>	78.30	
<i>For Class 55 Rating, Add</i>	174.04	
40 05 19 00-1065 EA 4" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,361.51	192.10
<i>For Class 52 Rating, Deduct</i>	-117.75	
<i>For Class 54 Rating, Add</i>	80.28	
<i>For Class 55 Rating, Add</i>	178.44	
40 05 19 00-1066 EA 4" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,391.05	194.19
<i>For Class 52 Rating, Deduct</i>	-120.65	
<i>For Class 54 Rating, Add</i>	82.26	
<i>For Class 55 Rating, Add</i>	182.84	
40 05 19 00-1067 EA 4" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,420.58	196.27
<i>For Class 52 Rating, Deduct</i>	-123.55	
<i>For Class 54 Rating, Add</i>	84.24	
<i>For Class 55 Rating, Add</i>	187.24	
40 05 19 00-1068 EA 4" Flanged x Plain End (FxPE), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,450.13	198.36
<i>For Class 52 Rating, Deduct</i>	-126.45	
<i>For Class 54 Rating, Add</i>	86.22	
<i>For Class 55 Rating, Add</i>	191.64	
40 05 19 00-1069 6" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-1028)</small>		
40 05 19 00-1070 EA 6" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	410.95	150.02
<i>For Class 52 Rating, Deduct</i>	-20.20	
<i>For Class 54 Rating, Add</i>	13.77	
<i>For Class 55 Rating, Add</i>	30.61	
40 05 19 00-1071 EA 6" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	446.58	152.10
<i>For Class 52 Rating, Deduct</i>	-23.77	
<i>For Class 54 Rating, Add</i>	16.21	
<i>For Class 55 Rating, Add</i>	36.03	
40 05 19 00-1072 EA 6" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	482.20	154.18
<i>For Class 52 Rating, Deduct</i>	-27.34	
<i>For Class 54 Rating, Add</i>	18.64	
<i>For Class 55 Rating, Add</i>	41.44	
40 05 19 00-1073 EA 6" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	517.83	156.27
<i>For Class 52 Rating, Deduct</i>	-30.92	
<i>For Class 54 Rating, Add</i>	21.08	
<i>For Class 55 Rating, Add</i>	46.85	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1074	EA		6" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	553.44	158.35
			<i>For Class 52 Rating, Deduct</i>	-34.49	
			<i>For Class 54 Rating, Add</i>	23.51	
			<i>For Class 55 Rating, Add</i>	52.26	
40 05 19 00-1075	EA		6" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	589.08	160.43
			<i>For Class 52 Rating, Deduct</i>	-38.06	
			<i>For Class 54 Rating, Add</i>	25.95	
			<i>For Class 55 Rating, Add</i>	57.68	
40 05 19 00-1076	EA		6" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	624.70	162.51
			<i>For Class 52 Rating, Deduct</i>	-41.63	
			<i>For Class 54 Rating, Add</i>	28.38	
			<i>For Class 55 Rating, Add</i>	63.09	
40 05 19 00-1077	EA		6" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	660.33	164.60
			<i>For Class 52 Rating, Deduct</i>	-45.20	
			<i>For Class 54 Rating, Add</i>	30.82	
			<i>For Class 55 Rating, Add</i>	68.50	
40 05 19 00-1078	EA		6" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	695.95	166.68
			<i>For Class 52 Rating, Deduct</i>	-48.77	
			<i>For Class 54 Rating, Add</i>	33.26	
			<i>For Class 55 Rating, Add</i>	73.91	
40 05 19 00-1079	EA		6" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	731.57	168.76
			<i>For Class 52 Rating, Deduct</i>	-52.35	
			<i>For Class 54 Rating, Add</i>	35.69	
			<i>For Class 55 Rating, Add</i>	79.33	
40 05 19 00-1080	EA		6" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	767.20	170.85
			<i>For Class 52 Rating, Deduct</i>	-55.92	
			<i>For Class 54 Rating, Add</i>	38.12	
			<i>For Class 55 Rating, Add</i>	84.74	
40 05 19 00-1081	EA		6" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	802.82	172.94
			<i>For Class 52 Rating, Deduct</i>	-59.49	
			<i>For Class 54 Rating, Add</i>	40.56	
			<i>For Class 55 Rating, Add</i>	90.15	
40 05 19 00-1082	EA		6" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	838.45	175.02
			<i>For Class 52 Rating, Deduct</i>	-63.06	
			<i>For Class 54 Rating, Add</i>	43.00	
			<i>For Class 55 Rating, Add</i>	95.56	
40 05 19 00-1083	EA		6" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	874.07	177.10
			<i>For Class 52 Rating, Deduct</i>	-66.63	
			<i>For Class 54 Rating, Add</i>	45.43	
			<i>For Class 55 Rating, Add</i>	100.98	
40 05 19 00-1084	EA		6" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	909.71	179.19
			<i>For Class 52 Rating, Deduct</i>	-70.20	
			<i>For Class 54 Rating, Add</i>	47.87	
			<i>For Class 55 Rating, Add</i>	106.39	
40 05 19 00-1085	EA		6" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	945.33	181.28
			<i>For Class 52 Rating, Deduct</i>	-73.77	
			<i>For Class 54 Rating, Add</i>	50.30	
			<i>For Class 55 Rating, Add</i>	111.80	
40 05 19 00-1086	EA		6" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	980.96	183.35
			<i>For Class 52 Rating, Deduct</i>	-77.35	
			<i>For Class 54 Rating, Add</i>	52.74	
			<i>For Class 55 Rating, Add</i>	117.22	
40 05 19 00-1087	EA		6" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,016.57	185.44
			<i>For Class 52 Rating, Deduct</i>	-80.92	
			<i>For Class 54 Rating, Add</i>	55.17	
			<i>For Class 55 Rating, Add</i>	122.63	
40 05 19 00-1088	EA		6" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,052.20	187.52
			<i>For Class 52 Rating, Deduct</i>	-84.49	
			<i>For Class 54 Rating, Add</i>	57.61	
			<i>For Class 55 Rating, Add</i>	128.04	
40 05 19 00-1089	EA		6" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,087.83	189.61
			<i>For Class 52 Rating, Deduct</i>	-88.06	
			<i>For Class 54 Rating, Add</i>	60.04	
			<i>For Class 55 Rating, Add</i>	133.45	
40 05 19 00-1090	EA		6" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,123.46	191.69
			<i>For Class 52 Rating, Deduct</i>	-91.63	
			<i>For Class 54 Rating, Add</i>	62.48	
			<i>For Class 55 Rating, Add</i>	138.86	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1091 EA 6" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,159.08	193.77
<i>For Class 52 Rating, Deduct</i>	-95.20	
<i>For Class 54 Rating, Add</i>	64.91	
<i>For Class 55 Rating, Add</i>	144.28	
40 05 19 00-1092 EA 6" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,194.71	195.86
<i>For Class 52 Rating, Deduct</i>	-98.78	
<i>For Class 54 Rating, Add</i>	67.35	
<i>For Class 55 Rating, Add</i>	149.69	
40 05 19 00-1093 EA 6" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,230.33	197.93
<i>For Class 52 Rating, Deduct</i>	-102.35	
<i>For Class 54 Rating, Add</i>	69.78	
<i>For Class 55 Rating, Add</i>	155.10	
40 05 19 00-1094 EA 6" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,265.96	200.02
<i>For Class 52 Rating, Deduct</i>	-105.92	
<i>For Class 54 Rating, Add</i>	72.22	
<i>For Class 55 Rating, Add</i>	160.51	
40 05 19 00-1095 EA 6" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,301.58	202.11
<i>For Class 52 Rating, Deduct</i>	-109.49	
<i>For Class 54 Rating, Add</i>	74.65	
<i>For Class 55 Rating, Add</i>	165.93	
40 05 19 00-1096 EA 6" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,337.21	204.19
<i>For Class 52 Rating, Deduct</i>	-113.06	
<i>For Class 54 Rating, Add</i>	77.09	
<i>For Class 55 Rating, Add</i>	171.34	
40 05 19 00-1097 EA 6" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,372.83	206.27
<i>For Class 52 Rating, Deduct</i>	-116.63	
<i>For Class 54 Rating, Add</i>	79.52	
<i>For Class 55 Rating, Add</i>	176.75	
40 05 19 00-1098 EA 6" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,408.46	208.35
<i>For Class 52 Rating, Deduct</i>	-120.20	
<i>For Class 54 Rating, Add</i>	81.96	
<i>For Class 55 Rating, Add</i>	182.16	
40 05 19 00-1099 EA 6" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,444.09	210.44
<i>For Class 52 Rating, Deduct</i>	-123.78	
<i>For Class 54 Rating, Add</i>	84.39	
<i>For Class 55 Rating, Add</i>	187.58	
40 05 19 00-1100 EA 6" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,479.70	212.52
<i>For Class 52 Rating, Deduct</i>	-127.35	
<i>For Class 54 Rating, Add</i>	86.83	
<i>For Class 55 Rating, Add</i>	192.99	
40 05 19 00-1101 EA 6" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,515.33	214.60
<i>For Class 52 Rating, Deduct</i>	-130.92	
<i>For Class 54 Rating, Add</i>	89.26	
<i>For Class 55 Rating, Add</i>	198.40	
40 05 19 00-1102 EA 6" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,550.95	216.69
<i>For Class 52 Rating, Deduct</i>	-134.49	
<i>For Class 54 Rating, Add</i>	91.70	
<i>For Class 55 Rating, Add</i>	203.81	
40 05 19 00-1103 EA 6" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,586.59	218.77
<i>For Class 52 Rating, Deduct</i>	-138.06	
<i>For Class 54 Rating, Add</i>	94.13	
<i>For Class 55 Rating, Add</i>	209.23	
40 05 19 00-1104 EA 6" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,622.21	220.85
<i>For Class 52 Rating, Deduct</i>	-141.63	
<i>For Class 54 Rating, Add</i>	96.57	
<i>For Class 55 Rating, Add</i>	214.64	
40 05 19 00-1105 EA 6" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,657.84	222.94
<i>For Class 52 Rating, Deduct</i>	-145.21	
<i>For Class 54 Rating, Add</i>	99.00	
<i>For Class 55 Rating, Add</i>	220.05	
40 05 19 00-1106 EA 6" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,693.46	225.03
<i>For Class 52 Rating, Deduct</i>	-148.78	
<i>For Class 54 Rating, Add</i>	101.44	
<i>For Class 55 Rating, Add</i>	225.47	
40 05 19 00-1107 EA 6" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,729.09	227.11
<i>For Class 52 Rating, Deduct</i>	-152.35	
<i>For Class 54 Rating, Add</i>	103.87	
<i>For Class 55 Rating, Add</i>	230.88	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1108	EA		6" Flanged x Plain End (FxPE), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,764.71	229.19
			<i>For Class 52 Rating, Deduct</i>	-155.92	
			<i>For Class 54 Rating, Add</i>	106.31	
			<i>For Class 55 Rating, Add</i>	236.29	
40 05 19 00-1109			8" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-1028)</small>		
40 05 19 00-1110	EA		8" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	557.29	191.69
			<i>For Class 52 Rating, Deduct</i>	-29.35	
			<i>For Class 54 Rating, Add</i>	20.01	
			<i>For Class 55 Rating, Add</i>	44.48	
40 05 19 00-1111	EA		8" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	605.08	193.77
			<i>For Class 52 Rating, Deduct</i>	-34.26	
			<i>For Class 54 Rating, Add</i>	23.36	
			<i>For Class 55 Rating, Add</i>	51.93	
40 05 19 00-1112	EA		8" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	652.89	195.86
			<i>For Class 52 Rating, Deduct</i>	-39.18	
			<i>For Class 54 Rating, Add</i>	26.71	
			<i>For Class 55 Rating, Add</i>	59.37	
40 05 19 00-1113	EA		8" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	700.69	197.93
			<i>For Class 52 Rating, Deduct</i>	-44.09	
			<i>For Class 54 Rating, Add</i>	30.06	
			<i>For Class 55 Rating, Add</i>	66.81	
40 05 19 00-1114	EA		8" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	748.50	200.02
			<i>For Class 52 Rating, Deduct</i>	-49.00	
			<i>For Class 54 Rating, Add</i>	33.41	
			<i>For Class 55 Rating, Add</i>	74.25	
40 05 19 00-1115	EA		8" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	796.29	202.11
			<i>For Class 52 Rating, Deduct</i>	-53.91	
			<i>For Class 54 Rating, Add</i>	36.76	
			<i>For Class 55 Rating, Add</i>	81.69	
40 05 19 00-1116	EA		8" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	844.10	204.19
			<i>For Class 52 Rating, Deduct</i>	-58.82	
			<i>For Class 54 Rating, Add</i>	40.10	
			<i>For Class 55 Rating, Add</i>	89.14	
40 05 19 00-1117	EA		8" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	891.89	206.27
			<i>For Class 52 Rating, Deduct</i>	-63.73	
			<i>For Class 54 Rating, Add</i>	43.45	
			<i>For Class 55 Rating, Add</i>	96.58	
40 05 19 00-1118	EA		8" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	939.69	208.35
			<i>For Class 52 Rating, Deduct</i>	-68.64	
			<i>For Class 54 Rating, Add</i>	46.80	
			<i>For Class 55 Rating, Add</i>	104.02	
40 05 19 00-1119	EA		8" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	987.50	210.44
			<i>For Class 52 Rating, Deduct</i>	-73.55	
			<i>For Class 54 Rating, Add</i>	50.15	
			<i>For Class 55 Rating, Add</i>	111.46	
40 05 19 00-1120	EA		8" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,035.29	212.52
			<i>For Class 52 Rating, Deduct</i>	-78.46	
			<i>For Class 54 Rating, Add</i>	53.50	
			<i>For Class 55 Rating, Add</i>	118.91	
40 05 19 00-1121	EA		8" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,083.10	214.60
			<i>For Class 52 Rating, Deduct</i>	-83.37	
			<i>For Class 54 Rating, Add</i>	56.85	
			<i>For Class 55 Rating, Add</i>	126.35	
40 05 19 00-1122	EA		8" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,130.89	216.69
			<i>For Class 52 Rating, Deduct</i>	-88.28	
			<i>For Class 54 Rating, Add</i>	60.19	
			<i>For Class 55 Rating, Add</i>	133.79	
40 05 19 00-1123	EA		8" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,178.70	218.77
			<i>For Class 52 Rating, Deduct</i>	-93.19	
			<i>For Class 54 Rating, Add</i>	63.54	
			<i>For Class 55 Rating, Add</i>	141.23	
40 05 19 00-1124	EA		8" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,226.50	220.85
			<i>For Class 52 Rating, Deduct</i>	-98.11	
			<i>For Class 54 Rating, Add</i>	66.89	
			<i>For Class 55 Rating, Add</i>	148.67	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1125 EA 8" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,274.30	222.94
<i>For Class 52 Rating, Deduct</i>	-103.02	
<i>For Class 54 Rating, Add</i>	70.24	
<i>For Class 55 Rating, Add</i>	156.12	
40 05 19 00-1126 EA 8" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,322.10	225.03
<i>For Class 52 Rating, Deduct</i>	-107.93	
<i>For Class 54 Rating, Add</i>	73.59	
<i>For Class 55 Rating, Add</i>	163.56	
40 05 19 00-1127 EA 8" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,369.91	227.11
<i>For Class 52 Rating, Deduct</i>	-112.84	
<i>For Class 54 Rating, Add</i>	76.94	
<i>For Class 55 Rating, Add</i>	171.00	
40 05 19 00-1128 EA 8" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,417.71	229.19
<i>For Class 52 Rating, Deduct</i>	-117.75	
<i>For Class 54 Rating, Add</i>	80.28	
<i>For Class 55 Rating, Add</i>	178.44	
40 05 19 00-1129 EA 8" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,465.51	231.28
<i>For Class 52 Rating, Deduct</i>	-122.66	
<i>For Class 54 Rating, Add</i>	83.63	
<i>For Class 55 Rating, Add</i>	185.89	
40 05 19 00-1130 EA 8" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,513.30	233.36
<i>For Class 52 Rating, Deduct</i>	-127.57	
<i>For Class 54 Rating, Add</i>	86.98	
<i>For Class 55 Rating, Add</i>	193.33	
40 05 19 00-1131 EA 8" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,561.11	235.44
<i>For Class 52 Rating, Deduct</i>	-132.48	
<i>For Class 54 Rating, Add</i>	90.33	
<i>For Class 55 Rating, Add</i>	200.77	
40 05 19 00-1132 EA 8" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,608.91	237.53
<i>For Class 52 Rating, Deduct</i>	-137.39	
<i>For Class 54 Rating, Add</i>	93.68	
<i>For Class 55 Rating, Add</i>	208.21	
40 05 19 00-1133 EA 8" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,656.72	239.61
<i>For Class 52 Rating, Deduct</i>	-142.30	
<i>For Class 54 Rating, Add</i>	97.03	
<i>For Class 55 Rating, Add</i>	215.65	
40 05 19 00-1134 EA 8" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,704.51	241.70
<i>For Class 52 Rating, Deduct</i>	-147.21	
<i>For Class 54 Rating, Add</i>	100.37	
<i>For Class 55 Rating, Add</i>	223.10	
40 05 19 00-1135 EA 8" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,752.31	243.77
<i>For Class 52 Rating, Deduct</i>	-152.12	
<i>For Class 54 Rating, Add</i>	103.72	
<i>For Class 55 Rating, Add</i>	230.54	
40 05 19 00-1136 EA 8" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,800.11	245.86
<i>For Class 52 Rating, Deduct</i>	-157.04	
<i>For Class 54 Rating, Add</i>	107.07	
<i>For Class 55 Rating, Add</i>	237.98	
40 05 19 00-1137 EA 8" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,847.91	247.95
<i>For Class 52 Rating, Deduct</i>	-161.95	
<i>For Class 54 Rating, Add</i>	110.42	
<i>For Class 55 Rating, Add</i>	245.42	
40 05 19 00-1138 EA 8" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,895.72	250.02
<i>For Class 52 Rating, Deduct</i>	-166.86	
<i>For Class 54 Rating, Add</i>	113.77	
<i>For Class 55 Rating, Add</i>	252.87	
40 05 19 00-1139 EA 8" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,943.51	252.11
<i>For Class 52 Rating, Deduct</i>	-171.77	
<i>For Class 54 Rating, Add</i>	117.11	
<i>For Class 55 Rating, Add</i>	260.31	
40 05 19 00-1140 EA 8" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,991.32	254.19
<i>For Class 52 Rating, Deduct</i>	-176.68	
<i>For Class 54 Rating, Add</i>	120.46	
<i>For Class 55 Rating, Add</i>	267.75	
40 05 19 00-1141 EA 8" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,039.12	256.28
<i>For Class 52 Rating, Deduct</i>	-181.59	
<i>For Class 54 Rating, Add</i>	123.81	
<i>For Class 55 Rating, Add</i>	275.19	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1142	EA		8" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,086.92	258.36
			For Class 52 Rating, Deduct	-186.50	
			For Class 54 Rating, Add	127.16	
			For Class 55 Rating, Add	282.63	
40 05 19 00-1143	EA		8" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,134.72	260.44
			For Class 52 Rating, Deduct	-191.41	
			For Class 54 Rating, Add	130.51	
			For Class 55 Rating, Add	290.08	
40 05 19 00-1144	EA		8" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,182.52	262.53
			For Class 52 Rating, Deduct	-196.32	
			For Class 54 Rating, Add	133.86	
			For Class 55 Rating, Add	297.52	
40 05 19 00-1145	EA		8" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,230.32	264.60
			For Class 52 Rating, Deduct	-201.23	
			For Class 54 Rating, Add	137.21	
			For Class 55 Rating, Add	304.96	
40 05 19 00-1146	EA		8" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,278.13	266.69
			For Class 52 Rating, Deduct	-206.14	
			For Class 54 Rating, Add	140.55	
			For Class 55 Rating, Add	312.40	
40 05 19 00-1147	EA		8" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,325.92	268.78
			For Class 52 Rating, Deduct	-211.05	
			For Class 54 Rating, Add	143.90	
			For Class 55 Rating, Add	319.84	
40 05 19 00-1148	EA		8" Flanged x Plain End (FxPE), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,373.73	270.87
			For Class 52 Rating, Deduct	-215.97	
			For Class 54 Rating, Add	147.25	
			For Class 55 Rating, Add	327.29	
40 05 19 00-1149			10" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe (40 05 19 00-1028)		
40 05 19 00-1150	EA		10" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	697.53	233.36
			For Class 52 Rating, Deduct	-37.84	
			For Class 54 Rating, Add	25.80	
			For Class 55 Rating, Add	57.34	
40 05 19 00-1151	EA		10" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	759.54	235.44
			For Class 52 Rating, Deduct	-44.31	
			For Class 54 Rating, Add	30.21	
			For Class 55 Rating, Add	67.15	
40 05 19 00-1152	EA		10" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	821.55	237.53
			For Class 52 Rating, Deduct	-50.78	
			For Class 54 Rating, Add	34.62	
			For Class 55 Rating, Add	76.96	
40 05 19 00-1153	EA		10" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	883.56	239.61
			For Class 52 Rating, Deduct	-57.26	
			For Class 54 Rating, Add	39.04	
			For Class 55 Rating, Add	86.77	
40 05 19 00-1154	EA		10" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	945.56	241.70
			For Class 52 Rating, Deduct	-63.73	
			For Class 54 Rating, Add	43.45	
			For Class 55 Rating, Add	96.58	
40 05 19 00-1155	EA		10" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,007.57	243.77
			For Class 52 Rating, Deduct	-70.20	
			For Class 54 Rating, Add	47.87	
			For Class 55 Rating, Add	106.39	
40 05 19 00-1156	EA		10" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,069.57	245.86
			For Class 52 Rating, Deduct	-76.68	
			For Class 54 Rating, Add	52.28	
			For Class 55 Rating, Add	116.20	
40 05 19 00-1157	EA		10" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,131.58	247.95
			For Class 52 Rating, Deduct	-83.15	
			For Class 54 Rating, Add	56.69	
			For Class 55 Rating, Add	126.01	
40 05 19 00-1158	EA		10" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,193.59	250.02
			For Class 52 Rating, Deduct	-89.62	
			For Class 54 Rating, Add	61.11	
			For Class 55 Rating, Add	135.82	



	MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1159	EA			10" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,255.58	252.11
				For Class 52 Rating, Deduct	-96.10	
				For Class 54 Rating, Add	65.52	
				For Class 55 Rating, Add	145.63	
40 05 19 00-1160	EA			10" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,317.59	254.19
				For Class 52 Rating, Deduct	-102.57	
				For Class 54 Rating, Add	69.93	
				For Class 55 Rating, Add	155.44	
40 05 19 00-1161	EA			10" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,379.60	256.28
				For Class 52 Rating, Deduct	-109.04	
				For Class 54 Rating, Add	74.35	
				For Class 55 Rating, Add	165.25	
40 05 19 00-1162	EA			10" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,441.61	258.36
				For Class 52 Rating, Deduct	-115.52	
				For Class 54 Rating, Add	78.76	
				For Class 55 Rating, Add	175.06	
40 05 19 00-1163	EA			10" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,503.61	260.44
				For Class 52 Rating, Deduct	-121.99	
				For Class 54 Rating, Add	83.18	
				For Class 55 Rating, Add	184.87	
40 05 19 00-1164	EA			10" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,565.62	262.53
				For Class 52 Rating, Deduct	-128.46	
				For Class 54 Rating, Add	87.59	
				For Class 55 Rating, Add	194.68	
40 05 19 00-1165	EA			10" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,627.62	264.60
				For Class 52 Rating, Deduct	-134.94	
				For Class 54 Rating, Add	92.00	
				For Class 55 Rating, Add	204.49	
40 05 19 00-1166	EA			10" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,689.64	266.69
				For Class 52 Rating, Deduct	-141.41	
				For Class 54 Rating, Add	96.42	
				For Class 55 Rating, Add	214.30	
40 05 19 00-1167	EA			10" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,751.64	268.78
				For Class 52 Rating, Deduct	-147.88	
				For Class 54 Rating, Add	100.83	
				For Class 55 Rating, Add	224.11	
40 05 19 00-1168	EA			10" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,813.65	270.87
				For Class 52 Rating, Deduct	-154.36	
				For Class 54 Rating, Add	105.24	
				For Class 55 Rating, Add	233.92	
40 05 19 00-1169	EA			10" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,875.65	272.95
				For Class 52 Rating, Deduct	-160.83	
				For Class 54 Rating, Add	109.66	
				For Class 55 Rating, Add	243.73	
40 05 19 00-1170	EA			10" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,937.66	275.03
				For Class 52 Rating, Deduct	-167.30	
				For Class 54 Rating, Add	114.07	
				For Class 55 Rating, Add	253.54	
40 05 19 00-1171	EA			10" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,999.66	277.12
				For Class 52 Rating, Deduct	-173.78	
				For Class 54 Rating, Add	118.48	
				For Class 55 Rating, Add	263.35	
40 05 19 00-1172	EA			10" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,061.67	279.20
				For Class 52 Rating, Deduct	-180.25	
				For Class 54 Rating, Add	122.90	
				For Class 55 Rating, Add	273.16	
40 05 19 00-1173	EA			10" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,123.67	281.28
				For Class 52 Rating, Deduct	-186.72	
				For Class 54 Rating, Add	127.31	
				For Class 55 Rating, Add	282.97	
40 05 19 00-1174	EA			10" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,185.68	283.37
				For Class 52 Rating, Deduct	-193.20	
				For Class 54 Rating, Add	131.73	
				For Class 55 Rating, Add	292.78	
40 05 19 00-1175	EA			10" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,247.69	285.45
				For Class 52 Rating, Deduct	-199.67	
				For Class 54 Rating, Add	136.14	
				For Class 55 Rating, Add	302.59	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1176	EA	10" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,309.70	287.53
		<i>For Class 52 Rating, Deduct</i>	-206.14	
		<i>For Class 54 Rating, Add</i>	140.55	
		<i>For Class 55 Rating, Add</i>	312.40	
40 05 19 00-1177	EA	10" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,371.70	289.61
		<i>For Class 52 Rating, Deduct</i>	-212.62	
		<i>For Class 54 Rating, Add</i>	144.97	
		<i>For Class 55 Rating, Add</i>	322.21	
40 05 19 00-1178	EA	10" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,433.70	291.70
		<i>For Class 52 Rating, Deduct</i>	-219.09	
		<i>For Class 54 Rating, Add</i>	149.38	
		<i>For Class 55 Rating, Add</i>	332.02	
40 05 19 00-1179	EA	10" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,495.71	293.79
		<i>For Class 52 Rating, Deduct</i>	-225.56	
		<i>For Class 54 Rating, Add</i>	153.79	
		<i>For Class 55 Rating, Add</i>	341.83	
40 05 19 00-1180	EA	10" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,557.72	295.86
		<i>For Class 52 Rating, Deduct</i>	-232.04	
		<i>For Class 54 Rating, Add</i>	158.21	
		<i>For Class 55 Rating, Add</i>	351.64	
40 05 19 00-1181	EA	10" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,619.73	297.95
		<i>For Class 52 Rating, Deduct</i>	-238.51	
		<i>For Class 54 Rating, Add</i>	162.62	
		<i>For Class 55 Rating, Add</i>	361.45	
40 05 19 00-1182	EA	10" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,681.72	300.03
		<i>For Class 52 Rating, Deduct</i>	-244.98	
		<i>For Class 54 Rating, Add</i>	167.03	
		<i>For Class 55 Rating, Add</i>	371.26	
40 05 19 00-1183	EA	10" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,743.73	302.11
		<i>For Class 52 Rating, Deduct</i>	-251.46	
		<i>For Class 54 Rating, Add</i>	171.45	
		<i>For Class 55 Rating, Add</i>	381.07	
40 05 19 00-1184	EA	10" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,805.74	304.20
		<i>For Class 52 Rating, Deduct</i>	-257.93	
		<i>For Class 54 Rating, Add</i>	175.86	
		<i>For Class 55 Rating, Add</i>	390.88	
40 05 19 00-1185	EA	10" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,867.75	306.28
		<i>For Class 52 Rating, Deduct</i>	-264.40	
		<i>For Class 54 Rating, Add</i>	180.28	
		<i>For Class 55 Rating, Add</i>	400.69	
40 05 19 00-1186	EA	10" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,929.75	308.37
		<i>For Class 52 Rating, Deduct</i>	-270.88	
		<i>For Class 54 Rating, Add</i>	184.69	
		<i>For Class 55 Rating, Add</i>	410.50	
40 05 19 00-1187	EA	10" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,991.76	310.44
		<i>For Class 52 Rating, Deduct</i>	-277.35	
		<i>For Class 54 Rating, Add</i>	189.10	
		<i>For Class 55 Rating, Add</i>	420.31	
40 05 19 00-1188	EA	10" Flanged x Plain End (FxPE), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,053.76	312.53
		<i>For Class 52 Rating, Deduct</i>	-283.83	
		<i>For Class 54 Rating, Add</i>	193.52	
		<i>For Class 55 Rating, Add</i>	430.12	
40 05 19 00-1189		12" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-1028)</small>		
40 05 19 00-1190	EA	12" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	900.58	291.70
		<i>For Class 52 Rating, Deduct</i>	-50.45	
		<i>For Class 54 Rating, Add</i>	34.40	
		<i>For Class 55 Rating, Add</i>	76.45	
40 05 19 00-1191	EA	12" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	977.81	293.79
		<i>For Class 52 Rating, Deduct</i>	-58.60	
		<i>For Class 54 Rating, Add</i>	39.95	
		<i>For Class 55 Rating, Add</i>	88.80	
40 05 19 00-1192	EA	12" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,055.03	295.86
		<i>For Class 52 Rating, Deduct</i>	-66.74	
		<i>For Class 54 Rating, Add</i>	45.51	
		<i>For Class 55 Rating, Add</i>	101.15	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1193 EA 12" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,132.26	297.95
<i>For Class 52 Rating, Deduct</i>	-74.89	
<i>For Class 54 Rating, Add</i>	51.06	
<i>For Class 55 Rating, Add</i>	113.49	
40 05 19 00-1194 EA 12" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,209.48	300.03
<i>For Class 52 Rating, Deduct</i>	-83.04	
<i>For Class 54 Rating, Add</i>	56.62	
<i>For Class 55 Rating, Add</i>	125.84	
40 05 19 00-1195 EA 12" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,286.71	302.11
<i>For Class 52 Rating, Deduct</i>	-91.19	
<i>For Class 54 Rating, Add</i>	62.17	
<i>For Class 55 Rating, Add</i>	138.19	
40 05 19 00-1196 EA 12" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,363.94	304.20
<i>For Class 52 Rating, Deduct</i>	-99.33	
<i>For Class 54 Rating, Add</i>	67.73	
<i>For Class 55 Rating, Add</i>	150.54	
40 05 19 00-1197 EA 12" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,441.17	306.28
<i>For Class 52 Rating, Deduct</i>	-107.48	
<i>For Class 54 Rating, Add</i>	73.28	
<i>For Class 55 Rating, Add</i>	162.88	
40 05 19 00-1198 EA 12" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,518.39	308.37
<i>For Class 52 Rating, Deduct</i>	-115.63	
<i>For Class 54 Rating, Add</i>	78.84	
<i>For Class 55 Rating, Add</i>	175.23	
40 05 19 00-1199 EA 12" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,595.62	310.44
<i>For Class 52 Rating, Deduct</i>	-123.78	
<i>For Class 54 Rating, Add</i>	84.39	
<i>For Class 55 Rating, Add</i>	187.58	
40 05 19 00-1200 EA 12" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,672.83	312.53
<i>For Class 52 Rating, Deduct</i>	-131.92	
<i>For Class 54 Rating, Add</i>	89.95	
<i>For Class 55 Rating, Add</i>	199.92	
40 05 19 00-1201 EA 12" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,750.07	314.62
<i>For Class 52 Rating, Deduct</i>	-140.07	
<i>For Class 54 Rating, Add</i>	95.50	
<i>For Class 55 Rating, Add</i>	212.27	
40 05 19 00-1202 EA 12" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,827.29	316.69
<i>For Class 52 Rating, Deduct</i>	-148.22	
<i>For Class 54 Rating, Add</i>	101.06	
<i>For Class 55 Rating, Add</i>	224.62	
40 05 19 00-1203 EA 12" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,904.52	318.78
<i>For Class 52 Rating, Deduct</i>	-156.37	
<i>For Class 54 Rating, Add</i>	106.61	
<i>For Class 55 Rating, Add</i>	236.97	
40 05 19 00-1204 EA 12" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,981.74	320.87
<i>For Class 52 Rating, Deduct</i>	-164.51	
<i>For Class 54 Rating, Add</i>	112.17	
<i>For Class 55 Rating, Add</i>	249.31	
40 05 19 00-1205 EA 12" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,058.97	322.96
<i>For Class 52 Rating, Deduct</i>	-172.66	
<i>For Class 54 Rating, Add</i>	117.72	
<i>For Class 55 Rating, Add</i>	261.66	
40 05 19 00-1206 EA 12" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,136.20	325.04
<i>For Class 52 Rating, Deduct</i>	-180.81	
<i>For Class 54 Rating, Add</i>	123.28	
<i>For Class 55 Rating, Add</i>	274.01	
40 05 19 00-1207 EA 12" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,213.43	327.12
<i>For Class 52 Rating, Deduct</i>	-188.96	
<i>For Class 54 Rating, Add</i>	128.83	
<i>For Class 55 Rating, Add</i>	286.36	
40 05 19 00-1208 EA 12" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,290.64	329.21
<i>For Class 52 Rating, Deduct</i>	-197.10	
<i>For Class 54 Rating, Add</i>	134.39	
<i>For Class 55 Rating, Add</i>	298.70	
40 05 19 00-1209 EA 12" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,367.86	331.28
<i>For Class 52 Rating, Deduct</i>	-205.25	
<i>For Class 54 Rating, Add</i>	139.94	
<i>For Class 55 Rating, Add</i>	311.05	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1210	EA		12" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,445.10	333.37
			For Class 52 Rating, Deduct	-213.40	
			For Class 54 Rating, Add	145.50	
			For Class 55 Rating, Add	323.40	
40 05 19 00-1211	EA		12" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,522.32	335.46
			For Class 52 Rating, Deduct	-221.55	
			For Class 54 Rating, Add	151.05	
			For Class 55 Rating, Add	335.74	
40 05 19 00-1212	EA		12" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,599.55	337.54
			For Class 52 Rating, Deduct	-229.69	
			For Class 54 Rating, Add	156.61	
			For Class 55 Rating, Add	348.09	
40 05 19 00-1213	EA		12" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,676.77	339.62
			For Class 52 Rating, Deduct	-237.84	
			For Class 54 Rating, Add	162.17	
			For Class 55 Rating, Add	360.44	
40 05 19 00-1214	EA		12" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,754.00	341.70
			For Class 52 Rating, Deduct	-245.99	
			For Class 54 Rating, Add	167.72	
			For Class 55 Rating, Add	372.79	
40 05 19 00-1215	EA		12" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,831.23	343.79
			For Class 52 Rating, Deduct	-254.14	
			For Class 54 Rating, Add	173.28	
			For Class 55 Rating, Add	385.13	
40 05 19 00-1216	EA		12" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,908.45	345.87
			For Class 52 Rating, Deduct	-262.28	
			For Class 54 Rating, Add	178.83	
			For Class 55 Rating, Add	397.48	
40 05 19 00-1217	EA		12" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,985.67	347.95
			For Class 52 Rating, Deduct	-270.43	
			For Class 54 Rating, Add	184.39	
			For Class 55 Rating, Add	409.83	
40 05 19 00-1218	EA		12" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,062.90	350.04
			For Class 52 Rating, Deduct	-278.58	
			For Class 54 Rating, Add	189.94	
			For Class 55 Rating, Add	422.17	
40 05 19 00-1219	EA		12" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,140.12	352.12
			For Class 52 Rating, Deduct	-286.73	
			For Class 54 Rating, Add	195.50	
			For Class 55 Rating, Add	434.52	
40 05 19 00-1220	EA		12" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,217.36	354.20
			For Class 52 Rating, Deduct	-294.87	
			For Class 54 Rating, Add	201.05	
			For Class 55 Rating, Add	446.87	
40 05 19 00-1221	EA		12" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,294.58	356.28
			For Class 52 Rating, Deduct	-303.02	
			For Class 54 Rating, Add	206.61	
			For Class 55 Rating, Add	459.22	
40 05 19 00-1222	EA		12" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,371.81	358.37
			For Class 52 Rating, Deduct	-311.17	
			For Class 54 Rating, Add	212.16	
			For Class 55 Rating, Add	471.56	
40 05 19 00-1223	EA		12" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,449.02	360.46
			For Class 52 Rating, Deduct	-319.32	
			For Class 54 Rating, Add	217.72	
			For Class 55 Rating, Add	483.91	
40 05 19 00-1224	EA		12" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,526.26	362.53
			For Class 52 Rating, Deduct	-327.46	
			For Class 54 Rating, Add	223.27	
			For Class 55 Rating, Add	496.26	
40 05 19 00-1225	EA		12" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,603.48	364.62
			For Class 52 Rating, Deduct	-335.61	
			For Class 54 Rating, Add	228.83	
			For Class 55 Rating, Add	508.61	
40 05 19 00-1226	EA		12" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,680.71	366.70
			For Class 52 Rating, Deduct	-343.76	
			For Class 54 Rating, Add	234.38	
			For Class 55 Rating, Add	520.95	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1227 EA 12" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,757.93	368.79
<i>For Class 52 Rating, Deduct</i>	-351.91	
<i>For Class 54 Rating, Add</i>	239.94	
<i>For Class 55 Rating, Add</i>	533.30	
40 05 19 00-1228 EA 12" Flanged x Plain End (FxPE), 20'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,835.16	370.88
<i>For Class 52 Rating, Deduct</i>	-360.06	
<i>For Class 54 Rating, Add</i>	245.49	
<i>For Class 55 Rating, Add</i>	545.65	
40 05 19 00-1229 14" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		
<small>(40 05 19 00-1028)</small>		
40 05 19 00-1230 EA 14" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,184.80	350.04
<i>For Class 52 Rating, Deduct</i>	-71.99	
<i>For Class 54 Rating, Add</i>	49.08	
<i>For Class 55 Rating, Add</i>	109.10	
40 05 19 00-1231 EA 14" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,278.26	352.12
<i>For Class 52 Rating, Deduct</i>	-81.92	
<i>For Class 54 Rating, Add</i>	55.86	
<i>For Class 55 Rating, Add</i>	124.15	
40 05 19 00-1232 EA 14" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,371.73	354.20
<i>For Class 52 Rating, Deduct</i>	-91.86	
<i>For Class 54 Rating, Add</i>	62.63	
<i>For Class 55 Rating, Add</i>	139.20	
40 05 19 00-1233 EA 14" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,465.18	356.28
<i>For Class 52 Rating, Deduct</i>	-101.79	
<i>For Class 54 Rating, Add</i>	69.40	
<i>For Class 55 Rating, Add</i>	154.26	
40 05 19 00-1234 EA 14" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,558.64	358.37
<i>For Class 52 Rating, Deduct</i>	-111.72	
<i>For Class 54 Rating, Add</i>	76.17	
<i>For Class 55 Rating, Add</i>	169.31	
40 05 19 00-1235 EA 14" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,652.10	360.46
<i>For Class 52 Rating, Deduct</i>	-121.66	
<i>For Class 54 Rating, Add</i>	82.95	
<i>For Class 55 Rating, Add</i>	184.36	
40 05 19 00-1236 EA 14" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,745.57	362.53
<i>For Class 52 Rating, Deduct</i>	-131.59	
<i>For Class 54 Rating, Add</i>	89.72	
<i>For Class 55 Rating, Add</i>	199.42	
40 05 19 00-1237 EA 14" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,839.02	364.62
<i>For Class 52 Rating, Deduct</i>	-141.52	
<i>For Class 54 Rating, Add</i>	96.49	
<i>For Class 55 Rating, Add</i>	214.47	
40 05 19 00-1238 EA 14" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,932.49	366.70
<i>For Class 52 Rating, Deduct</i>	-151.46	
<i>For Class 54 Rating, Add</i>	103.27	
<i>For Class 55 Rating, Add</i>	229.52	
40 05 19 00-1239 EA 14" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,025.94	368.79
<i>For Class 52 Rating, Deduct</i>	-161.39	
<i>For Class 54 Rating, Add</i>	110.04	
<i>For Class 55 Rating, Add</i>	244.58	
40 05 19 00-1240 EA 14" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,119.40	370.88
<i>For Class 52 Rating, Deduct</i>	-171.32	
<i>For Class 54 Rating, Add</i>	116.81	
<i>For Class 55 Rating, Add</i>	259.63	
40 05 19 00-1241 EA 14" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,212.87	372.96
<i>For Class 52 Rating, Deduct</i>	-181.26	
<i>For Class 54 Rating, Add</i>	123.58	
<i>For Class 55 Rating, Add</i>	274.68	
40 05 19 00-1242 EA 14" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,306.32	375.05
<i>For Class 52 Rating, Deduct</i>	-191.19	
<i>For Class 54 Rating, Add</i>	130.36	
<i>For Class 55 Rating, Add</i>	289.74	
40 05 19 00-1243 EA 14" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,399.78	377.12
<i>For Class 52 Rating, Deduct</i>	-201.12	
<i>For Class 54 Rating, Add</i>	137.13	
<i>For Class 55 Rating, Add</i>	304.79	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1244	EA		14" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,493.23	379.21
			<i>For Class 52 Rating, Deduct</i>	-211.05	
			<i>For Class 54 Rating, Add</i>	143.90	
			<i>For Class 55 Rating, Add</i>	319.84	
40 05 19 00-1245	EA		14" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,586.71	381.30
			<i>For Class 52 Rating, Deduct</i>	-220.99	
			<i>For Class 54 Rating, Add</i>	150.67	
			<i>For Class 55 Rating, Add</i>	334.90	
40 05 19 00-1246	EA		14" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,680.16	383.37
			<i>For Class 52 Rating, Deduct</i>	-230.92	
			<i>For Class 54 Rating, Add</i>	157.45	
			<i>For Class 55 Rating, Add</i>	349.95	
40 05 19 00-1247	EA		14" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,773.62	385.46
			<i>For Class 52 Rating, Deduct</i>	-240.85	
			<i>For Class 54 Rating, Add</i>	164.22	
			<i>For Class 55 Rating, Add</i>	365.00	
40 05 19 00-1248	EA		14" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,867.08	387.54
			<i>For Class 52 Rating, Deduct</i>	-250.79	
			<i>For Class 54 Rating, Add</i>	170.99	
			<i>For Class 55 Rating, Add</i>	380.06	
40 05 19 00-1249	EA		14" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,960.54	389.63
			<i>For Class 52 Rating, Deduct</i>	-260.72	
			<i>For Class 54 Rating, Add</i>	177.77	
			<i>For Class 55 Rating, Add</i>	395.11	
40 05 19 00-1250	EA		14" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,054.00	391.71
			<i>For Class 52 Rating, Deduct</i>	-270.66	
			<i>For Class 54 Rating, Add</i>	184.54	
			<i>For Class 55 Rating, Add</i>	410.17	
40 05 19 00-1251	EA		14" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,147.46	393.79
			<i>For Class 52 Rating, Deduct</i>	-280.59	
			<i>For Class 54 Rating, Add</i>	191.31	
			<i>For Class 55 Rating, Add</i>	425.22	
40 05 19 00-1252	EA		14" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,240.92	395.88
			<i>For Class 52 Rating, Deduct</i>	-290.52	
			<i>For Class 54 Rating, Add</i>	198.08	
			<i>For Class 55 Rating, Add</i>	440.27	
40 05 19 00-1253	EA		14" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,334.38	397.96
			<i>For Class 52 Rating, Deduct</i>	-300.46	
			<i>For Class 54 Rating, Add</i>	204.86	
			<i>For Class 55 Rating, Add</i>	455.33	
40 05 19 00-1254	EA		14" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,427.83	400.04
			<i>For Class 52 Rating, Deduct</i>	-310.39	
			<i>For Class 54 Rating, Add</i>	211.63	
			<i>For Class 55 Rating, Add</i>	470.38	
40 05 19 00-1255	EA		14" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,521.31	402.13
			<i>For Class 52 Rating, Deduct</i>	-320.32	
			<i>For Class 54 Rating, Add</i>	218.40	
			<i>For Class 55 Rating, Add</i>	485.43	
40 05 19 00-1256	EA		14" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,614.76	404.21
			<i>For Class 52 Rating, Deduct</i>	-330.26	
			<i>For Class 54 Rating, Add</i>	225.17	
			<i>For Class 55 Rating, Add</i>	500.49	
40 05 19 00-1257	EA		14" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,708.22	406.29
			<i>For Class 52 Rating, Deduct</i>	-340.19	
			<i>For Class 54 Rating, Add</i>	231.95	
			<i>For Class 55 Rating, Add</i>	515.54	
40 05 19 00-1258	EA		14" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,801.68	408.37
			<i>For Class 52 Rating, Deduct</i>	-350.12	
			<i>For Class 54 Rating, Add</i>	238.72	
			<i>For Class 55 Rating, Add</i>	530.59	
40 05 19 00-1259	EA		14" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,895.15	410.46
			<i>For Class 52 Rating, Deduct</i>	-360.06	
			<i>For Class 54 Rating, Add</i>	245.49	
			<i>For Class 55 Rating, Add</i>	545.65	
40 05 19 00-1260	EA		14" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,988.60	412.54
			<i>For Class 52 Rating, Deduct</i>	-369.99	
			<i>For Class 54 Rating, Add</i>	252.26	
			<i>For Class 55 Rating, Add</i>	560.70	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1261 EA 14" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,082.05	414.62
For Class 52 Rating, Deduct	-379.92	
For Class 54 Rating, Add	259.04	
For Class 55 Rating, Add	575.75	
40 05 19 00-1262 EA 14" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,175.52	416.71
For Class 52 Rating, Deduct	-389.86	
For Class 54 Rating, Add	265.81	
For Class 55 Rating, Add	590.81	
40 05 19 00-1263 EA 14" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,268.97	418.80
For Class 52 Rating, Deduct	-399.79	
For Class 54 Rating, Add	272.58	
For Class 55 Rating, Add	605.86	
40 05 19 00-1264 EA 14" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,362.44	420.88
For Class 52 Rating, Deduct	-409.72	
For Class 54 Rating, Add	279.36	
For Class 55 Rating, Add	620.91	
40 05 19 00-1265 EA 14" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,455.90	422.96
For Class 52 Rating, Deduct	-419.66	
For Class 54 Rating, Add	286.13	
For Class 55 Rating, Add	635.97	
40 05 19 00-1266 EA 14" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,549.36	425.05
For Class 52 Rating, Deduct	-429.59	
For Class 54 Rating, Add	292.90	
For Class 55 Rating, Add	651.02	
40 05 19 00-1267 EA 14" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,642.81	427.14
For Class 52 Rating, Deduct	-439.52	
For Class 54 Rating, Add	299.67	
For Class 55 Rating, Add	666.07	
40 05 19 00-1268 16" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		
(40 05 19 00-1028)		
40 05 19 00-1269 EA 16" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,380.29	400.04
For Class 52 Rating, Deduct	-85.16	
For Class 54 Rating, Add	58.06	
For Class 55 Rating, Add	129.05	
40 05 19 00-1270 EA 16" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,488.98	402.13
For Class 52 Rating, Deduct	-96.77	
For Class 54 Rating, Add	65.98	
For Class 55 Rating, Add	146.64	
40 05 19 00-1271 EA 16" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,597.66	404.21
For Class 52 Rating, Deduct	-108.37	
For Class 54 Rating, Add	73.89	
For Class 55 Rating, Add	164.24	
40 05 19 00-1272 EA 16" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,706.34	406.29
For Class 52 Rating, Deduct	-119.98	
For Class 54 Rating, Add	81.81	
For Class 55 Rating, Add	181.83	
40 05 19 00-1273 EA 16" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,815.01	408.37
For Class 52 Rating, Deduct	-131.59	
For Class 54 Rating, Add	89.72	
For Class 55 Rating, Add	199.42	
40 05 19 00-1274 EA 16" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,923.70	410.46
For Class 52 Rating, Deduct	-143.20	
For Class 54 Rating, Add	97.63	
For Class 55 Rating, Add	217.01	
40 05 19 00-1275 EA 16" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,032.38	412.54
For Class 52 Rating, Deduct	-154.80	
For Class 54 Rating, Add	105.55	
For Class 55 Rating, Add	234.60	
40 05 19 00-1276 EA 16" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,141.05	414.62
For Class 52 Rating, Deduct	-166.41	
For Class 54 Rating, Add	113.46	
For Class 55 Rating, Add	252.19	
40 05 19 00-1277 EA 16" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,249.73	416.71
For Class 52 Rating, Deduct	-178.02	
For Class 54 Rating, Add	121.38	
For Class 55 Rating, Add	269.78	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1278	EA		16" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,358.40	418.80
			<i>For Class 52 Rating, Deduct</i>	-189.63	
			<i>For Class 54 Rating, Add</i>	129.29	
			<i>For Class 55 Rating, Add</i>	287.37	
40 05 19 00-1279	EA		16" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,467.10	420.88
			<i>For Class 52 Rating, Deduct</i>	-201.23	
			<i>For Class 54 Rating, Add</i>	137.21	
			<i>For Class 55 Rating, Add</i>	304.96	
40 05 19 00-1280	EA		16" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,575.77	422.96
			<i>For Class 52 Rating, Deduct</i>	-212.84	
			<i>For Class 54 Rating, Add</i>	145.12	
			<i>For Class 55 Rating, Add</i>	322.55	
40 05 19 00-1281	EA		16" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,684.45	425.05
			<i>For Class 52 Rating, Deduct</i>	-224.45	
			<i>For Class 54 Rating, Add</i>	153.03	
			<i>For Class 55 Rating, Add</i>	340.14	
40 05 19 00-1282	EA		16" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,793.12	427.14
			<i>For Class 52 Rating, Deduct</i>	-236.06	
			<i>For Class 54 Rating, Add</i>	160.95	
			<i>For Class 55 Rating, Add</i>	357.73	
40 05 19 00-1283	EA		16" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,901.81	429.21
			<i>For Class 52 Rating, Deduct</i>	-247.66	
			<i>For Class 54 Rating, Add</i>	168.86	
			<i>For Class 55 Rating, Add</i>	375.32	
40 05 19 00-1284	EA		16" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,010.49	431.30
			<i>For Class 52 Rating, Deduct</i>	-259.27	
			<i>For Class 54 Rating, Add</i>	176.78	
			<i>For Class 55 Rating, Add</i>	392.91	
40 05 19 00-1285	EA		16" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,119.17	433.38
			<i>For Class 52 Rating, Deduct</i>	-270.88	
			<i>For Class 54 Rating, Add</i>	184.69	
			<i>For Class 55 Rating, Add</i>	410.50	
40 05 19 00-1286	EA		16" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,227.84	435.46
			<i>For Class 52 Rating, Deduct</i>	-282.49	
			<i>For Class 54 Rating, Add</i>	192.60	
			<i>For Class 55 Rating, Add</i>	428.09	
40 05 19 00-1287	EA		16" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,336.53	437.55
			<i>For Class 52 Rating, Deduct</i>	-294.09	
			<i>For Class 54 Rating, Add</i>	200.52	
			<i>For Class 55 Rating, Add</i>	445.69	
40 05 19 00-1288	EA		16" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,445.21	439.63
			<i>For Class 52 Rating, Deduct</i>	-305.70	
			<i>For Class 54 Rating, Add</i>	208.43	
			<i>For Class 55 Rating, Add</i>	463.28	
40 05 19 00-1289	EA		16" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,553.89	441.72
			<i>For Class 52 Rating, Deduct</i>	-317.31	
			<i>For Class 54 Rating, Add</i>	216.35	
			<i>For Class 55 Rating, Add</i>	480.87	
40 05 19 00-1290	EA		16" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,662.56	443.79
			<i>For Class 52 Rating, Deduct</i>	-328.92	
			<i>For Class 54 Rating, Add</i>	224.26	
			<i>For Class 55 Rating, Add</i>	498.46	
40 05 19 00-1291	EA		16" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,771.25	445.88
			<i>For Class 52 Rating, Deduct</i>	-340.52	
			<i>For Class 54 Rating, Add</i>	232.18	
			<i>For Class 55 Rating, Add</i>	516.05	
40 05 19 00-1292	EA		16" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,879.92	447.97
			<i>For Class 52 Rating, Deduct</i>	-352.13	
			<i>For Class 54 Rating, Add</i>	240.09	
			<i>For Class 55 Rating, Add</i>	533.64	
40 05 19 00-1293	EA		16" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,988.61	450.05
			<i>For Class 52 Rating, Deduct</i>	-363.74	
			<i>For Class 54 Rating, Add</i>	248.00	
			<i>For Class 55 Rating, Add</i>	551.23	
40 05 19 00-1294	EA		16" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,097.28	452.13
			<i>For Class 52 Rating, Deduct</i>	-375.35	
			<i>For Class 54 Rating, Add</i>	255.92	
			<i>For Class 55 Rating, Add</i>	568.82	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1295 EA 16" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,205.97	454.21
<i>For Class 52 Rating, Deduct</i>	-386.95	
<i>For Class 54 Rating, Add</i>	263.83	
<i>For Class 55 Rating, Add</i>	586.41	
40 05 19 00-1296 EA 16" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,314.64	456.30
<i>For Class 52 Rating, Deduct</i>	-398.56	
<i>For Class 54 Rating, Add</i>	271.75	
<i>For Class 55 Rating, Add</i>	604.00	
40 05 19 00-1297 EA 16" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,423.32	458.38
<i>For Class 52 Rating, Deduct</i>	-410.17	
<i>For Class 54 Rating, Add</i>	279.66	
<i>For Class 55 Rating, Add</i>	621.59	
40 05 19 00-1298 EA 16" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,532.00	460.46
<i>For Class 52 Rating, Deduct</i>	-421.78	
<i>For Class 54 Rating, Add</i>	287.57	
<i>For Class 55 Rating, Add</i>	639.18	
40 05 19 00-1299 EA 16" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,640.68	462.55
<i>For Class 52 Rating, Deduct</i>	-433.38	
<i>For Class 54 Rating, Add</i>	295.49	
<i>For Class 55 Rating, Add</i>	656.77	
40 05 19 00-1300 EA 16" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,749.36	464.64
<i>For Class 52 Rating, Deduct</i>	-444.99	
<i>For Class 54 Rating, Add</i>	303.40	
<i>For Class 55 Rating, Add</i>	674.36	
40 05 19 00-1301 EA 16" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,858.03	466.72
<i>For Class 52 Rating, Deduct</i>	-456.60	
<i>For Class 54 Rating, Add</i>	311.32	
<i>For Class 55 Rating, Add</i>	691.95	
40 05 19 00-1302 EA 16" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,966.72	468.80
<i>For Class 52 Rating, Deduct</i>	-468.21	
<i>For Class 54 Rating, Add</i>	319.23	
<i>For Class 55 Rating, Add</i>	709.54	
40 05 19 00-1303 EA 16" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,075.40	470.89
<i>For Class 52 Rating, Deduct</i>	-479.81	
<i>For Class 54 Rating, Add</i>	327.15	
<i>For Class 55 Rating, Add</i>	727.14	
40 05 19 00-1304 EA 16" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,184.08	472.97
<i>For Class 52 Rating, Deduct</i>	-491.42	
<i>For Class 54 Rating, Add</i>	335.06	
<i>For Class 55 Rating, Add</i>	744.73	
40 05 19 00-1305 EA 16" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,292.75	475.05
<i>For Class 52 Rating, Deduct</i>	-503.03	
<i>For Class 54 Rating, Add</i>	342.97	
<i>For Class 55 Rating, Add</i>	762.32	
40 05 19 00-1306 EA 16" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,401.43	477.14
<i>For Class 52 Rating, Deduct</i>	-514.64	
<i>For Class 54 Rating, Add</i>	350.89	
<i>For Class 55 Rating, Add</i>	779.91	
40 05 19 00-1307 18" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		
<small>(40 05 19 00-1028)</small>		
40 05 19 00-1308 EA 18" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,591.26	450.88
<i>For Class 52 Rating, Deduct</i>	-99.89	
<i>For Class 54 Rating, Add</i>	68.11	
<i>For Class 55 Rating, Add</i>	151.38	
40 05 19 00-1309 EA 18" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,716.17	452.97
<i>For Class 52 Rating, Deduct</i>	-113.28	
<i>For Class 54 Rating, Add</i>	77.24	
<i>For Class 55 Rating, Add</i>	171.68	
40 05 19 00-1310 EA 18" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,841.09	455.04
<i>For Class 52 Rating, Deduct</i>	-126.68	
<i>For Class 54 Rating, Add</i>	86.37	
<i>For Class 55 Rating, Add</i>	191.98	
40 05 19 00-1311 EA 18" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	1,965.99	457.13
<i>For Class 52 Rating, Deduct</i>	-140.07	
<i>For Class 54 Rating, Add</i>	95.50	
<i>For Class 55 Rating, Add</i>	212.27	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1312	EA		18" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,090.92	459.22
			<i>For Class 52 Rating, Deduct</i>	-153.46	
			<i>For Class 54 Rating, Add</i>	104.63	
			<i>For Class 55 Rating, Add</i>	232.57	
40 05 19 00-1313	EA		18" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,215.83	461.29
			<i>For Class 52 Rating, Deduct</i>	-166.86	
			<i>For Class 54 Rating, Add</i>	113.77	
			<i>For Class 55 Rating, Add</i>	252.87	
40 05 19 00-1314	EA		18" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,340.74	463.38
			<i>For Class 52 Rating, Deduct</i>	-180.25	
			<i>For Class 54 Rating, Add</i>	122.90	
			<i>For Class 55 Rating, Add</i>	273.16	
40 05 19 00-1315	EA		18" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,465.65	465.47
			<i>For Class 52 Rating, Deduct</i>	-193.64	
			<i>For Class 54 Rating, Add</i>	132.03	
			<i>For Class 55 Rating, Add</i>	293.46	
40 05 19 00-1316	EA		18" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,590.57	467.56
			<i>For Class 52 Rating, Deduct</i>	-207.04	
			<i>For Class 54 Rating, Add</i>	141.16	
			<i>For Class 55 Rating, Add</i>	313.76	
40 05 19 00-1317	EA		18" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,715.48	469.64
			<i>For Class 52 Rating, Deduct</i>	-220.43	
			<i>For Class 54 Rating, Add</i>	150.29	
			<i>For Class 55 Rating, Add</i>	334.05	
40 05 19 00-1318	EA		18" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,840.40	471.72
			<i>For Class 52 Rating, Deduct</i>	-233.82	
			<i>For Class 54 Rating, Add</i>	159.43	
			<i>For Class 55 Rating, Add</i>	354.35	
40 05 19 00-1319	EA		18" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,965.31	473.81
			<i>For Class 52 Rating, Deduct</i>	-247.22	
			<i>For Class 54 Rating, Add</i>	168.56	
			<i>For Class 55 Rating, Add</i>	374.65	
40 05 19 00-1320	EA		18" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,090.22	475.88
			<i>For Class 52 Rating, Deduct</i>	-260.61	
			<i>For Class 54 Rating, Add</i>	177.69	
			<i>For Class 55 Rating, Add</i>	394.94	
40 05 19 00-1321	EA		18" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,215.14	477.97
			<i>For Class 52 Rating, Deduct</i>	-274.00	
			<i>For Class 54 Rating, Add</i>	186.82	
			<i>For Class 55 Rating, Add</i>	415.24	
40 05 19 00-1322	EA		18" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,340.06	480.06
			<i>For Class 52 Rating, Deduct</i>	-287.40	
			<i>For Class 54 Rating, Add</i>	195.95	
			<i>For Class 55 Rating, Add</i>	435.54	
40 05 19 00-1323	EA		18" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,464.96	482.14
			<i>For Class 52 Rating, Deduct</i>	-300.79	
			<i>For Class 54 Rating, Add</i>	205.08	
			<i>For Class 55 Rating, Add</i>	455.83	
40 05 19 00-1324	EA		18" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,589.88	484.22
			<i>For Class 52 Rating, Deduct</i>	-314.18	
			<i>For Class 54 Rating, Add</i>	214.22	
			<i>For Class 55 Rating, Add</i>	476.13	
40 05 19 00-1325	EA		18" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,714.79	486.30
			<i>For Class 52 Rating, Deduct</i>	-327.58	
			<i>For Class 54 Rating, Add</i>	223.35	
			<i>For Class 55 Rating, Add</i>	496.43	
40 05 19 00-1326	EA		18" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,839.71	488.39
			<i>For Class 52 Rating, Deduct</i>	-340.97	
			<i>For Class 54 Rating, Add</i>	232.48	
			<i>For Class 55 Rating, Add</i>	516.72	
40 05 19 00-1327	EA		18" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,964.62	490.47
			<i>For Class 52 Rating, Deduct</i>	-354.36	
			<i>For Class 54 Rating, Add</i>	241.61	
			<i>For Class 55 Rating, Add</i>	537.02	
40 05 19 00-1328	EA		18" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,089.53	492.55
			<i>For Class 52 Rating, Deduct</i>	-367.76	
			<i>For Class 54 Rating, Add</i>	250.74	
			<i>For Class 55 Rating, Add</i>	557.32	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1329 EA 18" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,214.45	494.64
<i>For Class 52 Rating, Deduct</i>	-381.15	
<i>For Class 54 Rating, Add</i>	259.88	
<i>For Class 55 Rating, Add</i>	577.62	
40 05 19 00-1330 EA 18" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,339.35	496.72
<i>For Class 52 Rating, Deduct</i>	-394.54	
<i>For Class 54 Rating, Add</i>	269.01	
<i>For Class 55 Rating, Add</i>	597.91	
40 05 19 00-1331 EA 18" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,464.28	498.80
<i>For Class 52 Rating, Deduct</i>	-407.94	
<i>For Class 54 Rating, Add</i>	278.14	
<i>For Class 55 Rating, Add</i>	618.21	
40 05 19 00-1332 EA 18" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,589.19	500.88
<i>For Class 52 Rating, Deduct</i>	-421.33	
<i>For Class 54 Rating, Add</i>	287.27	
<i>For Class 55 Rating, Add</i>	638.51	
40 05 19 00-1333 EA 18" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,714.10	502.97
<i>For Class 52 Rating, Deduct</i>	-434.72	
<i>For Class 54 Rating, Add</i>	296.40	
<i>For Class 55 Rating, Add</i>	658.80	
40 05 19 00-1334 EA 18" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,839.01	505.06
<i>For Class 52 Rating, Deduct</i>	-448.12	
<i>For Class 54 Rating, Add</i>	305.53	
<i>For Class 55 Rating, Add</i>	679.10	
40 05 19 00-1335 EA 18" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,963.94	507.13
<i>For Class 52 Rating, Deduct</i>	-461.51	
<i>For Class 54 Rating, Add</i>	314.67	
<i>For Class 55 Rating, Add</i>	699.40	
40 05 19 00-1336 EA 18" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,088.84	509.22
<i>For Class 52 Rating, Deduct</i>	-474.90	
<i>For Class 54 Rating, Add</i>	323.80	
<i>For Class 55 Rating, Add</i>	719.69	
40 05 19 00-1337 EA 18" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,213.76	511.30
<i>For Class 52 Rating, Deduct</i>	-488.30	
<i>For Class 54 Rating, Add</i>	332.93	
<i>For Class 55 Rating, Add</i>	739.99	
40 05 19 00-1338 EA 18" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,338.67	513.38
<i>For Class 52 Rating, Deduct</i>	-501.69	
<i>For Class 54 Rating, Add</i>	342.06	
<i>For Class 55 Rating, Add</i>	760.29	
40 05 19 00-1339 EA 18" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,463.58	515.48
<i>For Class 52 Rating, Deduct</i>	-515.08	
<i>For Class 54 Rating, Add</i>	351.19	
<i>For Class 55 Rating, Add</i>	780.58	
40 05 19 00-1340 EA 18" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,588.50	517.56
<i>For Class 52 Rating, Deduct</i>	-528.48	
<i>For Class 54 Rating, Add</i>	360.32	
<i>For Class 55 Rating, Add</i>	800.88	
40 05 19 00-1341 EA 18" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,713.42	519.65
<i>For Class 52 Rating, Deduct</i>	-541.87	
<i>For Class 54 Rating, Add</i>	369.46	
<i>For Class 55 Rating, Add</i>	821.18	
40 05 19 00-1342 EA 18" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,838.32	521.72
<i>For Class 52 Rating, Deduct</i>	-555.26	
<i>For Class 54 Rating, Add</i>	378.59	
<i>For Class 55 Rating, Add</i>	841.47	
40 05 19 00-1343 EA 18" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	5,963.24	523.81
<i>For Class 52 Rating, Deduct</i>	-568.65	
<i>For Class 54 Rating, Add</i>	387.72	
<i>For Class 55 Rating, Add</i>	861.77	
40 05 19 00-1344 EA 18" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,088.16	525.90
<i>For Class 52 Rating, Deduct</i>	-582.05	
<i>For Class 54 Rating, Add</i>	396.85	
<i>For Class 55 Rating, Add</i>	882.07	
40 05 19 00-1345 EA 18" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,213.06	527.97
<i>For Class 52 Rating, Deduct</i>	-595.44	
<i>For Class 54 Rating, Add</i>	405.98	
<i>For Class 55 Rating, Add</i>	902.36	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1346			20" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-1028)</small>		
40 05 19 00-1347	EA		20" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,849.18	514.65
			For Class 52 Rating, Deduct	-117.64	
			For Class 54 Rating, Add	80.21	
			For Class 55 Rating, Add	178.27	
40 05 19 00-1348	EA		20" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	1,992.37	516.73
			For Class 52 Rating, Deduct	-133.04	
			For Class 54 Rating, Add	90.71	
			For Class 55 Rating, Add	201.62	
40 05 19 00-1349	EA		20" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,135.54	518.81
			For Class 52 Rating, Deduct	-148.44	
			For Class 54 Rating, Add	101.21	
			For Class 55 Rating, Add	224.96	
40 05 19 00-1350	EA		20" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,278.72	520.89
			For Class 52 Rating, Deduct	-163.84	
			For Class 54 Rating, Add	111.71	
			For Class 55 Rating, Add	248.30	
40 05 19 00-1351	EA		20" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,421.89	522.98
			For Class 52 Rating, Deduct	-179.25	
			For Class 54 Rating, Add	122.21	
			For Class 55 Rating, Add	271.64	
40 05 19 00-1352	EA		20" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,565.07	525.06
			For Class 52 Rating, Deduct	-194.65	
			For Class 54 Rating, Add	132.71	
			For Class 55 Rating, Add	294.98	
40 05 19 00-1353	EA		20" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,708.25	527.14
			For Class 52 Rating, Deduct	-210.05	
			For Class 54 Rating, Add	143.22	
			For Class 55 Rating, Add	318.32	
40 05 19 00-1354	EA		20" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,851.43	529.23
			For Class 52 Rating, Deduct	-225.45	
			For Class 54 Rating, Add	153.72	
			For Class 55 Rating, Add	341.66	
40 05 19 00-1355	EA		20" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	2,994.60	531.31
			For Class 52 Rating, Deduct	-240.85	
			For Class 54 Rating, Add	164.22	
			For Class 55 Rating, Add	365.00	
40 05 19 00-1356	EA		20" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,137.78	533.39
			For Class 52 Rating, Deduct	-256.26	
			For Class 54 Rating, Add	174.72	
			For Class 55 Rating, Add	388.35	
40 05 19 00-1357	EA		20" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,280.95	535.47
			For Class 52 Rating, Deduct	-271.66	
			For Class 54 Rating, Add	185.22	
			For Class 55 Rating, Add	411.69	
40 05 19 00-1358	EA		20" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,424.13	537.56
			For Class 52 Rating, Deduct	-287.06	
			For Class 54 Rating, Add	195.72	
			For Class 55 Rating, Add	435.03	
40 05 19 00-1359	EA		20" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,567.31	539.64
			For Class 52 Rating, Deduct	-302.46	
			For Class 54 Rating, Add	206.23	
			For Class 55 Rating, Add	458.37	
40 05 19 00-1360	EA		20" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,710.48	541.72
			For Class 52 Rating, Deduct	-317.87	
			For Class 54 Rating, Add	216.73	
			For Class 55 Rating, Add	481.71	
40 05 19 00-1361	EA		20" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,853.67	543.81
			For Class 52 Rating, Deduct	-333.27	
			For Class 54 Rating, Add	227.23	
			For Class 55 Rating, Add	505.05	
40 05 19 00-1362	EA		20" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	3,996.85	545.89
			For Class 52 Rating, Deduct	-348.67	
			For Class 54 Rating, Add	237.73	
			For Class 55 Rating, Add	528.40	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1363 EA 20" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,140.03	547.97
<i>For Class 52 Rating, Deduct</i>	-364.07	
<i>For Class 54 Rating, Add</i>	248.23	
<i>For Class 55 Rating, Add</i>	551.74	
40 05 19 00-1364 EA 20" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,283.20	550.06
<i>For Class 52 Rating, Deduct</i>	-379.48	
<i>For Class 54 Rating, Add</i>	258.73	
<i>For Class 55 Rating, Add</i>	575.08	
40 05 19 00-1365 EA 20" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,426.38	552.14
<i>For Class 52 Rating, Deduct</i>	-394.88	
<i>For Class 54 Rating, Add</i>	269.24	
<i>For Class 55 Rating, Add</i>	598.42	
40 05 19 00-1366 EA 20" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,569.55	554.23
<i>For Class 52 Rating, Deduct</i>	-410.28	
<i>For Class 54 Rating, Add</i>	279.74	
<i>For Class 55 Rating, Add</i>	621.76	
40 05 19 00-1367 EA 20" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,712.74	556.30
<i>For Class 52 Rating, Deduct</i>	-425.68	
<i>For Class 54 Rating, Add</i>	290.24	
<i>For Class 55 Rating, Add</i>	645.10	
40 05 19 00-1368 EA 20" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,855.91	558.39
<i>For Class 52 Rating, Deduct</i>	-441.08	
<i>For Class 54 Rating, Add</i>	300.74	
<i>For Class 55 Rating, Add</i>	668.44	
40 05 19 00-1369 EA 20" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,999.09	560.48
<i>For Class 52 Rating, Deduct</i>	-456.49	
<i>For Class 54 Rating, Add</i>	311.24	
<i>For Class 55 Rating, Add</i>	691.79	
40 05 19 00-1370 EA 20" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,142.26	562.55
<i>For Class 52 Rating, Deduct</i>	-471.89	
<i>For Class 54 Rating, Add</i>	321.74	
<i>For Class 55 Rating, Add</i>	715.13	
40 05 19 00-1371 EA 20" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,285.45	564.65
<i>For Class 52 Rating, Deduct</i>	-487.29	
<i>For Class 54 Rating, Add</i>	332.24	
<i>For Class 55 Rating, Add</i>	738.47	
40 05 19 00-1372 EA 20" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,428.62	566.73
<i>For Class 52 Rating, Deduct</i>	-502.69	
<i>For Class 54 Rating, Add</i>	342.75	
<i>For Class 55 Rating, Add</i>	761.81	
40 05 19 00-1373 EA 20" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,571.80	568.82
<i>For Class 52 Rating, Deduct</i>	-518.10	
<i>For Class 54 Rating, Add</i>	353.25	
<i>For Class 55 Rating, Add</i>	785.15	
40 05 19 00-1374 EA 20" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,714.97	570.90
<i>For Class 52 Rating, Deduct</i>	-533.50	
<i>For Class 54 Rating, Add</i>	363.75	
<i>For Class 55 Rating, Add</i>	808.49	
40 05 19 00-1375 EA 20" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,858.15	572.98
<i>For Class 52 Rating, Deduct</i>	-548.90	
<i>For Class 54 Rating, Add</i>	374.25	
<i>For Class 55 Rating, Add</i>	831.83	
40 05 19 00-1376 EA 20" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,001.33	575.07
<i>For Class 52 Rating, Deduct</i>	-564.30	
<i>For Class 54 Rating, Add</i>	384.75	
<i>For Class 55 Rating, Add</i>	855.17	
40 05 19 00-1377 EA 20" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,144.51	577.14
<i>For Class 52 Rating, Deduct</i>	-579.70	
<i>For Class 54 Rating, Add</i>	395.25	
<i>For Class 55 Rating, Add</i>	878.52	
40 05 19 00-1378 EA 20" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,287.68	579.23
<i>For Class 52 Rating, Deduct</i>	-595.11	
<i>For Class 54 Rating, Add</i>	405.75	
<i>For Class 55 Rating, Add</i>	901.86	
40 05 19 00-1379 EA 20" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,430.85	581.32
<i>For Class 52 Rating, Deduct</i>	-610.51	
<i>For Class 54 Rating, Add</i>	416.26	
<i>For Class 55 Rating, Add</i>	925.20	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1380	EA		20" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,574.03	583.40
			<i>For Class 52 Rating, Deduct</i>	-625.91	
			<i>For Class 54 Rating, Add</i>	426.76	
			<i>For Class 55 Rating, Add</i>	948.54	
40 05 19 00-1381	EA		20" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,717.21	585.48
			<i>For Class 52 Rating, Deduct</i>	-641.31	
			<i>For Class 54 Rating, Add</i>	437.26	
			<i>For Class 55 Rating, Add</i>	971.88	
40 05 19 00-1382	EA		20" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,860.39	587.56
			<i>For Class 52 Rating, Deduct</i>	-656.72	
			<i>For Class 54 Rating, Add</i>	447.76	
			<i>For Class 55 Rating, Add</i>	995.22	
40 05 19 00-1383	EA		20" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,003.56	589.65
			<i>For Class 52 Rating, Deduct</i>	-672.12	
			<i>For Class 54 Rating, Add</i>	458.26	
			<i>For Class 55 Rating, Add</i>	1,018.56	
40 05 19 00-1384	EA		20" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,146.74	591.73
			<i>For Class 52 Rating, Deduct</i>	-687.52	
			<i>For Class 54 Rating, Add</i>	468.76	
			<i>For Class 55 Rating, Add</i>	1,041.91	
40 05 19 00-1385			24" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-1028)</small>		
40 05 19 00-1386	EA		24" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,257.09	608.39
			<i>For Class 52 Rating, Deduct</i>	-146.88	
			<i>For Class 54 Rating, Add</i>	100.15	
			<i>For Class 55 Rating, Add</i>	222.59	
40 05 19 00-1387	EA		24" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,433.74	610.48
			<i>For Class 52 Rating, Deduct</i>	-165.96	
			<i>For Class 54 Rating, Add</i>	113.16	
			<i>For Class 55 Rating, Add</i>	251.51	
40 05 19 00-1388	EA		24" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,610.40	612.57
			<i>For Class 52 Rating, Deduct</i>	-185.05	
			<i>For Class 54 Rating, Add</i>	126.17	
			<i>For Class 55 Rating, Add</i>	280.43	
40 05 19 00-1389	EA		24" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,787.07	614.65
			<i>For Class 52 Rating, Deduct</i>	-204.14	
			<i>For Class 54 Rating, Add</i>	139.18	
			<i>For Class 55 Rating, Add</i>	309.36	
40 05 19 00-1390	EA		24" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	2,963.73	616.74
			<i>For Class 52 Rating, Deduct</i>	-223.22	
			<i>For Class 54 Rating, Add</i>	152.20	
			<i>For Class 55 Rating, Add</i>	338.28	
40 05 19 00-1391	EA		24" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,140.38	618.82
			<i>For Class 52 Rating, Deduct</i>	-242.31	
			<i>For Class 54 Rating, Add</i>	165.21	
			<i>For Class 55 Rating, Add</i>	367.20	
40 05 19 00-1392	EA		24" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,317.04	620.91
			<i>For Class 52 Rating, Deduct</i>	-261.39	
			<i>For Class 54 Rating, Add</i>	178.22	
			<i>For Class 55 Rating, Add</i>	396.13	
40 05 19 00-1393	EA		24" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,493.71	622.98
			<i>For Class 52 Rating, Deduct</i>	-280.48	
			<i>For Class 54 Rating, Add</i>	191.23	
			<i>For Class 55 Rating, Add</i>	425.05	
40 05 19 00-1394	EA		24" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,670.36	625.07
			<i>For Class 52 Rating, Deduct</i>	-299.56	
			<i>For Class 54 Rating, Add</i>	204.25	
			<i>For Class 55 Rating, Add</i>	453.97	
40 05 19 00-1395	EA		24" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,847.03	627.16
			<i>For Class 52 Rating, Deduct</i>	-318.65	
			<i>For Class 54 Rating, Add</i>	217.26	
			<i>For Class 55 Rating, Add</i>	482.90	
40 05 19 00-1396	EA		24" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,023.68	629.23
			<i>For Class 52 Rating, Deduct</i>	-337.73	
			<i>For Class 54 Rating, Add</i>	230.27	
			<i>For Class 55 Rating, Add</i>	511.82	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1397 EA 24" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,200.34	631.32
<i>For Class 52 Rating, Deduct</i>	-356.82	
<i>For Class 54 Rating, Add</i>	243.29	
<i>For Class 55 Rating, Add</i>	540.74	
40 05 19 00-1398 EA 24" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,377.01	633.40
<i>For Class 52 Rating, Deduct</i>	-375.90	
<i>For Class 54 Rating, Add</i>	256.30	
<i>For Class 55 Rating, Add</i>	569.67	
40 05 19 00-1399 EA 24" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,553.67	635.49
<i>For Class 52 Rating, Deduct</i>	-394.99	
<i>For Class 54 Rating, Add</i>	269.31	
<i>For Class 55 Rating, Add</i>	598.59	
40 05 19 00-1400 EA 24" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,730.32	637.57
<i>For Class 52 Rating, Deduct</i>	-414.07	
<i>For Class 54 Rating, Add</i>	282.32	
<i>For Class 55 Rating, Add</i>	627.51	
40 05 19 00-1401 EA 24" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,906.99	639.65
<i>For Class 52 Rating, Deduct</i>	-433.16	
<i>For Class 54 Rating, Add</i>	295.34	
<i>For Class 55 Rating, Add</i>	656.43	
40 05 19 00-1402 EA 24" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,083.65	641.74
<i>For Class 52 Rating, Deduct</i>	-452.25	
<i>For Class 54 Rating, Add</i>	308.35	
<i>For Class 55 Rating, Add</i>	685.36	
40 05 19 00-1403 EA 24" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,260.31	643.81
<i>For Class 52 Rating, Deduct</i>	-471.33	
<i>For Class 54 Rating, Add</i>	321.36	
<i>For Class 55 Rating, Add</i>	714.28	
40 05 19 00-1404 EA 24" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,436.97	645.90
<i>For Class 52 Rating, Deduct</i>	-490.42	
<i>For Class 54 Rating, Add</i>	334.37	
<i>For Class 55 Rating, Add</i>	743.20	
40 05 19 00-1405 EA 24" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,613.63	647.99
<i>For Class 52 Rating, Deduct</i>	-509.50	
<i>For Class 54 Rating, Add</i>	347.39	
<i>For Class 55 Rating, Add</i>	772.13	
40 05 19 00-1406 EA 24" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,790.29	650.07
<i>For Class 52 Rating, Deduct</i>	-528.59	
<i>For Class 54 Rating, Add</i>	360.40	
<i>For Class 55 Rating, Add</i>	801.05	
40 05 19 00-1407 EA 24" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,966.96	652.15
<i>For Class 52 Rating, Deduct</i>	-547.67	
<i>For Class 54 Rating, Add</i>	373.41	
<i>For Class 55 Rating, Add</i>	829.97	
40 05 19 00-1408 EA 24" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,143.61	654.23
<i>For Class 52 Rating, Deduct</i>	-566.76	
<i>For Class 54 Rating, Add</i>	386.43	
<i>For Class 55 Rating, Add</i>	858.90	
40 05 19 00-1409 EA 24" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,320.28	656.32
<i>For Class 52 Rating, Deduct</i>	-585.84	
<i>For Class 54 Rating, Add</i>	399.44	
<i>For Class 55 Rating, Add</i>	887.82	
40 05 19 00-1410 EA 24" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,496.93	658.40
<i>For Class 52 Rating, Deduct</i>	-604.93	
<i>For Class 54 Rating, Add</i>	412.45	
<i>For Class 55 Rating, Add</i>	916.74	
40 05 19 00-1411 EA 24" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,673.58	660.48
<i>For Class 52 Rating, Deduct</i>	-624.01	
<i>For Class 54 Rating, Add</i>	425.46	
<i>For Class 55 Rating, Add</i>	945.66	
40 05 19 00-1412 EA 24" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,850.26	662.58
<i>For Class 52 Rating, Deduct</i>	-643.10	
<i>For Class 54 Rating, Add</i>	438.48	
<i>For Class 55 Rating, Add</i>	974.59	
40 05 19 00-1413 EA 24" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,026.91	664.66
<i>For Class 52 Rating, Deduct</i>	-662.18	
<i>For Class 54 Rating, Add</i>	451.49	
<i>For Class 55 Rating, Add</i>	1,003.51	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1414	EA		24" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,203.57	666.74
			<i>For Class 52 Rating, Deduct</i>	-681.27	
			<i>For Class 54 Rating, Add</i>	464.50	
			<i>For Class 55 Rating, Add</i>	1,032.43	
40 05 19 00-1415	EA		24" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,433.90	704.24
			<i>For Class 52 Rating, Deduct</i>	-700.36	
			<i>For Class 54 Rating, Add</i>	477.52	
			<i>For Class 55 Rating, Add</i>	1,061.36	
40 05 19 00-1416	EA		24" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,610.56	706.32
			<i>For Class 52 Rating, Deduct</i>	-719.44	
			<i>For Class 54 Rating, Add</i>	490.53	
			<i>For Class 55 Rating, Add</i>	1,090.28	
40 05 19 00-1417	EA		24" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,787.21	708.41
			<i>For Class 52 Rating, Deduct</i>	-738.53	
			<i>For Class 54 Rating, Add</i>	503.54	
			<i>For Class 55 Rating, Add</i>	1,119.20	
40 05 19 00-1418	EA		24" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,963.89	710.50
			<i>For Class 52 Rating, Deduct</i>	-757.61	
			<i>For Class 54 Rating, Add</i>	516.55	
			<i>For Class 55 Rating, Add</i>	1,148.13	
40 05 19 00-1419	EA		24" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,140.54	712.58
			<i>For Class 52 Rating, Deduct</i>	-776.70	
			<i>For Class 54 Rating, Add</i>	529.57	
			<i>For Class 55 Rating, Add</i>	1,177.05	
40 05 19 00-1420	EA		24" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,317.20	714.67
			<i>For Class 52 Rating, Deduct</i>	-795.78	
			<i>For Class 54 Rating, Add</i>	542.58	
			<i>For Class 55 Rating, Add</i>	1,205.97	
40 05 19 00-1421	EA		24" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,493.86	716.75
			<i>For Class 52 Rating, Deduct</i>	-814.87	
			<i>For Class 54 Rating, Add</i>	555.59	
			<i>For Class 55 Rating, Add</i>	1,234.90	
40 05 19 00-1422	EA		24" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,670.53	718.83
			<i>For Class 52 Rating, Deduct</i>	-833.95	
			<i>For Class 54 Rating, Add</i>	568.60	
			<i>For Class 55 Rating, Add</i>	1,263.82	
40 05 19 00-1423	EA		24" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,847.18	720.91
			<i>For Class 52 Rating, Deduct</i>	-853.04	
			<i>For Class 54 Rating, Add</i>	581.62	
			<i>For Class 55 Rating, Add</i>	1,292.74	
40 05 19 00-1424			30" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-1028)</small>		
40 05 19 00-1425	EA		30" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,411.10	858.43
			<i>For Class 52 Rating, Deduct</i>	-232.15	
			<i>For Class 54 Rating, Add</i>	158.28	
			<i>For Class 55 Rating, Add</i>	351.81	
40 05 19 00-1426	EA		30" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,664.87	860.51
			<i>For Class 52 Rating, Deduct</i>	-259.72	
			<i>For Class 54 Rating, Add</i>	177.08	
			<i>For Class 55 Rating, Add</i>	393.59	
40 05 19 00-1427	EA		30" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	3,918.64	862.60
			<i>For Class 52 Rating, Deduct</i>	-287.28	
			<i>For Class 54 Rating, Add</i>	195.88	
			<i>For Class 55 Rating, Add</i>	435.37	
40 05 19 00-1428	EA		30" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,172.42	864.68
			<i>For Class 52 Rating, Deduct</i>	-314.85	
			<i>For Class 54 Rating, Add</i>	214.67	
			<i>For Class 55 Rating, Add</i>	477.15	
40 05 19 00-1429	EA		30" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,426.20	866.77
			<i>For Class 52 Rating, Deduct</i>	-342.42	
			<i>For Class 54 Rating, Add</i>	233.47	
			<i>For Class 55 Rating, Add</i>	518.92	
40 05 19 00-1430	EA		30" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,679.96	868.84
			<i>For Class 52 Rating, Deduct</i>	-369.99	
			<i>For Class 54 Rating, Add</i>	252.26	
			<i>For Class 55 Rating, Add</i>	560.70	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1431 EA 30" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,933.73	870.93
<i>For Class 52 Rating, Deduct</i>	-397.56	
<i>For Class 54 Rating, Add</i>	271.06	
<i>For Class 55 Rating, Add</i>	602.48	
40 05 19 00-1432 EA 30" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,187.50	873.02
<i>For Class 52 Rating, Deduct</i>	-425.12	
<i>For Class 54 Rating, Add</i>	289.86	
<i>For Class 55 Rating, Add</i>	644.26	
40 05 19 00-1433 EA 30" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,441.28	875.09
<i>For Class 52 Rating, Deduct</i>	-452.69	
<i>For Class 54 Rating, Add</i>	308.65	
<i>For Class 55 Rating, Add</i>	686.03	
40 05 19 00-1434 EA 30" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,695.06	877.18
<i>For Class 52 Rating, Deduct</i>	-480.26	
<i>For Class 54 Rating, Add</i>	327.45	
<i>For Class 55 Rating, Add</i>	727.81	
40 05 19 00-1435 EA 30" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,948.82	879.26
<i>For Class 52 Rating, Deduct</i>	-507.83	
<i>For Class 54 Rating, Add</i>	346.25	
<i>For Class 55 Rating, Add</i>	769.59	
40 05 19 00-1436 EA 30" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,202.60	881.35
<i>For Class 52 Rating, Deduct</i>	-535.40	
<i>For Class 54 Rating, Add</i>	365.04	
<i>For Class 55 Rating, Add</i>	811.37	
40 05 19 00-1437 EA 30" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,456.37	883.43
<i>For Class 52 Rating, Deduct</i>	-562.96	
<i>For Class 54 Rating, Add</i>	383.84	
<i>For Class 55 Rating, Add</i>	853.14	
40 05 19 00-1438 EA 30" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,710.15	885.51
<i>For Class 52 Rating, Deduct</i>	-590.53	
<i>For Class 54 Rating, Add</i>	402.63	
<i>For Class 55 Rating, Add</i>	894.92	
40 05 19 00-1439 EA 30" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,963.92	887.60
<i>For Class 52 Rating, Deduct</i>	-618.10	
<i>For Class 54 Rating, Add</i>	421.43	
<i>For Class 55 Rating, Add</i>	936.70	
40 05 19 00-1440 EA 30" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,217.69	889.67
<i>For Class 52 Rating, Deduct</i>	-645.67	
<i>For Class 54 Rating, Add</i>	440.23	
<i>For Class 55 Rating, Add</i>	978.48	
40 05 19 00-1441 EA 30" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,471.46	891.76
<i>For Class 52 Rating, Deduct</i>	-673.23	
<i>For Class 54 Rating, Add</i>	459.02	
<i>For Class 55 Rating, Add</i>	1,020.26	
40 05 19 00-1442 EA 30" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,725.24	893.85
<i>For Class 52 Rating, Deduct</i>	-700.80	
<i>For Class 54 Rating, Add</i>	477.82	
<i>For Class 55 Rating, Add</i>	1,062.03	
40 05 19 00-1443 EA 30" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,979.01	895.93
<i>For Class 52 Rating, Deduct</i>	-728.37	
<i>For Class 54 Rating, Add</i>	496.62	
<i>For Class 55 Rating, Add</i>	1,103.81	
40 05 19 00-1444 EA 30" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,232.79	898.01
<i>For Class 52 Rating, Deduct</i>	-755.94	
<i>For Class 54 Rating, Add</i>	515.41	
<i>For Class 55 Rating, Add</i>	1,145.59	
40 05 19 00-1445 EA 30" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,486.55	900.09
<i>For Class 52 Rating, Deduct</i>	-783.50	
<i>For Class 54 Rating, Add</i>	534.21	
<i>For Class 55 Rating, Add</i>	1,187.37	
40 05 19 00-1446 EA 30" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,740.33	902.18
<i>For Class 52 Rating, Deduct</i>	-811.07	
<i>For Class 54 Rating, Add</i>	553.00	
<i>For Class 55 Rating, Add</i>	1,229.14	
40 05 19 00-1447 EA 30" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,994.10	904.26
<i>For Class 52 Rating, Deduct</i>	-838.64	
<i>For Class 54 Rating, Add</i>	571.80	
<i>For Class 55 Rating, Add</i>	1,270.92	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1448	EA		30" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,247.88	906.34
			<i>For Class 52 Rating, Deduct</i>	-866.21	
			<i>For Class 54 Rating, Add</i>	590.60	
			<i>For Class 55 Rating, Add</i>	1,312.70	
40 05 19 00-1449	EA		30" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,501.65	908.44
			<i>For Class 52 Rating, Deduct</i>	-893.78	
			<i>For Class 54 Rating, Add</i>	609.39	
			<i>For Class 55 Rating, Add</i>	1,354.48	
40 05 19 00-1450	EA		30" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,755.41	910.52
			<i>For Class 52 Rating, Deduct</i>	-921.34	
			<i>For Class 54 Rating, Add</i>	628.19	
			<i>For Class 55 Rating, Add</i>	1,396.25	
40 05 19 00-1451	EA		30" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,009.20	912.60
			<i>For Class 52 Rating, Deduct</i>	-948.91	
			<i>For Class 54 Rating, Add</i>	646.99	
			<i>For Class 55 Rating, Add</i>	1,438.03	
40 05 19 00-1452	EA		30" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,262.97	914.68
			<i>For Class 52 Rating, Deduct</i>	-976.48	
			<i>For Class 54 Rating, Add</i>	665.78	
			<i>For Class 55 Rating, Add</i>	1,479.81	
40 05 19 00-1453	EA		30" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,516.74	916.77
			<i>For Class 52 Rating, Deduct</i>	-1,004.05	
			<i>For Class 54 Rating, Add</i>	684.58	
			<i>For Class 55 Rating, Add</i>	1,521.59	
40 05 19 00-1454	EA		30" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,770.51	918.86
			<i>For Class 52 Rating, Deduct</i>	-1,031.62	
			<i>For Class 54 Rating, Add</i>	703.37	
			<i>For Class 55 Rating, Add</i>	1,563.37	
40 05 19 00-1455	EA		30" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,024.28	920.93
			<i>For Class 52 Rating, Deduct</i>	-1,059.18	
			<i>For Class 54 Rating, Add</i>	722.17	
			<i>For Class 55 Rating, Add</i>	1,605.14	
40 05 19 00-1456	EA		30" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,278.06	923.02
			<i>For Class 52 Rating, Deduct</i>	-1,086.75	
			<i>For Class 54 Rating, Add</i>	740.97	
			<i>For Class 55 Rating, Add</i>	1,646.92	
40 05 19 00-1457	EA		30" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,531.84	925.10
			<i>For Class 52 Rating, Deduct</i>	-1,114.32	
			<i>For Class 54 Rating, Add</i>	759.76	
			<i>For Class 55 Rating, Add</i>	1,688.70	
40 05 19 00-1458	EA		30" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,785.60	927.18
			<i>For Class 52 Rating, Deduct</i>	-1,141.89	
			<i>For Class 54 Rating, Add</i>	778.56	
			<i>For Class 55 Rating, Add</i>	1,730.48	
40 05 19 00-1459	EA		30" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,039.38	929.27
			<i>For Class 52 Rating, Deduct</i>	-1,169.45	
			<i>For Class 54 Rating, Add</i>	797.36	
			<i>For Class 55 Rating, Add</i>	1,772.25	
40 05 19 00-1460	EA		30" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,293.15	931.35
			<i>For Class 52 Rating, Deduct</i>	-1,197.02	
			<i>For Class 54 Rating, Add</i>	816.15	
			<i>For Class 55 Rating, Add</i>	1,814.03	
40 05 19 00-1461	EA		30" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,546.93	933.44
			<i>For Class 52 Rating, Deduct</i>	-1,224.59	
			<i>For Class 54 Rating, Add</i>	834.95	
			<i>For Class 55 Rating, Add</i>	1,855.81	
40 05 19 00-1462	EA		30" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,800.70	935.51
			<i>For Class 52 Rating, Deduct</i>	-1,252.16	
			<i>For Class 54 Rating, Add</i>	853.74	
			<i>For Class 55 Rating, Add</i>	1,897.59	
40 05 19 00-1463			36" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe <small>(40 05 19 00-1028)</small>		
40 05 19 00-1464	EA		36" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	4,653.27	1,087.62
			<i>For Class 52 Rating, Deduct</i>	-330.59	
			<i>For Class 54 Rating, Add</i>	225.40	
			<i>For Class 55 Rating, Add</i>	500.99	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1465 EA 36" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	4,997.34	1,089.70
<i>For Class 52 Rating, Deduct</i>	-368.09	
<i>For Class 54 Rating, Add</i>	250.97	
<i>For Class 55 Rating, Add</i>	557.82	
40 05 19 00-1466 EA 36" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,341.42	1,091.78
<i>For Class 52 Rating, Deduct</i>	-405.59	
<i>For Class 54 Rating, Add</i>	276.54	
<i>For Class 55 Rating, Add</i>	614.66	
40 05 19 00-1467 EA 36" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	5,685.49	1,093.87
<i>For Class 52 Rating, Deduct</i>	-443.09	
<i>For Class 54 Rating, Add</i>	302.11	
<i>For Class 55 Rating, Add</i>	671.49	
40 05 19 00-1468 EA 36" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,029.58	1,095.95
<i>For Class 52 Rating, Deduct</i>	-480.59	
<i>For Class 54 Rating, Add</i>	327.68	
<i>For Class 55 Rating, Add</i>	728.32	
40 05 19 00-1469 EA 36" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,373.65	1,098.03
<i>For Class 52 Rating, Deduct</i>	-518.10	
<i>For Class 54 Rating, Add</i>	353.25	
<i>For Class 55 Rating, Add</i>	785.15	
40 05 19 00-1470 EA 36" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	6,717.73	1,100.11
<i>For Class 52 Rating, Deduct</i>	-555.60	
<i>For Class 54 Rating, Add</i>	378.82	
<i>For Class 55 Rating, Add</i>	841.98	
40 05 19 00-1471 EA 36" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,061.80	1,102.20
<i>For Class 52 Rating, Deduct</i>	-593.10	
<i>For Class 54 Rating, Add</i>	404.39	
<i>For Class 55 Rating, Add</i>	898.81	
40 05 19 00-1472 EA 36" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,405.88	1,104.29
<i>For Class 52 Rating, Deduct</i>	-630.60	
<i>For Class 54 Rating, Add</i>	429.95	
<i>For Class 55 Rating, Add</i>	955.64	
40 05 19 00-1473 EA 36" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	7,749.96	1,106.37
<i>For Class 52 Rating, Deduct</i>	-668.10	
<i>For Class 54 Rating, Add</i>	455.52	
<i>For Class 55 Rating, Add</i>	1,012.48	
40 05 19 00-1474 EA 36" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,094.03	1,108.46
<i>For Class 52 Rating, Deduct</i>	-705.60	
<i>For Class 54 Rating, Add</i>	481.09	
<i>For Class 55 Rating, Add</i>	1,069.31	
40 05 19 00-1475 EA 36" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,438.10	1,110.54
<i>For Class 52 Rating, Deduct</i>	-743.10	
<i>For Class 54 Rating, Add</i>	506.66	
<i>For Class 55 Rating, Add</i>	1,126.14	
40 05 19 00-1476 EA 36" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	8,782.18	1,112.62
<i>For Class 52 Rating, Deduct</i>	-780.60	
<i>For Class 54 Rating, Add</i>	532.23	
<i>For Class 55 Rating, Add</i>	1,182.97	
40 05 19 00-1477 EA 36" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	9,126.26	1,114.70
<i>For Class 52 Rating, Deduct</i>	-818.10	
<i>For Class 54 Rating, Add</i>	557.80	
<i>For Class 55 Rating, Add</i>	1,239.80	
40 05 19 00-1478 EA 36" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	9,470.33	1,116.79
<i>For Class 52 Rating, Deduct</i>	-855.61	
<i>For Class 54 Rating, Add</i>	583.37	
<i>For Class 55 Rating, Add</i>	1,296.63	
40 05 19 00-1479 EA 36" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	9,814.41	1,118.88
<i>For Class 52 Rating, Deduct</i>	-893.11	
<i>For Class 54 Rating, Add</i>	608.94	
<i>For Class 55 Rating, Add</i>	1,353.46	
40 05 19 00-1480 EA 36" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	10,158.48	1,120.95
<i>For Class 52 Rating, Deduct</i>	-930.61	
<i>For Class 54 Rating, Add</i>	634.51	
<i>For Class 55 Rating, Add</i>	1,410.29	
40 05 19 00-1481 EA 36" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe.....	10,502.56	1,123.04
<i>For Class 52 Rating, Deduct</i>	-968.11	
<i>For Class 54 Rating, Add</i>	660.07	
<i>For Class 55 Rating, Add</i>	1,467.13	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1482	EA		36" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,846.64	1,125.12
			<i>For Class 52 Rating, Deduct</i>	-1,005.61	
			<i>For Class 54 Rating, Add</i>	685.64	
			<i>For Class 55 Rating, Add</i>	1,523.96	
40 05 19 00-1483	EA		36" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,190.72	1,127.21
			<i>For Class 52 Rating, Deduct</i>	-1,043.11	
			<i>For Class 54 Rating, Add</i>	711.21	
			<i>For Class 55 Rating, Add</i>	1,580.79	
40 05 19 00-1484	EA		36" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,534.78	1,129.29
			<i>For Class 52 Rating, Deduct</i>	-1,080.61	
			<i>For Class 54 Rating, Add</i>	736.78	
			<i>For Class 55 Rating, Add</i>	1,637.62	
40 05 19 00-1485	EA		36" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,878.86	1,131.37
			<i>For Class 52 Rating, Deduct</i>	-1,118.11	
			<i>For Class 54 Rating, Add</i>	762.35	
			<i>For Class 55 Rating, Add</i>	1,694.45	
40 05 19 00-1486	EA		36" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,222.93	1,133.46
			<i>For Class 52 Rating, Deduct</i>	-1,155.61	
			<i>For Class 54 Rating, Add</i>	787.92	
			<i>For Class 55 Rating, Add</i>	1,751.28	
40 05 19 00-1487	EA		36" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,567.02	1,135.53
			<i>For Class 52 Rating, Deduct</i>	-1,193.12	
			<i>For Class 54 Rating, Add</i>	813.49	
			<i>For Class 55 Rating, Add</i>	1,808.11	
40 05 19 00-1488	EA		36" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,911.09	1,137.62
			<i>For Class 52 Rating, Deduct</i>	-1,230.62	
			<i>For Class 54 Rating, Add</i>	839.06	
			<i>For Class 55 Rating, Add</i>	1,864.94	
40 05 19 00-1489	EA		36" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,255.17	1,139.71
			<i>For Class 52 Rating, Deduct</i>	-1,268.12	
			<i>For Class 54 Rating, Add</i>	864.63	
			<i>For Class 55 Rating, Add</i>	1,921.77	
40 05 19 00-1490	EA		36" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,599.24	1,141.79
			<i>For Class 52 Rating, Deduct</i>	-1,305.62	
			<i>For Class 54 Rating, Add</i>	890.19	
			<i>For Class 55 Rating, Add</i>	1,978.61	
40 05 19 00-1491	EA		36" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,943.33	1,143.87
			<i>For Class 52 Rating, Deduct</i>	-1,343.12	
			<i>For Class 54 Rating, Add</i>	915.76	
			<i>For Class 55 Rating, Add</i>	2,035.44	
40 05 19 00-1492	EA		36" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,287.40	1,145.95
			<i>For Class 52 Rating, Deduct</i>	-1,380.62	
			<i>For Class 54 Rating, Add</i>	941.33	
			<i>For Class 55 Rating, Add</i>	2,092.27	
40 05 19 00-1493	EA		36" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,631.48	1,148.04
			<i>For Class 52 Rating, Deduct</i>	-1,418.12	
			<i>For Class 54 Rating, Add</i>	966.90	
			<i>For Class 55 Rating, Add</i>	2,149.10	
40 05 19 00-1494	EA		36" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,975.54	1,150.12
			<i>For Class 52 Rating, Deduct</i>	-1,455.62	
			<i>For Class 54 Rating, Add</i>	992.47	
			<i>For Class 55 Rating, Add</i>	2,205.93	
40 05 19 00-1495	EA		36" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,319.62	1,152.21
			<i>For Class 52 Rating, Deduct</i>	-1,493.12	
			<i>For Class 54 Rating, Add</i>	1,018.04	
			<i>For Class 55 Rating, Add</i>	2,262.76	
40 05 19 00-1496	EA		36" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,663.70	1,154.30
			<i>For Class 52 Rating, Deduct</i>	-1,530.62	
			<i>For Class 54 Rating, Add</i>	1,043.61	
			<i>For Class 55 Rating, Add</i>	2,319.59	
40 05 19 00-1497	EA		36" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,007.78	1,156.38
			<i>For Class 52 Rating, Deduct</i>	-1,568.13	
			<i>For Class 54 Rating, Add</i>	1,069.18	
			<i>For Class 55 Rating, Add</i>	2,376.42	
40 05 19 00-1498	EA		36" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,351.85	1,158.46
			<i>For Class 52 Rating, Deduct</i>	-1,605.63	
			<i>For Class 54 Rating, Add</i>	1,094.75	
			<i>For Class 55 Rating, Add</i>	2,433.25	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1499 EA 36" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,695.92	1,160.54
<i>For Class 52 Rating, Deduct</i>	-1,643.13	
<i>For Class 54 Rating, Add</i>	1,120.31	
<i>For Class 55 Rating, Add</i>	2,490.09	
40 05 19 00-1500 EA 36" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,040.00	1,162.63
<i>For Class 52 Rating, Deduct</i>	-1,680.63	
<i>For Class 54 Rating, Add</i>	1,145.88	
<i>For Class 55 Rating, Add</i>	2,546.92	
40 05 19 00-1501 EA 36" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,384.08	1,164.71
<i>For Class 52 Rating, Deduct</i>	-1,718.13	
<i>For Class 54 Rating, Add</i>	1,171.45	
<i>For Class 55 Rating, Add</i>	2,603.75	
40 05 19 00-1502 42" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		
<small>(40 05 19 00-1028)</small>		
40 05 19 00-1503 EA 42" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,106.38	1,370.98
<i>For Class 52 Rating, Deduct</i>	-443.21	
<i>For Class 54 Rating, Add</i>	302.19	
<i>For Class 55 Rating, Add</i>	671.66	
40 05 19 00-1504 EA 42" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	6,618.88	1,373.06
<i>For Class 52 Rating, Deduct</i>	-499.23	
<i>For Class 54 Rating, Add</i>	340.39	
<i>For Class 55 Rating, Add</i>	756.56	
40 05 19 00-1505 EA 42" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,125.31	1,375.15
<i>For Class 52 Rating, Deduct</i>	-554.59	
<i>For Class 54 Rating, Add</i>	378.13	
<i>For Class 55 Rating, Add</i>	840.46	
40 05 19 00-1506 EA 42" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,636.80	1,377.23
<i>For Class 52 Rating, Deduct</i>	-610.51	
<i>For Class 54 Rating, Add</i>	416.26	
<i>For Class 55 Rating, Add</i>	925.20	
40 05 19 00-1507 EA 42" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,143.21	1,379.32
<i>For Class 52 Rating, Deduct</i>	-665.87	
<i>For Class 54 Rating, Add</i>	454.00	
<i>For Class 55 Rating, Add</i>	1,009.09	
40 05 19 00-1508 EA 42" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,655.72	1,381.39
<i>For Class 52 Rating, Deduct</i>	-721.90	
<i>For Class 54 Rating, Add</i>	492.20	
<i>For Class 55 Rating, Add</i>	1,094.00	
40 05 19 00-1509 EA 42" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,161.12	1,383.48
<i>For Class 52 Rating, Deduct</i>	-777.14	
<i>For Class 54 Rating, Add</i>	529.87	
<i>For Class 55 Rating, Add</i>	1,177.73	
40 05 19 00-1510 EA 42" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,673.64	1,385.57
<i>For Class 52 Rating, Deduct</i>	-833.17	
<i>For Class 54 Rating, Add</i>	568.07	
<i>For Class 55 Rating, Add</i>	1,262.63	
40 05 19 00-1511 EA 42" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,180.05	1,387.65
<i>For Class 52 Rating, Deduct</i>	-888.53	
<i>For Class 54 Rating, Add</i>	605.82	
<i>For Class 55 Rating, Add</i>	1,346.53	
40 05 19 00-1512 EA 42" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,691.54	1,389.73
<i>For Class 52 Rating, Deduct</i>	-944.45	
<i>For Class 54 Rating, Add</i>	643.94	
<i>For Class 55 Rating, Add</i>	1,431.27	
40 05 19 00-1513 EA 42" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,197.96	1,391.81
<i>For Class 52 Rating, Deduct</i>	-999.81	
<i>For Class 54 Rating, Add</i>	681.69	
<i>For Class 55 Rating, Add</i>	1,515.16	
40 05 19 00-1514 EA 42" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,709.45	1,393.90
<i>For Class 52 Rating, Deduct</i>	-1,055.72	
<i>For Class 54 Rating, Add</i>	719.81	
<i>For Class 55 Rating, Add</i>	1,599.90	
40 05 19 00-1515 EA 42" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,215.87	1,395.98
<i>For Class 52 Rating, Deduct</i>	-1,111.08	
<i>For Class 54 Rating, Add</i>	757.56	
<i>For Class 55 Rating, Add</i>	1,683.79	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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40 05 19 00-1516	EA		42" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,723.31	1,398.07
			<i>For Class 52 Rating, Deduct</i>	-1,166.55	
			<i>For Class 54 Rating, Add</i>	795.38	
			<i>For Class 55 Rating, Add</i>	1,767.86	
40 05 19 00-1517	EA		42" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,233.78	1,400.16
			<i>For Class 52 Rating, Deduct</i>	-1,222.36	
			<i>For Class 54 Rating, Add</i>	833.43	
			<i>For Class 55 Rating, Add</i>	1,852.43	
40 05 19 00-1518	EA		42" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,740.20	1,402.24
			<i>For Class 52 Rating, Deduct</i>	-1,277.72	
			<i>For Class 54 Rating, Add</i>	871.17	
			<i>For Class 55 Rating, Add</i>	1,936.32	
40 05 19 00-1519	EA		42" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,252.71	1,404.32
			<i>For Class 52 Rating, Deduct</i>	-1,333.74	
			<i>For Class 54 Rating, Add</i>	909.37	
			<i>For Class 55 Rating, Add</i>	2,021.23	
40 05 19 00-1520	EA		42" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,759.12	1,406.41
			<i>For Class 52 Rating, Deduct</i>	-1,389.10	
			<i>For Class 54 Rating, Add</i>	947.12	
			<i>For Class 55 Rating, Add</i>	2,105.12	
40 05 19 00-1521	EA		42" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,270.61	1,408.49
			<i>For Class 52 Rating, Deduct</i>	-1,445.02	
			<i>For Class 54 Rating, Add</i>	985.24	
			<i>For Class 55 Rating, Add</i>	2,189.86	
40 05 19 00-1522	EA		42" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,777.03	1,410.57
			<i>For Class 52 Rating, Deduct</i>	-1,500.38	
			<i>For Class 54 Rating, Add</i>	1,022.99	
			<i>For Class 55 Rating, Add</i>	2,273.76	
40 05 19 00-1523	EA		42" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,289.53	1,412.65
			<i>For Class 52 Rating, Deduct</i>	-1,556.41	
			<i>For Class 54 Rating, Add</i>	1,061.19	
			<i>For Class 55 Rating, Add</i>	2,358.66	
40 05 19 00-1524	EA		42" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,795.96	1,414.74
			<i>For Class 52 Rating, Deduct</i>	-1,611.77	
			<i>For Class 54 Rating, Add</i>	1,098.93	
			<i>For Class 55 Rating, Add</i>	2,442.56	
40 05 19 00-1525	EA		42" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,307.45	1,416.82
			<i>For Class 52 Rating, Deduct</i>	-1,667.68	
			<i>For Class 54 Rating, Add</i>	1,137.06	
			<i>For Class 55 Rating, Add</i>	2,527.30	
40 05 19 00-1526	EA		42" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,813.86	1,418.90
			<i>For Class 52 Rating, Deduct</i>	-1,723.04	
			<i>For Class 54 Rating, Add</i>	1,174.80	
			<i>For Class 55 Rating, Add</i>	2,611.19	
40 05 19 00-1527	EA		42" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,326.37	1,420.99
			<i>For Class 52 Rating, Deduct</i>	-1,779.07	
			<i>For Class 54 Rating, Add</i>	1,213.00	
			<i>For Class 55 Rating, Add</i>	2,696.10	
40 05 19 00-1528	EA		42" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,832.78	1,423.07
			<i>For Class 52 Rating, Deduct</i>	-1,834.43	
			<i>For Class 54 Rating, Add</i>	1,250.75	
			<i>For Class 55 Rating, Add</i>	2,779.99	
40 05 19 00-1529	EA		42" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,343.27	1,425.15
			<i>For Class 52 Rating, Deduct</i>	-1,890.23	
			<i>For Class 54 Rating, Add</i>	1,288.80	
			<i>For Class 55 Rating, Add</i>	2,864.56	
40 05 19 00-1530	EA		42" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,850.70	1,427.23
			<i>For Class 52 Rating, Deduct</i>	-1,945.70	
			<i>For Class 54 Rating, Add</i>	1,326.62	
			<i>For Class 55 Rating, Add</i>	2,948.63	
40 05 19 00-1531	EA		42" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,255.66	1,429.32
			<i>For Class 52 Rating, Deduct</i>	-1,989.90	
			<i>For Class 54 Rating, Add</i>	1,356.75	
			<i>For Class 55 Rating, Add</i>	3,015.61	
40 05 19 00-1532	EA		42" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,868.61	1,431.41
			<i>For Class 52 Rating, Deduct</i>	-2,056.98	
			<i>For Class 54 Rating, Add</i>	1,402.49	
			<i>For Class 55 Rating, Add</i>	3,117.26	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1533 EA 42" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	21,375.04	1,433.48
For Class 52 Rating, Deduct	-2,112.34	
For Class 54 Rating, Add	1,440.23	
For Class 55 Rating, Add	3,201.15	
40 05 19 00-1534 EA 42" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	21,886.52	1,435.57
For Class 52 Rating, Deduct	-2,168.26	
For Class 54 Rating, Add	1,478.36	
For Class 55 Rating, Add	3,285.89	
40 05 19 00-1535 EA 42" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	22,392.94	1,437.65
For Class 52 Rating, Deduct	-2,223.61	
For Class 54 Rating, Add	1,516.10	
For Class 55 Rating, Add	3,369.79	
40 05 19 00-1536 EA 42" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	22,905.44	1,439.74
For Class 52 Rating, Deduct	-2,279.64	
For Class 54 Rating, Add	1,554.30	
For Class 55 Rating, Add	3,454.69	
40 05 19 00-1537 EA 42" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	23,410.85	1,441.82
For Class 52 Rating, Deduct	-2,334.89	
For Class 54 Rating, Add	1,591.97	
For Class 55 Rating, Add	3,538.42	
40 05 19 00-1538 EA 42" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	23,923.36	1,443.90
For Class 52 Rating, Deduct	-2,390.92	
For Class 54 Rating, Add	1,630.17	
For Class 55 Rating, Add	3,623.33	
40 05 19 00-1539 EA 42" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	24,429.78	1,446.00
For Class 52 Rating, Deduct	-2,446.28	
For Class 54 Rating, Add	1,667.92	
For Class 55 Rating, Add	3,707.22	
40 05 19 00-1540 EA 42" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	24,941.26	1,448.07
For Class 52 Rating, Deduct	-2,502.19	
For Class 54 Rating, Add	1,706.04	
For Class 55 Rating, Add	3,791.96	
40 05 19 00-1541 48" Flanged End x Plain End (FxPE), Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe		
<small>(40 05 19 00-1028)</small>		
40 05 19 00-1542 EA 48" Flanged x Plain End (FxPE), 1'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	7,850.37	1,723.10
For Class 52 Rating, Deduct	-576.36	
For Class 54 Rating, Add	392.97	
For Class 55 Rating, Add	873.44	
40 05 19 00-1543 EA 48" Flanged x Plain End (FxPE), 1'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	8,595.22	1,725.18
For Class 52 Rating, Deduct	-657.94	
For Class 54 Rating, Add	448.60	
For Class 55 Rating, Add	997.08	
40 05 19 00-1544 EA 48" Flanged x Plain End (FxPE), 2'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	9,339.07	1,727.27
For Class 52 Rating, Deduct	-739.42	
For Class 54 Rating, Add	504.15	
For Class 55 Rating, Add	1,120.56	
40 05 19 00-1545 EA 48" Flanged x Plain End (FxPE), 2'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,088.99	1,729.35
For Class 52 Rating, Deduct	-821.56	
For Class 54 Rating, Add	560.16	
For Class 55 Rating, Add	1,245.04	
40 05 19 00-1546 EA 48" Flanged x Plain End (FxPE), 3'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	10,833.86	1,731.43
For Class 52 Rating, Deduct	-903.15	
For Class 54 Rating, Add	615.79	
For Class 55 Rating, Add	1,368.69	
40 05 19 00-1547 EA 48" Flanged x Plain End (FxPE), 3'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	11,578.72	1,733.52
For Class 52 Rating, Deduct	-984.74	
For Class 54 Rating, Add	671.41	
For Class 55 Rating, Add	1,492.33	
40 05 19 00-1548 EA 48" Flanged x Plain End (FxPE), 4'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	12,327.63	1,735.60
For Class 52 Rating, Deduct	-1,066.77	
For Class 54 Rating, Add	727.34	
For Class 55 Rating, Add	1,616.64	
40 05 19 00-1549 EA 48" Flanged x Plain End (FxPE), 4'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,073.51	1,737.68
For Class 52 Rating, Deduct	-1,148.47	
For Class 54 Rating, Add	783.05	
For Class 55 Rating, Add	1,740.46	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1550	EA		48" Flanged x Plain End (FxPE), 5'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	13,817.34	1,739.76
			<i>For Class 52 Rating, Deduct</i>	-1,229.95	
			<i>For Class 54 Rating, Add</i>	838.60	
			<i>For Class 55 Rating, Add</i>	1,863.93	
40 05 19 00-1551	EA		48" Flanged x Plain End (FxPE), 5'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	14,567.29	1,741.86
			<i>For Class 52 Rating, Deduct</i>	-1,312.09	
			<i>For Class 54 Rating, Add</i>	894.61	
			<i>For Class 55 Rating, Add</i>	1,988.42	
40 05 19 00-1552	EA		48" Flanged x Plain End (FxPE), 6'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	15,312.14	1,743.95
			<i>For Class 52 Rating, Deduct</i>	-1,393.68	
			<i>For Class 54 Rating, Add</i>	950.24	
			<i>For Class 55 Rating, Add</i>	2,112.06	
40 05 19 00-1553	EA		48" Flanged x Plain End (FxPE), 6'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,062.07	1,746.02
			<i>For Class 52 Rating, Deduct</i>	-1,475.82	
			<i>For Class 54 Rating, Add</i>	1,006.24	
			<i>For Class 55 Rating, Add</i>	2,236.54	
40 05 19 00-1554	EA		48" Flanged x Plain End (FxPE), 7'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	16,805.91	1,748.11
			<i>For Class 52 Rating, Deduct</i>	-1,557.30	
			<i>For Class 54 Rating, Add</i>	1,061.80	
			<i>For Class 55 Rating, Add</i>	2,360.02	
40 05 19 00-1555	EA		48" Flanged x Plain End (FxPE), 7'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	17,550.77	1,750.19
			<i>For Class 52 Rating, Deduct</i>	-1,638.89	
			<i>For Class 54 Rating, Add</i>	1,117.42	
			<i>For Class 55 Rating, Add</i>	2,483.66	
40 05 19 00-1556	EA		48" Flanged x Plain End (FxPE), 8'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	18,300.71	1,752.28
			<i>For Class 52 Rating, Deduct</i>	-1,721.03	
			<i>For Class 54 Rating, Add</i>	1,173.43	
			<i>For Class 55 Rating, Add</i>	2,608.15	
40 05 19 00-1557	EA		48" Flanged x Plain End (FxPE), 8'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,045.57	1,754.36
			<i>For Class 52 Rating, Deduct</i>	-1,802.62	
			<i>For Class 54 Rating, Add</i>	1,229.06	
			<i>For Class 55 Rating, Add</i>	2,731.79	
40 05 19 00-1558	EA		48" Flanged x Plain End (FxPE), 9'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	19,789.41	1,756.44
			<i>For Class 52 Rating, Deduct</i>	-1,884.10	
			<i>For Class 54 Rating, Add</i>	1,284.61	
			<i>For Class 55 Rating, Add</i>	2,855.26	
40 05 19 00-1559	EA		48" Flanged x Plain End (FxPE), 9'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	20,539.34	1,758.53
			<i>For Class 52 Rating, Deduct</i>	-1,966.24	
			<i>For Class 54 Rating, Add</i>	1,340.62	
			<i>For Class 55 Rating, Add</i>	2,979.75	
40 05 19 00-1560	EA		48" Flanged x Plain End (FxPE), 10'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	21,284.19	1,760.60
			<i>For Class 52 Rating, Deduct</i>	-2,047.83	
			<i>For Class 54 Rating, Add</i>	1,396.25	
			<i>For Class 55 Rating, Add</i>	3,103.39	
40 05 19 00-1561	EA		48" Flanged x Plain End (FxPE), 10'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	22,028.05	1,762.69
			<i>For Class 52 Rating, Deduct</i>	-2,129.30	
			<i>For Class 54 Rating, Add</i>	1,451.80	
			<i>For Class 55 Rating, Add</i>	3,226.86	
40 05 19 00-1562	EA		48" Flanged x Plain End (FxPE), 11'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	22,777.98	1,764.78
			<i>For Class 52 Rating, Deduct</i>	-2,211.45	
			<i>For Class 54 Rating, Add</i>	1,507.81	
			<i>For Class 55 Rating, Add</i>	3,351.35	
40 05 19 00-1563	EA		48" Flanged x Plain End (FxPE), 11'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	23,523.85	1,766.86
			<i>For Class 52 Rating, Deduct</i>	-2,293.15	
			<i>For Class 54 Rating, Add</i>	1,563.51	
			<i>For Class 55 Rating, Add</i>	3,475.16	
40 05 19 00-1564	EA		48" Flanged x Plain End (FxPE), 12'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	24,267.69	1,768.94
			<i>For Class 52 Rating, Deduct</i>	-2,374.62	
			<i>For Class 54 Rating, Add</i>	1,619.06	
			<i>For Class 55 Rating, Add</i>	3,598.63	
40 05 19 00-1565	EA		48" Flanged x Plain End (FxPE), 12'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	25,017.64	1,771.02
			<i>For Class 52 Rating, Deduct</i>	-2,456.77	
			<i>For Class 54 Rating, Add</i>	1,675.07	
			<i>For Class 55 Rating, Add</i>	3,723.12	
40 05 19 00-1566	EA		48" Flanged x Plain End (FxPE), 13'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	25,762.49	1,773.11
			<i>For Class 52 Rating, Deduct</i>	-2,538.36	
			<i>For Class 54 Rating, Add</i>	1,730.70	
			<i>For Class 55 Rating, Add</i>	3,846.76	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1567 EA 48" Flanged x Plain End (FxPE), 13'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	26,506.33	1,775.19
<i>For Class 52 Rating, Deduct</i>	-2,619.83	
<i>For Class 54 Rating, Add</i>	1,786.25	
<i>For Class 55 Rating, Add</i>	3,970.23	
40 05 19 00-1568 EA 48" Flanged x Plain End (FxPE), 14'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	27,256.26	1,777.27
<i>For Class 52 Rating, Deduct</i>	-2,701.98	
<i>For Class 54 Rating, Add</i>	1,842.26	
<i>For Class 55 Rating, Add</i>	4,094.72	
40 05 19 00-1569 EA 48" Flanged x Plain End (FxPE), 14'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	28,001.11	1,779.36
<i>For Class 52 Rating, Deduct</i>	-2,783.56	
<i>For Class 54 Rating, Add</i>	1,897.88	
<i>For Class 55 Rating, Add</i>	4,218.36	
40 05 19 00-1570 EA 48" Flanged x Plain End (FxPE), 15'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	28,654.67	1,781.44
<i>For Class 52 Rating, Deduct</i>	-2,855.11	
<i>For Class 54 Rating, Add</i>	1,946.66	
<i>For Class 55 Rating, Add</i>	4,326.78	
40 05 19 00-1571 EA 48" Flanged x Plain End (FxPE), 15'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	29,495.91	1,783.52
<i>For Class 52 Rating, Deduct</i>	-2,947.30	
<i>For Class 54 Rating, Add</i>	2,009.52	
<i>For Class 55 Rating, Add</i>	4,466.49	
40 05 19 00-1572 EA 48" Flanged x Plain End (FxPE), 16'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	30,239.76	1,785.61
<i>For Class 52 Rating, Deduct</i>	-3,028.77	
<i>For Class 54 Rating, Add</i>	2,065.07	
<i>For Class 55 Rating, Add</i>	4,589.97	
40 05 19 00-1573 EA 48" Flanged x Plain End (FxPE), 16'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	30,990.70	1,787.69
<i>For Class 52 Rating, Deduct</i>	-3,111.03	
<i>For Class 54 Rating, Add</i>	2,121.16	
<i>For Class 55 Rating, Add</i>	4,714.62	
40 05 19 00-1574 EA 48" Flanged x Plain End (FxPE), 17'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	31,734.54	1,789.77
<i>For Class 52 Rating, Deduct</i>	-3,192.50	
<i>For Class 54 Rating, Add</i>	2,176.71	
<i>For Class 55 Rating, Add</i>	4,838.09	
40 05 19 00-1575 EA 48" Flanged x Plain End (FxPE), 17'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	32,478.39	1,791.86
<i>For Class 52 Rating, Deduct</i>	-3,273.98	
<i>For Class 54 Rating, Add</i>	2,232.26	
<i>For Class 55 Rating, Add</i>	4,961.57	
40 05 19 00-1576 EA 48" Flanged x Plain End (FxPE), 18'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	33,229.34	1,793.95
<i>For Class 52 Rating, Deduct</i>	-3,356.24	
<i>For Class 54 Rating, Add</i>	2,288.34	
<i>For Class 55 Rating, Add</i>	5,086.22	
40 05 19 00-1577 EA 48" Flanged x Plain End (FxPE), 18'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	33,973.18	1,796.03
<i>For Class 52 Rating, Deduct</i>	-3,437.71	
<i>For Class 54 Rating, Add</i>	2,343.89	
<i>For Class 55 Rating, Add</i>	5,209.70	
40 05 19 00-1578 EA 48" Flanged x Plain End (FxPE), 19'-0" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	34,718.04	1,798.11
<i>For Class 52 Rating, Deduct</i>	-3,519.30	
<i>For Class 54 Rating, Add</i>	2,399.52	
<i>For Class 55 Rating, Add</i>	5,333.34	
40 05 19 00-1579 EA 48" Flanged x Plain End (FxPE), 19'-6" Spool Length, Class 53, Cement Lined, Bituminous Seal Coat, Ductile Iron Pipe	35,467.97	1,800.20
<i>For Class 52 Rating, Deduct</i>	-3,601.44	
<i>For Class 54 Rating, Add</i>	2,455.53	
<i>For Class 55 Rating, Add</i>	5,457.82	
40 05 19 00-1580 Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbows <small>(40 05 19 00-0001)</small>		
40 05 19 00-1581 EA 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	291.32	100.53
40 05 19 00-1582 EA 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	409.87	128.55
40 05 19 00-1583 EA 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	574.72	145.61
40 05 19 00-1584 EA 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	841.80	184.60
40 05 19 00-1585 EA 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	1,042.72	204.70
40 05 19 00-1586 EA 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	1,300.83	222.37
40 05 19 00-1587 EA 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	1,602.51	274.15
40 05 19 00-1588 EA 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	2,103.62	328.99
40 05 19 00-1589 EA 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	2,591.02	414.28
40 05 19 00-1590 EA 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	3,947.47	469.11
40 05 19 00-1591 EA 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	6,644.82	621.41
40 05 19 00-1592 EA 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	9,425.77	703.66
40 05 19 00-1593 EA 42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	15,799.85	804.18
40 05 19 00-1594 EA 48" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow	21,040.39	986.95

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

40 05 19 00-1595		Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbows (40 05 19 00-0001)	
40 05 19 00-1596	EA	4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	276.10 100.53
40 05 19 00-1597	EA	6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	385.52 128.55
40 05 19 00-1598	EA	8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	512.83 145.61
40 05 19 00-1599	EA	10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	752.51 184.60
40 05 19 00-1600	EA	12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	929.08 204.70
40 05 19 00-1601	EA	14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	1,069.49 222.37
40 05 19 00-1602	EA	16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	1,346.82 274.15
40 05 19 00-1603	EA	18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	1,759.66 328.99
40 05 19 00-1604	EA	20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	2,277.49 414.28
40 05 19 00-1605	EA	24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	3,001.83 469.11
40 05 19 00-1606	EA	30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	5,952.84 621.41
40 05 19 00-1607	EA	36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	8,920.48 703.66
40 05 19 00-1608	EA	42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	13,627.51 804.18
40 05 19 00-1609	EA	48" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 45 Degree Elbow.....	18,582.93 986.95
40 05 19 00-1610		Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbows (40 05 19 00-0001)	
40 05 19 00-1611	EA	4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow.....	275.08 100.53
40 05 19 00-1612	EA	6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow.....	377.41 128.55
40 05 19 00-1613	EA	8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow.....	505.72 145.61
40 05 19 00-1614	EA	10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow.....	732.22 184.60
40 05 19 00-1615	EA	12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow.....	973.72 204.70
40 05 19 00-1616	EA	14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow.....	1,210.52 222.37
40 05 19 00-1617	EA	16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow.....	1,378.27 274.15
40 05 19 00-1618	EA	18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow.....	1,798.21 328.99
40 05 19 00-1619	EA	20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow.....	2,444.91 414.28
40 05 19 00-1620	EA	24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow.....	3,383.33 469.11
40 05 19 00-1621	EA	30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow.....	6,020.82 621.41
40 05 19 00-1622	EA	36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow.....	9,076.73 703.66
40 05 19 00-1623	EA	42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow.....	13,939.00 804.18
40 05 19 00-1624	EA	48" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 22-1/2 Degree Elbow.....	18,988.79 986.95
40 05 19 00-1625		Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbows (40 05 19 00-0001)	
40 05 19 00-1626	EA	4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow.....	300.45 100.53
40 05 19 00-1627	EA	6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow.....	425.09 128.55
40 05 19 00-1628	EA	8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow.....	526.02 145.61
40 05 19 00-1629	EA	10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow.....	804.26 184.60
40 05 19 00-1630	EA	12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow.....	1,106.64 204.70
40 05 19 00-1631	EA	14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow.....	1,245.02 222.37
40 05 19 00-1632	EA	16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow.....	1,522.35 274.15
40 05 19 00-1633	EA	18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow.....	1,798.21 328.99
40 05 19 00-1634	EA	20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow.....	2,444.91 414.28
40 05 19 00-1635	EA	24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow.....	3,520.31 469.11
40 05 19 00-1636	EA	30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow.....	6,088.80 621.41
40 05 19 00-1637	EA	36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow.....	9,143.70 703.66
40 05 19 00-1638	EA	42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow.....	14,010.03 804.18
40 05 19 00-1639	EA	48" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 11-1/4 Degree Elbow.....	19,131.85 986.95
40 05 19 00-1640		Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbows (40 05 19 00-0001)	
40 05 19 00-1641	EA	6" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	387.62 114.53
40 05 19 00-1642	EA	8" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	478.68 123.06
40 05 19 00-1643	EA	8" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	539.48 137.08
40 05 19 00-1644	EA	10" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	721.29 142.56
40 05 19 00-1645	EA	10" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	761.80 156.57
40 05 19 00-1646	EA	10" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	832.56 165.10
40 05 19 00-1647	EA	12" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	775.54 152.92
40 05 19 00-1648	EA	12" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	873.88 166.93
40 05 19 00-1649	EA	12" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,004.50 175.46
40 05 19 00-1650	EA	12" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,070.57 194.96
40 05 19 00-1651	EA	14" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,004.50 175.46
40 05 19 00-1652	EA	14" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,112.80 183.99
40 05 19 00-1653	EA	14" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,239.75 203.48
40 05 19 00-1654	EA	14" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,372.12 213.84
40 05 19 00-1655	EA	16" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,158.38 201.34
40 05 19 00-1656	EA	16" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,249.44 209.88
40 05 19 00-1657	EA	16" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,434.22 229.38
40 05 19 00-1658	EA	16" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,565.11 239.43
40 05 19 00-1659	EA	16" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,675.90 248.26
40 05 19 00-1660	EA	18" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,355.17 228.77
40 05 19 00-1661	EA	18" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,620.74 237.30
40 05 19 00-1662	EA	18" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,669.55 256.79
40 05 19 00-1663	EA	18" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,762.91 266.84



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1664 EA 18" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,912.25	275.68
40 05 19 00-1665 EA 18" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	2,085.42	301.57
40 05 19 00-1666 EA 20" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,748.53	271.41
40 05 19 00-1667 EA 20" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	1,865.95	279.94
40 05 19 00-1668 EA 20" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	2,312.51	299.43
40 05 19 00-1669 EA 20" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	2,399.78	309.49
40 05 19 00-1670 EA 20" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	2,646.54	318.32
40 05 19 00-1671 EA 20" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	2,589.38	344.21
40 05 19 00-1672 EA 20" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	2,756.72	371.63
40 05 19 00-1673 EA 24" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	2,457.69	298.82
40 05 19 00-1674 EA 24" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	2,576.14	307.35
40 05 19 00-1675 EA 24" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	2,772.08	326.85
40 05 19 00-1676 EA 24" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	2,913.13	336.90
40 05 19 00-1677 EA 24" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	3,177.12	345.73
40 05 19 00-1678 EA 24" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	3,424.35	371.63
40 05 19 00-1679 EA 24" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	3,507.49	399.04
40 05 19 00-1680 EA 24" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	3,688.51	394.63
40 05 19 00-1681 EA 30" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	4,384.07	413.06
40 05 19 00-1682 EA 30" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	4,666.34	421.89
40 05 19 00-1683 EA 30" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	5,259.56	447.78
40 05 19 00-1684 EA 30" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	6,112.80	475.19
40 05 19 00-1685 EA 30" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	7,067.26	517.84
40 05 19 00-1686 EA 30" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	7,463.92	545.26
40 05 19 00-1687 EA 36" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	6,036.32	454.18
40 05 19 00-1688 EA 36" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	7,815.17	463.02
40 05 19 00-1689 EA 36" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	6,357.81	488.90
40 05 19 00-1690 EA 36" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	8,298.76	516.32
40 05 19 00-1691 EA 36" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	7,940.27	558.96
40 05 19 00-1692 EA 36" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	8,656.53	586.38
40 05 19 00-1693 EA 36" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	9,236.63	662.53
40 05 19 00-1694 EA 42" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	10,671.43	513.28
40 05 19 00-1695 EA 42" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	9,003.03	539.17
40 05 19 00-1696 EA 42" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	12,121.98	566.58
40 05 19 00-1697 EA 42" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	11,929.88	609.22
40 05 19 00-1698 EA 42" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	10,415.98	636.65
40 05 19 00-1699 EA 42" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	12,272.48	712.80
40 05 19 00-1700 EA 42" x 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	17,322.76	753.92
40 05 19 00-1701 EA 48" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	16,579.75	735.65
40 05 19 00-1702 EA 48" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	18,031.41	811.80
40 05 19 00-1703 EA 48" x 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	18,560.46	852.92
40 05 19 00-1704 EA 48" x 42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing 90 Degree Elbow.....	23,729.10	903.18
40 05 19 00-1705 Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius		
90 Degree Elbows (40 05 19 00-0001)		
40 05 19 00-1706 EA 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow.....	347.12	100.53
40 05 19 00-1707 EA 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow.....	534.67	128.55
40 05 19 00-1708 EA 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow.....	783.74	145.61
40 05 19 00-1709 EA 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow.....	1,113.72	184.60
40 05 19 00-1710 EA 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow.....	1,571.35	204.70
40 05 19 00-1711 EA 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow.....	1,831.48	222.37
40 05 19 00-1712 EA 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow.....	2,375.66	274.15
40 05 19 00-1713 EA 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow.....	2,942.73	328.99
40 05 19 00-1714 EA 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow.....	4,011.51	414.28
40 05 19 00-1715 EA 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow.....	5,889.49	469.11
40 05 19 00-1716 EA 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow.....	10,361.45	621.41
40 05 19 00-1717 EA 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow.....	15,766.25	703.66
40 05 19 00-1718 EA 42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Long Radius 90 Degree Elbow.....	24,439.51	804.18
40 05 19 00-1719 Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree		
Elbows With Base (40 05 19 00-0001)		
40 05 19 00-1720 EA 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base.....	366.40	100.53
40 05 19 00-1721 EA 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base.....	497.13	128.55
40 05 19 00-1722 EA 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base.....	810.12	145.61
40 05 19 00-1723 EA 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base.....	1,094.45	184.60
40 05 19 00-1724 EA 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base.....	1,468.87	204.70
40 05 19 00-1725 EA 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base.....	1,734.08	222.37
40 05 19 00-1726 EA 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base.....	2,142.30	274.15
40 05 19 00-1727 EA 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base.....	2,691.10	328.99
40 05 19 00-1728 EA 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base.....	3,550.87	414.28
40 05 19 00-1729 EA 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base.....	5,012.84	469.11
40 05 19 00-1730 EA 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base.....	8,213.45	621.41
40 05 19 00-1731 EA 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base.....	11,739.15	703.66
40 05 19 00-1732 EA 42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base.....	21,789.27	804.18
40 05 19 00-1733 EA 48" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron 90 Degree Elbow With Base.....	23,498.86	986.95
40 05 19 00-1734 Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tees (40 05 19 00-0001)		
40 05 19 00-1735 EA 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee.....	488.27	161.44

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

40 05 19 00-1736	EA	6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	617.49	198.61
40 05 19 00-1737	EA	8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	864.62	221.76
40 05 19 00-1738	EA	10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	1,240.20	288.17
40 05 19 00-1739	EA	12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	1,645.18	314.36
40 05 19 00-1740	EA	14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	2,199.65	338.12
40 05 19 00-1741	EA	16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	2,493.81	426.45
40 05 19 00-1742	EA	18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	3,039.65	487.38
40 05 19 00-1743	EA	20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	3,834.18	615.32
40 05 19 00-1744	EA	24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	5,637.72	679.29
40 05 19 00-1745	EA	30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	9,586.35	938.21
40 05 19 00-1746	EA	36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	13,806.94	1,075.29
40 05 19 00-1747	EA	42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee	28,516.36	1,242.82

40 05 19 00-1748 Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tees

(40 05 19 00-0001)

40 05 19 00-1749	EA	6" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	623.28	180.33
40 05 19 00-1750	EA	8" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	769.86	183.99
40 05 19 00-1751	EA	8" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	770.44	207.13
40 05 19 00-1752	EA	10" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	1,013.48	203.48
40 05 19 00-1753	EA	10" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	1,001.88	226.63
40 05 19 00-1754	EA	10" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	1,056.51	241.26
40 05 19 00-1755	EA	12" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	1,282.83	213.84
40 05 19 00-1756	EA	12" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	1,280.37	236.99
40 05 19 00-1757	EA	12" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	1,352.23	251.61
40 05 19 00-1758	EA	12" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	1,611.02	298.52
40 05 19 00-1759	EA	14" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	1,865.98	222.37
40 05 19 00-1760	EA	14" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	1,826.99	245.51
40 05 19 00-1761	EA	14" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	1,907.99	260.14
40 05 19 00-1762	EA	14" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	2,016.60	307.05
40 05 19 00-1763	EA	14" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	2,138.48	323.20
40 05 19 00-1764	EA	16" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	2,262.37	248.26
40 05 19 00-1765	EA	16" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	2,086.40	271.41
40 05 19 00-1766	EA	16" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	2,053.76	286.04
40 05 19 00-1767	EA	16" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	2,409.94	332.95
40 05 19 00-1768	EA	16" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	2,340.05	349.09
40 05 19 00-1769	EA	16" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	2,608.21	364.01
40 05 19 00-1770	EA	18" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	2,765.57	275.68
40 05 19 00-1771	EA	18" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	2,088.36	298.82
40 05 19 00-1772	EA	18" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	2,513.33	313.45
40 05 19 00-1773	EA	18" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	2,524.55	360.36
40 05 19 00-1774	EA	18" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	2,746.86	376.51
40 05 19 00-1775	EA	18" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	2,997.78	391.43
40 05 19 00-1776	EA	18" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	3,209.07	453.88
40 05 19 00-1777	EA	20" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	6,099.36	318.32
40 05 19 00-1778	EA	20" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	3,066.16	341.47
40 05 19 00-1779	EA	20" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	3,129.91	356.09
40 05 19 00-1780	EA	20" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	3,263.89	403.00
40 05 19 00-1781	EA	20" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	3,391.85	419.15
40 05 19 00-1782	EA	20" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	3,435.77	434.07
40 05 19 00-1783	EA	20" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	4,136.12	496.52
40 05 19 00-1784	EA	20" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	4,228.50	530.03
40 05 19 00-1785	EA	24" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	4,053.77	345.73
40 05 19 00-1786	EA	24" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	3,504.42	368.89
40 05 19 00-1787	EA	24" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	3,663.56	383.50
40 05 19 00-1788	EA	24" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	3,810.72	430.42
40 05 19 00-1789	EA	24" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	4,269.45	446.56
40 05 19 00-1790	EA	24" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	4,375.27	461.49
40 05 19 00-1791	EA	24" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	4,524.67	523.93
40 05 19 00-1792	EA	24" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	5,940.13	557.45
40 05 19 00-1793	EA	24" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	6,145.17	595.68
40 05 19 00-1794	EA	30" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	7,186.26	445.04
40 05 19 00-1795	EA	30" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	7,229.73	459.67
40 05 19 00-1796	EA	30" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	7,435.74	506.58
40 05 19 00-1797	EA	30" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	7,460.20	522.71
40 05 19 00-1798	EA	30" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	7,482.82	537.64
40 05 19 00-1799	EA	30" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	7,644.40	600.09
40 05 19 00-1800	EA	30" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	7,739.81	633.60
40 05 19 00-1801	EA	30" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	7,979.65	718.89
40 05 19 00-1802	EA	36" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	10,206.36	755.44
40 05 19 00-1803	EA	36" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	9,914.20	636.95
40 05 19 00-1804	EA	36" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	10,604.44	648.52
40 05 19 00-1805	EA	36" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	10,677.07	681.73
40 05 19 00-1806	EA	36" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	10,763.88	694.82
40 05 19 00-1807	EA	36" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	10,804.20	706.70
40 05 19 00-1808	EA	36" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	10,915.78	750.87
40 05 19 00-1809	EA	36" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	10,984.25	781.34
40 05 19 00-1810	EA	36" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	11,170.46	845.30
40 05 19 00-1811	EA	36" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	11,420.84	877.28
40 05 19 00-1812	EA	36" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	14,949.07	1,006.74
40 05 19 00-1813	EA	42" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	17,703.31	551.05
40 05 19 00-1814	EA	42" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee	16,012.98	597.96



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1815 EA 42" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	16,037.44	614.10
40 05 19 00-1816 EA 42" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	16,083.39	629.03
40 05 19 00-1817 EA 42" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	16,225.69	691.48
40 05 19 00-1818 EA 42" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	16,396.18	724.98
40 05 19 00-1819 EA 42" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	16,525.41	810.27
40 05 19 00-1820 EA 42" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	16,771.55	846.83
40 05 19 00-1821 EA 42" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	21,248.06	1,029.60
40 05 19 00-1822 EA 42" x 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	27,288.51	1,125.55
40 05 19 00-1823 EA 48" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	21,676.64	713.10
40 05 19 00-1824 EA 48" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	21,699.25	728.03
40 05 19 00-1825 EA 48" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	21,864.89	790.47
40 05 19 00-1826 EA 48" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	21,915.65	823.98
40 05 19 00-1827 EA 48" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	22,139.24	909.28
40 05 19 00-1828 EA 48" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	22,362.05	945.83
40 05 19 00-1829 EA 48" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Reducing Tee.....	22,973.80	1,128.60
40 05 19 00-1830 Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tees With Base (40 05 19 00-0001)		
40 05 19 00-1831 EA 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	536.83	161.44
40 05 19 00-1832 EA 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	728.08	198.61
40 05 19 00-1833 EA 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	1,055.37	221.76
40 05 19 00-1834 EA 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	1,600.40	288.17
40 05 19 00-1835 EA 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	2,144.38	314.36
40 05 19 00-1836 EA 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	2,394.46	338.12
40 05 19 00-1837 EA 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	2,972.72	426.45
40 05 19 00-1838 EA 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	3,608.87	487.38
40 05 19 00-1839 EA 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	4,816.35	615.32
40 05 19 00-1840 EA 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	6,918.20	679.29
40 05 19 00-1841 EA 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	11,580.12	938.21
40 05 19 00-1842 EA 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Tee With Base.....	16,484.57	1,075.29
40 05 19 00-1843 Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Wyes (40 05 19 00-0001)		
40 05 19 00-1844 EA 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Wye.....	439.42	161.44
40 05 19 00-1845 EA 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Wye.....	612.41	198.61
40 05 19 00-1846 EA 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Wye.....	879.84	221.76
40 05 19 00-1847 EA 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Wye.....	1,155.99	288.17
40 05 19 00-1848 EA 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Wye.....	1,640.10	314.36
40 05 19 00-1849 EA 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Wye.....	2,122.53	338.12
40 05 19 00-1850 Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Crosses (40 05 19 00-0001)		
40 05 19 00-1851 EA 4" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	603.77	222.37
40 05 19 00-1852 EA 6" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	792.24	240.95
40 05 19 00-1853 EA 8" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	840.32	268.67
40 05 19 00-1854 EA 8" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	972.76	244.91
40 05 19 00-1855 EA 8" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	1,061.24	277.20
40 05 19 00-1856 EA 8" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	1,099.75	297.91
40 05 19 00-1857 EA 10" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	1,253.92	264.40
40 05 19 00-1858 EA 10" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	1,380.98	296.69
40 05 19 00-1859 EA 10" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	1,509.76	317.41
40 05 19 00-1860 EA 10" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	1,874.02	391.73
40 05 19 00-1861 EA 12" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	1,618.19	274.46
40 05 19 00-1862 EA 12" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	1,705.67	306.74
40 05 19 00-1863 EA 12" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	1,835.47	327.46
40 05 19 00-1864 EA 12" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,218.99	401.79
40 05 19 00-1865 EA 12" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,093.40	424.03
40 05 19 00-1866 EA 14" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,029.54	315.58
40 05 19 00-1867 EA 14" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,158.33	336.29
40 05 19 00-1868 EA 14" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,406.90	410.62
40 05 19 00-1869 EA 14" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,616.12	432.85
40 05 19 00-1870 EA 14" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,744.37	453.88
40 05 19 00-1871 EA 16" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,418.82	341.47
40 05 19 00-1872 EA 16" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,565.87	362.19
40 05 19 00-1873 EA 16" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,814.45	436.51
40 05 19 00-1874 EA 16" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,042.95	458.75
40 05 19 00-1875 EA 16" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	4,230.47	479.76
40 05 19 00-1876 EA 16" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,457.15	578.77
40 05 19 00-1877 EA 18" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,519.20	368.89
40 05 19 00-1878 EA 18" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,665.24	389.60
40 05 19 00-1879 EA 18" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	2,875.26	463.93
40 05 19 00-1880 EA 18" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,102.75	486.16
40 05 19 00-1881 EA 18" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,560.75	507.19
40 05 19 00-1882 EA 18" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,886.28	606.18
40 05 19 00-1883 EA 18" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	4,062.97	645.79
40 05 19 00-1884 EA 20" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,276.81	411.54
40 05 19 00-1885 EA 20" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,433.00	432.24
40 05 19 00-1886 EA 20" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,628.81	506.58
40 05 19 00-1887 EA 20" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,871.53	528.81

40 Process Interconnections

40 05 Common Work Results For Process Interconnections

40 05 19 Ductile Iron Process Pipe



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1888 EA 20" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	3,944.97	549.83
40 05 19 00-1889 EA 20" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	4,805.22	648.82
40 05 19 00-1890 EA 20" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	4,990.02	688.43
40 05 19 00-1891 EA 20" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	5,477.10	816.37
40 05 19 00-1892 EA 24" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	4,320.83	438.95
40 05 19 00-1893 EA 24" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	4,434.39	459.67
40 05 19 00-1894 EA 24" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	4,693.12	533.99
40 05 19 00-1895 EA 24" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	4,852.62	556.23
40 05 19 00-1896 EA 24" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	4,947.38	577.24
40 05 19 00-1897 EA 24" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	5,243.48	676.24
40 05 19 00-1898 EA 24" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	6,786.89	715.84
40 05 19 00-1899 EA 24" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	7,179.31	796.72
40 05 19 00-1900 EA 24" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	7,905.31	889.47
40 05 19 00-1901 EA 30" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	7,962.21	632.38
40 05 19 00-1902 EA 30" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	8,016.38	653.39
40 05 19 00-1903 EA 30" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	8,322.64	752.39
40 05 19 00-1904 EA 30" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	8,427.28	791.99
40 05 19 00-1905 EA 30" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	8,867.68	919.93
40 05 19 00-1906 EA 30" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	11,510.04	965.62
40 05 19 00-1907 EA 36" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	13,087.94	1,255.01
40 05 19 00-1908 EA 36" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	11,241.53	804.49
40 05 19 00-1909 EA 36" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	11,268.75	822.46
40 05 19 00-1910 EA 36" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	11,527.04	903.18
40 05 19 00-1911 EA 36" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	11,626.05	939.73
40 05 19 00-1912 EA 36" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	11,989.49	1,046.35
40 05 19 00-1913 EA 36" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	12,409.98	1,087.47
40 05 19 00-1914 EA 36" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	16,771.44	1,323.54
40 05 19 00-1915 EA 36" x 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	18,390.01	1,446.92
40 05 19 00-1916 EA 42" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	16,561.75	723.76
40 05 19 00-1917 EA 42" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	16,593.60	744.78
40 05 19 00-1918 EA 42" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	16,886.67	843.78
40 05 19 00-1919 EA 42" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	16,969.99	883.38
40 05 19 00-1920 EA 42" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	17,378.95	1,011.31
40 05 19 00-1921 EA 42" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	17,806.35	1,057.01
40 05 19 00-1922 EA 42" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	22,921.28	1,346.39
40 05 19 00-1923 EA 42" x 42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	31,646.34	1,497.17
40 05 19 00-1924 EA 48" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	23,501.01	1,681.46
40 05 19 00-1925 EA 48" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	22,207.44	843.78
40 05 19 00-1926 EA 48" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	22,501.51	942.78
40 05 19 00-1927 EA 48" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	22,584.84	982.38
40 05 19 00-1928 EA 48" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	22,969.44	1,110.32
40 05 19 00-1929 EA 48" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	23,396.85	1,156.01
40 05 19 00-1930 EA 48" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Cross.....	24,479.59	1,445.40

40 05 19 00-1931 Flanged End x Flanged End, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducers (40 05 19 00-0001)

40 05 19 00-1932 EA 6" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	321.67	114.53
40 05 19 00-1933 EA 8" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	408.67	123.06
40 05 19 00-1934 EA 8" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	450.19	137.08
40 05 19 00-1935 EA 10" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	547.79	142.56
40 05 19 00-1936 EA 10" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	553.80	156.57
40 05 19 00-1937 EA 10" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	645.87	165.10
40 05 19 00-1938 EA 12" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	697.41	152.92
40 05 19 00-1939 EA 12" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	721.68	166.93
40 05 19 00-1940 EA 12" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	790.41	175.46
40 05 19 00-1941 EA 12" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	888.95	194.96
40 05 19 00-1942 EA 14" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,084.92	166.93
40 05 19 00-1943 EA 14" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	867.52	175.46
40 05 19 00-1944 EA 14" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	958.58	183.99
40 05 19 00-1945 EA 14" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,054.07	203.48
40 05 19 00-1946 EA 14" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,026.13	213.84
40 05 19 00-1947 EA 16" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,283.26	187.34
40 05 19 00-1948 EA 16" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,043.73	201.34
40 05 19 00-1949 EA 16" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	987.66	209.88
40 05 19 00-1950 EA 16" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,100.40	229.38
40 05 19 00-1951 EA 16" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,360.15	239.43
40 05 19 00-1952 EA 16" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,462.83	248.26
40 05 19 00-1953 EA 18" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,623.04	228.77
40 05 19 00-1954 EA 18" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,290.98	237.30
40 05 19 00-1955 EA 18" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,417.91	256.79
40 05 19 00-1956 EA 18" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,409.82	266.84
40 05 19 00-1957 EA 18" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,620.04	275.68
40 05 19 00-1958 EA 18" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,619.70	301.57
40 05 19 00-1959 EA 20" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,664.31	271.41
40 05 19 00-1960 EA 20" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,615.34	279.94
40 05 19 00-1961 EA 20" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,749.39	299.43
40 05 19 00-1962 EA 20" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,706.78	309.49
40 05 19 00-1963 EA 20" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,966.73	318.32
40 05 19 00-1964 EA 20" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	1,849.70	344.21
40 05 19 00-1965 EA 20" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	2,276.80	371.63



	MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-1966	EA			24" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	2,178.40	307.35
40 05 19 00-1967	EA			24" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	2,458.56	326.85
40 05 19 00-1968	EA			24" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	2,643.23	336.90
40 05 19 00-1969	EA			24" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	2,713.43	345.73
40 05 19 00-1970	EA			24" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	2,406.67	371.63
40 05 19 00-1971	EA			24" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	2,901.75	399.04
40 05 19 00-1972	EA			24" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	3,062.48	394.63
40 05 19 00-1973	EA			30" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	4,168.82	447.78
40 05 19 00-1974	EA			30" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	4,345.30	475.19
40 05 19 00-1975	EA			30" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	4,678.80	517.84
40 05 19 00-1976	EA			30" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	5,167.79	545.26
40 05 19 00-1977	EA			36" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	5,686.12	488.90
40 05 19 00-1978	EA			36" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	5,973.21	516.32
40 05 19 00-1979	EA			36" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	6,351.34	558.96
40 05 19 00-1980	EA			36" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	6,908.31	586.38
40 05 19 00-1981	EA			36" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	7,963.26	662.53
40 05 19 00-1982	EA			42" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	9,651.96	636.65
40 05 19 00-1983	EA			42" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	10,911.85	712.80
40 05 19 00-1984	EA			42" x 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	12,334.79	753.92
40 05 19 00-1985	EA			48" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	12,259.42	735.65
40 05 19 00-1986	EA			48" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	13,758.76	811.80
40 05 19 00-1987	EA			48" x 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	15,372.46	852.92
40 05 19 00-1988	EA			48" x 42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Concentric Reducer.....	17,215.11	903.18
40 05 19 00-1989				Flanged End x Flanged End, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducers (40 05 19 00-0001)		
40 05 19 00-1990	EA			6" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	349.06	114.53
40 05 19 00-1991	EA			8" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	440.12	123.06
40 05 19 00-1992	EA			8" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	499.91	137.08
40 05 19 00-1993	EA			10" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	547.79	142.56
40 05 19 00-1994	EA			10" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	587.28	156.57
40 05 19 00-1995	EA			10" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	677.32	165.10
40 05 19 00-1996	EA			12" x 4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	697.41	152.92
40 05 19 00-1997	EA			12" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	758.21	166.93
40 05 19 00-1998	EA			12" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	828.97	175.46
40 05 19 00-1999	EA			12" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	955.92	194.96
40 05 19 00-2000	EA			14" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	867.52	175.46
40 05 19 00-2001	EA			14" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	939.30	183.99
40 05 19 00-2002	EA			14" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,046.97	203.48
40 05 19 00-2003	EA			14" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,197.60	213.84
40 05 19 00-2004	EA			16" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,043.73	201.34
40 05 19 00-2005	EA			16" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,132.76	209.88
40 05 19 00-2006	EA			16" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,259.70	229.38
40 05 19 00-2007	EA			16" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,391.60	239.43
40 05 19 00-2008	EA			16" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,462.83	248.26
40 05 19 00-2009	EA			18" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,290.98	237.30
40 05 19 00-2010	EA			18" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,417.91	256.79
40 05 19 00-2011	EA			18" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,549.84	266.84
40 05 19 00-2012	EA			18" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,620.04	275.68
40 05 19 00-2013	EA			18" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,775.95	301.57
40 05 19 00-2014	EA			20" x 6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,881.44	271.41
40 05 19 00-2015	EA			20" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,719.85	279.94
40 05 19 00-2016	EA			20" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,749.39	299.43
40 05 19 00-2017	EA			20" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,910.72	309.49
40 05 19 00-2018	EA			20" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	1,966.73	318.32
40 05 19 00-2019	EA			20" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	2,150.04	344.21
40 05 19 00-2020	EA			20" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	2,275.78	371.63
40 05 19 00-2021	EA			24" x 8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	2,387.42	307.35
40 05 19 00-2022	EA			24" x 10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	2,458.56	326.85
40 05 19 00-2023	EA			24" x 12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	2,515.39	336.90
40 05 19 00-2024	EA			24" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	2,570.37	345.73
40 05 19 00-2025	EA			24" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	2,756.72	371.63
40 05 19 00-2026	EA			24" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	2,901.75	399.04
40 05 19 00-2027	EA			24" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	3,062.48	394.63
40 05 19 00-2028	EA			30" x 14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	4,980.87	421.89
40 05 19 00-2029	EA			30" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	4,862.84	447.78
40 05 19 00-2030	EA			30" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	4,367.62	475.19
40 05 19 00-2031	EA			30" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	4,678.80	517.84
40 05 19 00-2032	EA			30" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	5,167.79	545.26
40 05 19 00-2033	EA			36" x 16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	5,730.76	488.90
40 05 19 00-2034	EA			36" x 18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	5,973.21	516.32
40 05 19 00-2035	EA			36" x 20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	6,329.02	558.96
40 05 19 00-2036	EA			36" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	6,883.96	586.38
40 05 19 00-2037	EA			36" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	7,940.93	662.53
40 05 19 00-2038	EA			42" x 24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	9,651.96	636.65
40 05 19 00-2039	EA			42" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	8,172.32	712.80
40 05 19 00-2040	EA			42" x 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	12,334.79	753.92
40 05 19 00-2041	EA			48" x 30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	13,758.76	811.80
40 05 19 00-2042	EA			48" x 36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	15,372.46	852.92
40 05 19 00-2043	EA			48" x 42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Eccentric Reducer.....	17,215.11	903.18

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2044			Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flanges ^(40 05 19 00-0001)		
40 05 19 00-2045	EA		4" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	123.92	39.60
40 05 19 00-2046	EA		6" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	186.02	58.49
40 05 19 00-2047	EA		8" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	268.59	69.45
40 05 19 00-2048	EA		10" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	368.31	81.03
40 05 19 00-2049	EA		12" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	474.77	95.04
40 05 19 00-2050	EA		14" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	626.25	106.62
40 05 19 00-2051	EA		16" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	747.75	121.84
40 05 19 00-2052	EA		18" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	1,013.35	170.58
40 05 19 00-2053	EA		20" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	1,344.81	213.23
40 05 19 00-2054	EA		24" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	1,912.24	258.92
40 05 19 00-2055	EA		30" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	2,691.16	301.57
40 05 19 00-2056	EA		36" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	4,790.95	332.03
40 05 19 00-2057	EA		42" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	6,747.20	365.54
40 05 19 00-2058	EA		48" Flanged, Cement Lined, Bituminous Seal Coat, Ductile Iron Blind Flange	8,911.66	411.23
40 05 19 00-2059			Ductile Iron Bolt Packs ^(40 05 19)		
			Note: Labor installation is included with pipe fittings or valves.		
40 05 19 00-2060	EA		4" Pipe Diameter, Ductile Iron Flange Bolt Pack	36.78	
			Note: Includes eight (8) 5/8" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	10.30	
			For Hot Dip Galvanized, Add	14.71	
40 05 19 00-2061	EA		6" Pipe Diameter, Ductile Iron Flange Bolt Pack	56.75	
			Note: Includes eight (8) 3/4" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	15.89	
			For Hot Dip Galvanized, Add	22.70	
40 05 19 00-2062	EA		8" Pipe Diameter, Ductile Iron Flange Bolt Pack	61.62	
			Note: Includes eight (8) 3/4" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	17.25	
			For Hot Dip Galvanized, Add	24.65	
40 05 19 00-2063	EA		10" Pipe Diameter, Ductile Iron Flange Bolt Pack	138.42	
			Note: Includes twelve (12) 7/8" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	38.76	
			For Hot Dip Galvanized, Add	55.37	
40 05 19 00-2064	EA		12" Pipe Diameter, Ductile Iron Flange Bolt Pack	139.64	
			Note: Includes twelve (12) 7/8" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	39.10	
			For Hot Dip Galvanized, Add	55.86	
40 05 19 00-2065	EA		14" Pipe Diameter, Ductile Iron Flange Bolt Pack	156.45	
			Note: Includes twelve (12) 1" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	43.81	
			For Hot Dip Galvanized, Add	62.58	
40 05 19 00-2066	EA		16" Pipe Diameter, Ductile Iron Flange Bolt Pack	263.00	
			Note: Includes sixteen (16) 1" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	73.64	
			For Hot Dip Galvanized, Add	105.20	
40 05 19 00-2067	EA		18" Pipe Diameter, Ductile Iron Flange Bolt Pack	382.08	
			Note: Includes sixteen (16) 1-1/8" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	106.98	
			For Hot Dip Galvanized, Add	152.83	
40 05 19 00-2068	EA		20" Pipe Diameter, Ductile Iron Flange Bolt Pack	482.42	
			Note: Includes twenty (20) 1-1/8" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	135.08	
			For Hot Dip Galvanized, Add	192.97	
40 05 19 00-2069	EA		24" Pipe Diameter, Ductile Iron Flange Bolt Pack	690.25	
			Note: Includes twenty (20) 1-1/4" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	193.27	
			For Hot Dip Galvanized, Add	276.10	
40 05 19 00-2070	EA		30" Pipe Diameter, Ductile Iron Flange Bolt Pack	1,090.70	
			Note: Includes twenty-eight (28) 1-1/4" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	305.40	
			For Hot Dip Galvanized, Add	436.28	
40 05 19 00-2071	EA		36" Pipe Diameter, Ductile Iron Flange Bolt Pack	1,555.91	
			Note: Includes thirty-two (32) 1-1/2" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	435.65	
			For Hot Dip Galvanized, Add	622.36	
40 05 19 00-2072	EA		42" Pipe Diameter, Ductile Iron Flange Bolt Pack	2,001.64	
			Note: Includes thirty-six (36) 1-1/2" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	560.46	
			For Hot Dip Galvanized, Add	800.66	
40 05 19 00-2073	EA		48" Pipe Diameter, Ductile Iron Flange Bolt Pack	2,446.44	
			Note: Includes forty-four (44) 1-1/2" diameter plain finish bolts with washers and nut.		
			For Zinc Plated, Add	685.00	
			For Hot Dip Galvanized, Add	978.58	
40 05 19 00-2074			Full Face Flange Gaskets, ANSI/AWWA C115/A21.15 ^(40 05 19)		
			Note: Labor installation is included with pipe fittings or valves.		
40 05 19 00-2075			Full Face Flange Styrene Butadiene (SBR) Gaskets ^(40 05 19 00-2074)		
40 05 19 00-2076	EA		4" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick	6.15	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2077 EA 6" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick	7.82	
40 05 19 00-2078 EA 8" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick	10.62	
40 05 19 00-2079 EA 10" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick	12.29	
40 05 19 00-2080 EA 12" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick	13.41	
40 05 19 00-2081 EA 14" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick	22.35	
40 05 19 00-2082 EA 16" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick	27.38	
40 05 19 00-2083 EA 18" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick	29.06	
40 05 19 00-2084 EA 20" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick	44.70	
40 05 19 00-2085 EA 24" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick	48.05	
40 05 19 00-2086 EA 30" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick	62.02	
40 05 19 00-2087 EA 36" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick	70.96	
40 05 19 00-2088 EA 42" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick	75.99	
40 05 19 00-2089 EA 48" Full Face Flange Styrene Butadiene (SBR) Gasket, 1/8" Thick	83.25	
40 05 19 00-2090 Full Face Flange Nitrile Buna-N (NBR) Gaskets (40 05 19 00-2074)		
Note: (Acrylonitrile Butadiene)		
40 05 19 00-2091 EA 4" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick	19.00	
40 05 19 00-2092 EA 6" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick	26.82	
40 05 19 00-2093 EA 8" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick	41.35	
40 05 19 00-2094 EA 10" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick	45.26	
40 05 19 00-2095 EA 12" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick	48.61	
40 05 19 00-2096 EA 14" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick	91.64	
40 05 19 00-2097 EA 16" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick	112.87	
40 05 19 00-2098 EA 18" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick	113.43	
40 05 19 00-2099 EA 20" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick	117.90	
40 05 19 00-2100 EA 24" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick	124.60	
40 05 19 00-2101 EA 30" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick	138.01	
40 05 19 00-2102 EA 36" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick	151.98	
40 05 19 00-2103 EA 42" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick	216.24	
40 05 19 00-2104 EA 48" Full Face Flange Nitrile (NBR) Gasket, 1/8" Thick	236.35	
40 05 19 00-2105 Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gaskets (40 05 19 00-2074)		
40 05 19 00-2106 EA 4" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick	16.76	
40 05 19 00-2107 EA 6" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick	21.79	
40 05 19 00-2108 EA 8" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick	29.61	
40 05 19 00-2109 EA 10" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick	34.64	
40 05 19 00-2110 EA 12" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick	38.55	
40 05 19 00-2111 EA 14" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick	63.70	
40 05 19 00-2112 EA 16" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick	76.55	
40 05 19 00-2113 EA 18" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick	77.11	
40 05 19 00-2114 EA 20" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick	78.78	
40 05 19 00-2115 EA 24" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick	91.64	
40 05 19 00-2116 EA 30" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick	112.31	
40 05 19 00-2117 EA 36" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick	127.95	
40 05 19 00-2118 EA 42" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick	183.27	
40 05 19 00-2119 EA 48" Full Face Flange Ethylene Propylene Diene Monomer (EPDM) Gasket, 1/8" Thick	202.27	
40 05 19 00-2120 Full Face Flange Neoprene Gaskets (40 05 19 00-2074)		
Note: (Polychloroprene)		
40 05 19 00-2121 EA 4" Full Face Flange Neoprene Gasket, 1/8" Thick	19.56	
40 05 19 00-2122 EA 6" Full Face Flange Neoprene Gasket, 1/8" Thick	27.38	
40 05 19 00-2123 EA 8" Full Face Flange Neoprene Gasket, 1/8" Thick	41.91	
40 05 19 00-2124 EA 10" Full Face Flange Neoprene Gasket, 1/8" Thick	45.26	
40 05 19 00-2125 EA 12" Full Face Flange Neoprene Gasket, 1/8" Thick	48.61	
40 05 19 00-2126 EA 14" Full Face Flange Neoprene Gasket, 1/8" Thick	64.82	
40 05 19 00-2127 EA 16" Full Face Flange Neoprene Gasket, 1/8" Thick	113.98	
40 05 19 00-2128 EA 18" Full Face Flange Neoprene Gasket, 1/8" Thick	114.54	
40 05 19 00-2129 EA 20" Full Face Flange Neoprene Gasket, 1/8" Thick	121.25	
40 05 19 00-2130 EA 24" Full Face Flange Neoprene Gasket, 1/8" Thick	122.92	
40 05 19 00-2131 EA 30" Full Face Flange Neoprene Gasket, 1/8" Thick	133.54	
40 05 19 00-2132 EA 36" Full Face Flange Neoprene Gasket, 1/8" Thick	150.30	
40 05 19 00-2133 EA 42" Full Face Flange Neoprene Gasket, 1/8" Thick	217.91	
40 05 19 00-2134 EA 48" Full Face Flange Neoprene Gasket, 1/8" Thick	238.59	
40 05 19 00-2135 Full Face Flange FKM Gaskets (40 05 19 00-2074)		
Note: (Fluoroelastomer Fluorel Viton®)		
40 05 19 00-2136 EA 4" Full Face Flange FKM Gasket, 1/8" Thick	57.07	
40 05 19 00-2137 EA 6" Full Face Flange FKM Gasket, 1/8" Thick	84.98	
40 05 19 00-2138 EA 8" Full Face Flange FKM Gasket, 1/8" Thick	113.51	
40 05 19 00-2139 EA 10" Full Face Flange FKM Gasket, 1/8" Thick	136.98	
40 05 19 00-2140 EA 12" Full Face Flange FKM Gasket, 1/8" Thick	178.20	
40 05 19 00-2141 EA 14" Full Face Flange FKM Gasket, 1/8" Thick	325.95	
40 05 19 00-2142 EA 16" Full Face Flange FKM Gasket, 1/8" Thick	373.51	
40 05 19 00-2143 EA 18" Full Face Flange FKM Gasket, 1/8" Thick	391.27	
40 05 19 00-2144 EA 20" Full Face Flange FKM Gasket, 1/8" Thick	417.27	
40 05 19 00-2145 EA 24" Full Face Flange FKM Gasket, 1/8" Thick	577.08	
40 05 19 00-2146 EA 30" Full Face Flange FKM Gasket, 1/8" Thick	691.86	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 19 Ductile Iron Process Pipe**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 19 00-2147	EA		36" Full Face Flange FKM Gasket, 1/8" Thick.....	729.91	
40 05 19 00-2148	EA		42" Full Face Flange FKM Gasket, 1/8" Thick.....	910.01	
40 05 19 00-2149	EA		48" Full Face Flange FKM Gasket, 1/8" Thick.....	953.76	
40 05 19 00-2150			Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100) (40 05 19)		
40 05 19 00-2151	EA		4" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	287.81	61.02
40 05 19 00-2152	EA		6" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	396.44	74.48
40 05 19 00-2153	EA		8" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	581.79	90.85
40 05 19 00-2154	EA		10" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	795.47	110.83
40 05 19 00-2155	EA		12" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	1,008.49	135.14
40 05 19 00-2156	EA		14" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	1,606.68	164.89
40 05 19 00-2157	EA		16" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	2,511.64	201.22
40 05 19 00-2158	EA		18" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	2,603.22	245.43
40 05 19 00-2159	EA		20" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	3,188.94	299.49
40 05 19 00-2160	EA		24" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	3,561.44	365.29
40 05 19 00-2161	EA		30" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	4,583.36	445.74
40 05 19 00-2162	EA		36" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	6,782.87	543.73
40 05 19 00-2163	EA		42" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	17,486.24	663.42
40 05 19 00-2164	EA		48" Restrained Flange Adapter For Ductile Iron Pipe (Megaflange 2100).....	22,325.61	809.31
40 05 23			Stainless Steel Process Pipe and Tubing (40 05)		
40 05 23 23			300- and 400-Series Stainless Steel Process Pipe (40 05 23)		
40 05 23 23-0001			Schedule 40 Pipe, Type 304, With 150 LB Screwed Fittings Assembly (40 05 23)		
			²³⁾ Note: Includes hangers and fittings. Fittings are assumed every 10'. Not for use where detail is available.		
40 05 23 23-0002	LF		1/2" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly.....	27.12	7.90
			Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
			For Type 316, Add	2.92	
			For Work In Restricted Working Space, Add	4.76	
40 05 23 23-0003	LF		3/4" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly.....	30.65	9.06
			Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
			For Type 316, Add	3.06	
			For Work In Restricted Working Space, Add	5.66	
40 05 23 23-0004	LF		1" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly.....	35.68	10.22
			Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
			For Type 316, Add	3.59	
			For Work In Restricted Working Space, Add	6.56	
40 05 23 23-0005	LF		1-1/4" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly.....	40.99	12.34
			Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
			For Type 316, Add	4.53	
			For Work In Restricted Working Space, Add	7.07	
40 05 23 23-0006	LF		1-1/2" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly.....	45.22	12.69
			Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
			For Type 316, Add	5.19	
			For Work In Restricted Working Space, Add	7.58	
40 05 23 23-0007	LF		2" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly.....	54.78	16.77
			Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
			For Type 316, Add	6.33	
			For Work In Restricted Working Space, Add	9.14	
40 05 23 23-0008	LF		2-1/2" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly.....	79.56	20.68
			Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
			For Type 316, Add	10.88	
			For Work In Restricted Working Space, Add	11.31	
40 05 23 23-0009	LF		3" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly.....	100.63	23.97
			Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
			For Type 316, Add	14.17	
			For Work In Restricted Working Space, Add	13.84	
40 05 23 23-0010	LF		4" Stainless Steel Pipe, Schedule 40 Type 304 With 150 LB Screwed Fitting Assembly.....	137.02	23.97
			Note: Includes all fittings and hangers. Fittings are assumed every 10'. Not for use where detail is available.		
			For Work In Restricted Working Space, Add	17.56	
40 05 23 23-0011			Stainless Steel Tubing And Fittings (40 05 23 23)		
40 05 23 23-0012			Type 304 Tubing (40 05 23 23-0011)		
40 05 23 23-0013			0.035" Wall (40 05 23 23-0012)		
40 05 23 23-0014	LF		1/4", 0.035" Wall, Type 304, Stainless Steel Tubing.....	6.99	2.61
			For Work In Restricted Working Space, Add	1.55	
40 05 23 23-0015	LF		3/8", 0.035" Wall, Type 304, Stainless Steel Tubing.....	8.10	3.09
			For Work In Restricted Working Space, Add	1.86	
40 05 23 23-0016	LF		1/2", 0.035" Wall, Type 304, Stainless Steel Tubing.....	9.68	3.66
			For Work In Restricted Working Space, Add	2.18	
40 05 23 23-0017	LF		5/8", 0.035" Wall, Type 304, Stainless Steel Tubing.....	15.70	4.14
			For Work In Restricted Working Space, Add	2.48	
40 05 23 23-0018	LF		3/4", 0.035" Wall, Type 304, Stainless Steel Tubing.....	18.60	4.63
			For Work In Restricted Working Space, Add	2.80	
40 05 23 23-0019	LF		7/8", 0.035" Wall, Type 304, Stainless Steel Tubing.....	20.57	5.21
			For Work In Restricted Working Space, Add	3.11	
40 05 23 23-0020	LF		1", 0.035" Wall, Type 304, Stainless Steel Tubing.....	23.02	6.27
			For Work In Restricted Working Space, Add	3.73	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0021 0.049" Wall <small>(40 05 23 23-0012)</small>		
40 05 23 23-0022 LF 1/4", 0.049" Wall, Type 304, Stainless Steel Tubing	11.59	3.09
<i>For Work In Restricted Working Space, Add</i>	1.86	
40 05 23 23-0023 LF 3/8", 0.049" Wall, Type 304, Stainless Steel Tubing	12.92	3.66
<i>For Work In Restricted Working Space, Add</i>	2.78	
40 05 23 23-0024 LF 1/2", 0.049" Wall, Type 304, Stainless Steel Tubing	15.53	4.14
<i>For Work In Restricted Working Space, Add</i>	2.48	
40 05 23 23-0025 LF 5/8", 0.049" Wall, Type 304, Stainless Steel Tubing	19.64	5.21
<i>For Work In Restricted Working Space, Add</i>	3.11	
40 05 23 23-0026 LF 3/4", 0.049" Wall, Type 304, Stainless Steel Tubing	22.49	6.27
<i>For Work In Restricted Working Space, Add</i>	3.73	
40 05 23 23-0027 LF 7/8", 0.049" Wall, Type 304, Stainless Steel Tubing	25.28	7.23
<i>For Work In Restricted Working Space, Add</i>	4.35	
40 05 23 23-0028 LF 1", 0.049" Wall, Type 304, Stainless Steel Tubing	29.16	8.20
<i>For Work In Restricted Working Space, Add</i>	4.94	
40 05 23 23-0029 0.065" Wall <small>(40 05 23 23-0012)</small>		
40 05 23 23-0030 LF 1/4", 0.065" Wall, Type 304, Stainless Steel Tubing	13.53	3.66
<i>For Work In Restricted Working Space, Add</i>	2.18	
40 05 23 23-0031 LF 3/8", 0.065" Wall, Type 304, Stainless Steel Tubing	15.57	4.14
<i>For Work In Restricted Working Space, Add</i>	2.48	
40 05 23 23-0032 LF 1/2", 0.065" Wall, Type 304, Stainless Steel Tubing	19.19	5.21
<i>For Work In Restricted Working Space, Add</i>	3.11	
40 05 23 23-0033 LF 5/8", 0.065" Wall, Type 304, Stainless Steel Tubing	22.57	6.27
<i>For Work In Restricted Working Space, Add</i>	3.73	
40 05 23 23-0034 LF 3/4", 0.065" Wall, Type 304, Stainless Steel Tubing	26.62	7.23
<i>For Work In Restricted Working Space, Add</i>	4.35	
40 05 23 23-0035 LF 7/8", 0.065" Wall, Type 304, Stainless Steel Tubing	30.58	8.20
<i>For Work In Restricted Working Space, Add</i>	4.94	
40 05 23 23-0036 LF 1", 0.065" Wall, Type 304, Stainless Steel Tubing	34.47	9.26
<i>For Work In Restricted Working Space, Add</i>	5.56	
40 05 23 23-0037 Type 304 Tube Fittings <small>(40 05 23 23-0011)</small>		
40 05 23 23-0038 90 Degree Elbows <small>(40 05 23 23-0037)</small>		
40 05 23 23-0039 EA 1/4", Type 304, Stainless Steel, 90 Degree Elbow	43.65	10.41
<i>For Work In Restricted Working Space, Add</i>	6.22	
40 05 23 23-0040 EA 3/8", Type 304, Stainless Steel, 90 Degree Elbow	51.58	11.38
<i>For Work In Restricted Working Space, Add</i>	6.81	
40 05 23 23-0041 EA 1/2", Type 304, Stainless Steel, 90 Degree Elbow	77.52	12.83
<i>For Work In Restricted Working Space, Add</i>	7.71	
40 05 23 23-0042 EA 5/8", Type 304, Stainless Steel, 90 Degree Elbow	82.83	14.37
<i>For Work In Restricted Working Space, Add</i>	8.63	
40 05 23 23-0043 EA 3/4", Type 304, Stainless Steel, 90 Degree Elbow	92.63	15.52
<i>For Work In Restricted Working Space, Add</i>	9.33	
40 05 23 23-0044 EA 7/8", Type 304, Stainless Steel, 90 Degree Elbow	126.36	17.25
<i>For Work In Restricted Working Space, Add</i>	10.33	
40 05 23 23-0045 EA 1", Type 304, Stainless Steel, 90 Degree Elbow	160.84	20.53
<i>For Work In Restricted Working Space, Add</i>	12.31	
40 05 23 23-0046 Union Tees <small>(40 05 23 23-0037)</small>		
40 05 23 23-0047 EA 1/4", Type 304, Stainless Steel, Union Tee	69.21	15.52
<i>For Work In Restricted Working Space, Add</i>	9.33	
40 05 23 23-0048 EA 3/8", Type 304, Stainless Steel, Union Tee	83.88	17.25
<i>For Work In Restricted Working Space, Add</i>	10.33	
40 05 23 23-0049 EA 1/2", Type 304, Stainless Steel, Union Tee	114.41	19.29
<i>For Work In Restricted Working Space, Add</i>	11.57	
40 05 23 23-0050 EA 5/8", Type 304, Stainless Steel, Union Tee	123.16	21.88
<i>For Work In Restricted Working Space, Add</i>	13.15	
40 05 23 23-0051 EA 3/4", Type 304, Stainless Steel, Union Tee	157.13	23.52
<i>For Work In Restricted Working Space, Add</i>	14.11	
40 05 23 23-0052 EA 7/8", Type 304, Stainless Steel, Union Tee	249.14	26.04
<i>For Work In Restricted Working Space, Add</i>	15.63	
40 05 23 23-0053 EA 1", Type 304, Stainless Steel, Union Tee	298.59	31.14
<i>For Work In Restricted Working Space, Add</i>	18.66	
40 05 23 23-0054 Unions <small>(40 05 23 23-0037)</small>		
40 05 23 23-0055 EA 1/4", Type 304, Stainless Steel, Union	66.18	15.52
<i>For Work In Restricted Working Space, Add</i>	9.33	
40 05 23 23-0056 EA 3/8", Type 304, Stainless Steel, Union	85.59	17.25
<i>For Work In Restricted Working Space, Add</i>	10.33	
40 05 23 23-0057 EA 1/2", Type 304, Stainless Steel, Union	115.53	19.29
<i>For Work In Restricted Working Space, Add</i>	11.57	
40 05 23 23-0058 EA 5/8", Type 304, Stainless Steel, Union	140.77	21.88
<i>For Work In Restricted Working Space, Add</i>	13.15	
40 05 23 23-0059 EA 3/4", Type 304, Stainless Steel, Union	167.85	23.52
<i>For Work In Restricted Working Space, Add</i>	14.11	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23	23-0060	EA	7/8", Type 304, Stainless Steel, Union <i>For Work In Restricted Working Space, Add</i>	257.69 15.63	26.04
40 05 23	23-0061	EA	1", Type 304, Stainless Steel, Union <i>For Work In Restricted Working Space, Add</i>	274.36 18.66	31.14
40 05 23	23-0062		Male Connectors (40 05 23 23-0037)		
40 05 23	23-0063	EA	1/4" x 1/4", Type 304, Stainless Steel, Male Connection <i>For Work In Restricted Working Space, Add</i>	32.79 6.22	10.41
40 05 23	23-0064	EA	3/8" x 3/8", Type 304, Stainless Steel, Male Connection <i>For Work In Restricted Working Space, Add</i>	40.91 6.81	11.38
40 05 23	23-0065	EA	1/2" x 1/2", Type 304, Stainless Steel, Male Connection <i>For Work In Restricted Working Space, Add</i>	52.97 7.71	12.83
40 05 23	23-0066	EA	5/8" x 5/8" Male Connection, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	59.69 8.63	14.37
40 05 23	23-0067	EA	3/4" x 3/4", Type 304, Stainless Steel, Male Connection <i>For Work In Restricted Working Space, Add</i>	72.06 9.33	15.52
40 05 23	23-0068	EA	7/8" x 7/8", Type 304, Stainless Steel, Male Connection <i>For Work In Restricted Working Space, Add</i>	108.32 10.33	17.25
40 05 23	23-0069	EA	1" x 1", Type 304, Stainless Steel, Male Connection <i>For Work In Restricted Working Space, Add</i>	113.52 12.31	20.53
40 05 23	23-0070		Type 304 Valves (40 05 23 23-0011)		
40 05 23	23-0071		Gate Valves (40 05 23 23-0070)		
40 05 23	23-0072	EA	1/4" Gate Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	162.69 8.42	15.52
40 05 23	23-0073	EA	3/8" Gate Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	272.28 8.87	18.22
40 05 23	23-0074	EA	1/2" Gate Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	283.76 12.31	20.53
40 05 23	23-0075	EA	3/4" Gate Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	314.71 14.11	23.52
40 05 23	23-0076	EA	1" Gate Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	290.88 18.66	31.14
40 05 23	23-0077		Globe Valves (40 05 23 23-0070)		
40 05 23	23-0078	EA	1/4" Globe Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	164.90 8.42	15.52
40 05 23	23-0079	EA	3/8" Globe Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	110.08 8.87	18.22
40 05 23	23-0080	EA	1/2" Globe Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	196.52 12.31	20.53
40 05 23	23-0081	EA	3/4" Globe Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	218.90 14.11	23.52
40 05 23	23-0082	EA	1" Globe Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	318.65 18.66	31.14
40 05 23	23-0083		Check Valves (40 05 23 23-0070)		
40 05 23	23-0084	EA	1/4" Check Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	229.71 8.42	15.52
40 05 23	23-0085	EA	3/8" Check Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	231.18 8.87	18.22
40 05 23	23-0086	EA	1/2" Check Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	153.74 12.31	20.53
40 05 23	23-0087	EA	3/4" Check Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	161.37 14.11	23.52
40 05 23	23-0088	EA	1" Check Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	179.81 18.66	31.14
40 05 23	23-0089		Plug Valves (40 05 23 23-0070)		
40 05 23	23-0090	EA	1/2" Plug Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	355.04 12.31	20.53
40 05 23	23-0091	EA	3/4" Plug Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	388.95 14.11	23.52
40 05 23	23-0092	EA	1" Plug Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	441.34 18.66	31.14
40 05 23	23-0093	EA	1-1/2" Plug Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	611.29 21.11	35.19
40 05 23	23-0094	EA	2" Plug Valve, Stainless Steel Type 304 <i>For Work In Restricted Working Space, Add</i>	796.52 28.92	48.21
40 05 23	23-0095		Type 316 Tubing (40 05 23 23-0011)		
40 05 23	23-0096		0.035" Wall (40 05 23 23-0095)		
40 05 23	23-0097	LF	1/4" Stainless Steel Tubing, Type 316, 0.035" Wall <i>For Work In Restricted Working Space, Add</i>	7.27 1.55	2.61



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0098 LF 3/8" Stainless Steel Tubing, Type 316, 0.035" Wall <i>For Work In Restricted Working Space, Add</i>	9.46 1.86	3.09
40 05 23 23-0099 LF 1/2" Stainless Steel Tubing, Type 316, 0.035" Wall <i>For Work In Restricted Working Space, Add</i>	10.51 2.18	3.66
40 05 23 23-0100 LF 5/8" Stainless Steel Tubing, Type 316, 0.035" Wall <i>For Work In Restricted Working Space, Add</i>	17.89 2.48	4.14
40 05 23 23-0101 LF 3/4" Stainless Steel Tubing, Type 316, 0.035" Wall <i>For Work In Restricted Working Space, Add</i>	20.30 2.80	4.63
40 05 23 23-0102 LF 7/8" Stainless Steel Tubing, Type 316, 0.035" Wall <i>For Work In Restricted Working Space, Add</i>	25.80 3.11	5.21
40 05 23 23-0103 LF 1" Stainless Steel Tubing, Type 316, 0.035" Wall <i>For Work In Restricted Working Space, Add</i>	27.07 3.73	6.27
40 05 23 23-0104 0.049" Wall <small>(40 05 23 23-0095)</small>		
40 05 23 23-0105 LF 1/4" Stainless Steel Tubing, Type 316, 0.049" Wall <i>For Work In Restricted Working Space, Add</i>	12.76 1.86	3.09
40 05 23 23-0106 LF 3/8" Stainless Steel Tubing, Type 316, 0.049" Wall <i>For Work In Restricted Working Space, Add</i>	14.15 2.18	3.66
40 05 23 23-0107 LF 1/2" Stainless Steel Tubing, Type 316, 0.049" Wall <i>For Work In Restricted Working Space, Add</i>	16.69 2.48	4.14
40 05 23 23-0108 LF 5/8" Stainless Steel Tubing, Type 316, 0.049" Wall <i>For Work In Restricted Working Space, Add</i>	21.77 3.11	5.21
40 05 23 23-0109 LF 3/4" Stainless Steel Tubing, Type 316, 0.049" Wall <i>For Work In Restricted Working Space, Add</i>	25.14 3.73	6.27
40 05 23 23-0110 LF 7/8" Stainless Steel Tubing, Type 316, 0.049" Wall <i>For Work In Restricted Working Space, Add</i>	32.08 4.35	7.23
40 05 23 23-0111 LF 1" Stainless Steel Tubing, Type 316, 0.049" Wall <i>For Work In Restricted Working Space, Add</i>	32.73 4.94	8.20
40 05 23 23-0112 0.065" Wall <small>(40 05 23 23-0095)</small>		
40 05 23 23-0113 LF 1/4" Stainless Steel Tubing, Type 316, 0.065" Wall <i>For Work In Restricted Working Space, Add</i>	14.93 2.18	3.66
40 05 23 23-0114 LF 3/8" Stainless Steel Tubing, Type 316, 0.065" Wall <i>For Work In Restricted Working Space, Add</i>	16.64 2.48	4.14
40 05 23 23-0115 LF 1/2" Stainless Steel Tubing, Type 316, 0.065" Wall <i>For Work In Restricted Working Space, Add</i>	20.87 3.11	5.21
40 05 23 23-0116 LF 5/8" Stainless Steel Tubing, Type 316, 0.065" Wall <i>For Work In Restricted Working Space, Add</i>	24.88 3.73	6.27
40 05 23 23-0117 LF 3/4" Stainless Steel Tubing, Type 316, 0.065" Wall <i>For Work In Restricted Working Space, Add</i>	30.15 4.35	7.23
40 05 23 23-0118 LF 7/8" Stainless Steel Tubing, Type 316, 0.065" Wall <i>For Work In Restricted Working Space, Add</i>	33.21 4.94	8.20
40 05 23 23-0119 LF 1" Stainless Steel Tubing, Type 316, 0.065" Wall <i>For Work In Restricted Working Space, Add</i>	38.70 5.56	9.26
40 05 23 23-0120 Type 316 Tube Fittings <small>(40 05 23 23-0011)</small>		
40 05 23 23-0121 90 Degree Elbows <small>(40 05 23 23-0120)</small>		
40 05 23 23-0122 EA 1/4" 90 Degree Elbow, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	60.19 6.22	10.41
40 05 23 23-0123 EA 3/8" 90 Degree Elbow, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	72.45 6.81	11.38
40 05 23 23-0124 EA 1/2" 90 Degree Elbow, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	114.93 7.71	12.83
40 05 23 23-0125 EA 5/8" 90 Degree Elbow, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	121.86 8.63	14.37
40 05 23 23-0126 EA 3/4" 90 Degree Elbow, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	137.05 9.33	15.52
40 05 23 23-0127 EA 7/8" 90 Degree Elbow, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	192.72 10.33	17.25
40 05 23 23-0128 EA 1" 90 Degree Elbow, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	247.35 12.31	20.53
40 05 23 23-0129 Union Tees <small>(40 05 23 23-0120)</small>		
40 05 23 23-0130 EA 1/4" Union Tee, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	96.73 9.33	15.52
40 05 23 23-0131 EA 3/8" Union Tee, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	119.58 10.33	17.25
40 05 23 23-0132 EA 1/2" Union Tee, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	169.17 11.57	19.29
40 05 23 23-0133 EA 5/8" Union Tee, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	180.43 13.15	21.88
40 05 23 23-0134 EA 3/4" Union Tee, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	236.62 14.11	23.52
40 05 23 23-0135 EA 7/8" Union Tee, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	391.39 15.63	26.04
40 05 23 23-0136 EA 1" Union Tee, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	469.25 18.66	31.14

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23	23-0137		Unions (40 05 23 23-0120)		
40 05 23	23-0138	EA	1/4" Union, Stainless Steel Type 316.....	61.98	15.52
			<i>For Work In Restricted Working Space, Add</i>	9.33	
40 05 23	23-0139	EA	3/8" Union, Stainless Steel Type 316.....	79.48	17.25
			<i>For Work In Restricted Working Space, Add</i>	10.33	
40 05 23	23-0140	EA	1/2" Union, Stainless Steel Type 316.....	106.33	19.29
			<i>For Work In Restricted Working Space, Add</i>	11.57	
40 05 23	23-0141	EA	5/8" Union, Stainless Steel Type 316.....	129.18	21.88
			<i>For Work In Restricted Working Space, Add</i>	13.15	
40 05 23	23-0142	EA	3/4" Union, Stainless Steel Type 316.....	153.40	23.52
			<i>For Work In Restricted Working Space, Add</i>	14.11	
40 05 23	23-0143	EA	7/8" Union, Stainless Steel Type 316.....	233.12	26.04
			<i>For Work In Restricted Working Space, Add</i>	15.63	
40 05 23	23-0144	EA	1" Union, Stainless Steel Type 316.....	249.00	31.14
			<i>For Work In Restricted Working Space, Add</i>	18.66	
40 05 23	23-0145		Male Connectors (40 05 23 23-0120)		
40 05 23	23-0146	EA	1/4" x 1/4" Male Connector, Stainless Steel Type 316.....	41.32	10.41
			<i>For Work In Restricted Working Space, Add</i>	6.22	
40 05 23	23-0147	EA	3/8" x 3/8" Male Connector, Stainless Steel Type 316.....	53.79	11.38
			<i>For Work In Restricted Working Space, Add</i>	6.81	
40 05 23	23-0148	EA	1/2" x 1/2" Male Connector, Stainless Steel Type 316.....	72.25	12.83
			<i>For Work In Restricted Working Space, Add</i>	7.71	
40 05 23	23-0149	EA	5/8" x 5/8" Male Connector, Stainless Steel Type 316.....	81.54	14.37
			<i>For Work In Restricted Working Space, Add</i>	8.63	
40 05 23	23-0150	EA	3/4" x 3/4" Male Connector, Stainless Steel Type 316.....	101.02	15.52
			<i>For Work In Restricted Working Space, Add</i>	9.33	
40 05 23	23-0151	EA	7/8" x 7/8" Male Connector, Stainless Steel Type 316.....	160.55	17.25
			<i>For Work In Restricted Working Space, Add</i>	10.33	
40 05 23	23-0152	EA	1" x 1" Male Connector, Stainless Steel Type 316.....	164.78	20.53
			<i>For Work In Restricted Working Space, Add</i>	12.31	
40 05 23	23-0153		Type 316 Valves (40 05 23 23-0011)		
40 05 23	23-0154		Gate Valves (40 05 23 23-0153)		
40 05 23	23-0155	EA	1/4" Gate Valve, Stainless Steel Type 316.....	206.15	15.52
			<i>For Work In Restricted Working Space, Add</i>	8.42	
40 05 23	23-0156	EA	3/8" Gate Valve, Stainless Steel Type 316.....	350.65	18.22
			<i>For Work In Restricted Working Space, Add</i>	8.87	
40 05 23	23-0157	EA	1/2" Gate Valve, Stainless Steel Type 316.....	362.13	20.53
			<i>For Work In Restricted Working Space, Add</i>	12.31	
40 05 23	23-0158	EA	3/4" Gate Valve, Stainless Steel Type 316.....	401.14	23.52
			<i>For Work In Restricted Working Space, Add</i>	14.11	
40 05 23	23-0159	EA	1" Gate Valve, Stainless Steel Type 316.....	364.71	31.14
			<i>For Work In Restricted Working Space, Add</i>	18.66	
40 05 23	23-0160	EA	1-1/4" Gate Valve, Stainless Steel Type 316.....	499.38	32.29
			<i>For Work In Restricted Working Space, Add</i>	19.38	
40 05 23	23-0161	EA	1-1/2" Gate Valve, Stainless Steel Type 316.....	799.64	35.19
			<i>For Work In Restricted Working Space, Add</i>	21.11	
40 05 23	23-0162	EA	2" Gate Valve, Stainless Steel Type 316.....	952.09	48.21
			<i>For Work In Restricted Working Space, Add</i>	28.92	
40 05 23	23-0163	EA	2-1/2" Gate Valve, Stainless Steel Type 316.....	1,426.85	154.36
			<i>For Work In Restricted Working Space, Add</i>	92.59	
40 05 23	23-0164		Globe Valves (40 05 23 23-0153)		
40 05 23	23-0165	EA	1/4" Globe Valve, Stainless Steel Type 316.....	209.07	15.52
			<i>For Work In Restricted Working Space, Add</i>	8.42	
40 05 23	23-0166	EA	3/8" Globe Valve, Stainless Steel Type 316.....	136.08	18.22
			<i>For Work In Restricted Working Space, Add</i>	8.87	
40 05 23	23-0167	EA	1/2" Globe Valve, Stainless Steel Type 316.....	246.72	20.53
			<i>For Work In Restricted Working Space, Add</i>	12.31	
40 05 23	23-0168	EA	3/4" Globe Valve, Stainless Steel Type 316.....	274.39	23.52
			<i>For Work In Restricted Working Space, Add</i>	14.11	
40 05 23	23-0169	EA	1" Globe Valve, Stainless Steel Type 316.....	401.45	31.14
			<i>For Work In Restricted Working Space, Add</i>	18.66	
40 05 23	23-0170	EA	1-1/4" Globe Valve, Stainless Steel Type 316.....	500.30	32.10
			<i>For Work In Restricted Working Space, Add</i>	19.24	
40 05 23	23-0171	EA	1-1/2" Globe Valve, Stainless Steel Type 316.....	828.81	35.19
			<i>For Work In Restricted Working Space, Add</i>	21.11	
40 05 23	23-0172	EA	2" Globe Valve, Stainless Steel Type 316.....	981.26	48.21
			<i>For Work In Restricted Working Space, Add</i>	28.92	
40 05 23	23-0173	EA	2-1/2" Globe Valve, Stainless Steel Type 316.....	1,242.10	154.36
			<i>For Work In Restricted Working Space, Add</i>	92.59	
40 05 23	23-0174		Check Valves (40 05 23 23-0153)		
40 05 23	23-0175	EA	1/4" Check Valve, Stainless Steel Type 316.....	294.81	15.52
			<i>For Work In Restricted Working Space, Add</i>	8.42	
40 05 23	23-0176	EA	3/8" Check Valve, Stainless Steel Type 316.....	296.28	18.22
			<i>For Work In Restricted Working Space, Add</i>	8.87	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0177 EA 1/2" Check Valve, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	190.13 12.31	20.53
40 05 23 23-0178 EA 3/4" Check Valve, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	198.29 14.11	23.52
40 05 23 23-0179 EA 1" Check Valve, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	217.78 18.66	31.14
40 05 23 23-0180 EA 1-1/4" Check Valve, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	299.72 19.38	32.29
40 05 23 23-0181 EA 1-1/2" Check Valve, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	663.51 21.11	35.19
40 05 23 23-0182 EA 2" Check Valve, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	806.24 28.92	48.21
40 05 23 23-0183 EA 2-1/2" Check Valve, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	1,605.12 92.59	154.36
40 05 23 23-0184 Diaphragm Valves, Ethylene Propylene Diene Monomer (EPDM) Lined (40 05 23 23-0153)		
40 05 23 23-0185 EA 1/2" Diaphragm Valve, Stainless Steel Type 316, Ethylene Propylene Diene Monomer (EPDM) Lined <i>For Work In Restricted Working Space, Add</i>	317.46 12.31	20.53
40 05 23 23-0186 EA 3/4" Diaphragm Valve, Stainless Steel Type 316, Ethylene Propylene Diene Monomer (EPDM) Lined <i>For Work In Restricted Working Space, Add</i>	370.78 14.11	23.52
40 05 23 23-0187 EA 1" Diaphragm Valve, Stainless Steel Type 316, Ethylene Propylene Diene Monomer (EPDM) Lined <i>For Work In Restricted Working Space, Add</i>	473.05 18.66	31.14
40 05 23 23-0188 EA 1-1/2" Diaphragm Valve, Stainless Steel Type 316, Ethylene Propylene Diene Monomer (EPDM) Lined <i>For Work In Restricted Working Space, Add</i>	751.96 21.11	35.19
40 05 23 23-0189 EA 2" Diaphragm Valve, Stainless Steel Type 316, Ethylene Propylene Diene Monomer (EPDM) Lined <i>For Work In Restricted Working Space, Add</i>	1,050.64 28.92	48.21
40 05 23 23-0190 Diaphragm Valves, Teflon Lined (40 05 23 23-0153)		
40 05 23 23-0191 EA 1/2" Diaphragm Valve, Stainless Steel Type 316, Teflon Lined <i>For Work In Restricted Working Space, Add</i>	419.69 12.31	20.53
40 05 23 23-0192 EA 3/4" Diaphragm Valve, Stainless Steel Type 316, Teflon Lined <i>For Work In Restricted Working Space, Add</i>	482.49 14.11	23.52
40 05 23 23-0193 EA 1" Diaphragm Valve, Stainless Steel Type 316, Teflon Lined <i>For Work In Restricted Working Space, Add</i>	584.76 18.66	31.14
40 05 23 23-0194 EA 1-1/2" Diaphragm Valve, Stainless Steel Type 316, Teflon Lined <i>For Work In Restricted Working Space, Add</i>	909.10 21.11	35.19
40 05 23 23-0195 EA 2" Diaphragm Valve, Stainless Steel Type 316, Teflon Lined <i>For Work In Restricted Working Space, Add</i>	1,238.08 28.92	48.21
40 05 23 23-0196 Strainers (40 05 23 23-0153)		
40 05 23 23-0197 EA 1/2" Strainer, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	420.68 12.31	20.53
40 05 23 23-0198 EA 3/4" Strainer, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	503.33 14.17	23.62
40 05 23 23-0199 EA 1" Strainer, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	658.62 18.80	31.34
40 05 23 23-0200 EA 1-1/4" Strainer, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	817.02 19.38	32.29
40 05 23 23-0201 EA 1-1/2" Strainer, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	1,024.85 21.11	35.19
40 05 23 23-0202 EA 2" Strainer, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	1,477.67 28.93	48.21
40 05 23 23-0203 EA 2-1/2" Strainer, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	2,030.48 38.47	64.12
40 05 23 23-0204 EA 3" Strainer, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	2,957.30 57.85	96.41
40 05 23 23-0205 EA 4" Strainer, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	3,789.07 92.55	154.26
40 05 23 23-0206 Plug Valves (40 05 23 23-0153)		
40 05 23 23-0207 EA 1/2" Plug Valve, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	448.12 12.31	20.53
40 05 23 23-0208 EA 3/4" Plug Valve, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	490.31 14.11	23.52
40 05 23 23-0209 EA 1" Plug Valve, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	553.72 18.66	31.14
40 05 23 23-0210 EA 1-1/2" Plug Valve, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	771.63 21.11	35.19
40 05 23 23-0211 EA 2" Plug Valve, Stainless Steel Type 316 <i>For Work In Restricted Working Space, Add</i>	1,004.05 28.92	48.21
40 05 23 23-0212 Cut And Prepare Existing Pipe In-Place (40 05 23 23-0011)		
Note: For use when connecting pipe to an existing in-place system.		
40 05 23 23-0213 EA Cut And Prepare 1/2" Stainless Steel Pipe	19.28	
40 05 23 23-0214 EA Cut And Prepare 3/4" Stainless Steel Pipe	20.82	
40 05 23 23-0215 EA Cut And Prepare 1" Stainless Steel Pipe	23.42	
40 05 23 23-0216 EA Cut And Prepare 1-1/4" Stainless Steel Pipe	24.58	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR				TOTAL DIRECT	DEMOLITION
CSI	UOM	DESCRIPTION		UNIT COST	UNIT COST
40 05 23 23-0217	EA	Cut And Prepare 1-1/2" Stainless Steel Pipe		26.02	
40 05 23 23-0218	EA	Cut And Prepare 2" Stainless Steel Pipe		27.95	
40 05 23 23-0219	EA	Cut And Prepare 2-1/2" Stainless Steel Pipe		29.88	
40 05 23 23-0220	EA	Cut And Prepare 3" Stainless Steel Pipe		32.77	
40 05 23 23-0221	EA	Cut And Prepare 4" Stainless Steel Pipe		35.66	
40 05 23 23-0222	EA	Cut And Prepare 6" Stainless Steel Pipe		38.55	
40 05 23 23-0223	EA	Cut And Prepare 8" Stainless Steel Pipe		41.45	
40 05 23 23-0224	EA	Cut And Prepare 10" Stainless Steel Pipe		45.30	
40 05 23 23-0225	EA	Cut And Prepare 12" Stainless Steel Pipe		49.16	
40 05 23 23-0226	EA	Cut And Prepare 14" Stainless Steel Pipe		53.01	
40 05 23 23-0227	EA	Cut And Prepare 16" Stainless Steel Pipe		56.86	
40 05 23 23-0228	EA	Cut And Prepare 18" Stainless Steel Pipe		59.76	
40 05 23 23-0229	EA	Cut And Prepare 20" Stainless Steel Pipe		62.65	
40 05 23 23-0230	EA	Cut And Prepare 24" Stainless Steel Pipe		66.51	
40 05 23 23-0231		Stainless Steel Pipe And Fittings (40 05 23 23)			
40 05 23 23-0232		Type 304, Schedule 40 Stainless Steel Pipe And 150 LB Threaded Fittings			
40 05 23 23-0233		Type 304, Schedule 40 Stainless Steel Threaded Pipe (40 05 23 23-0232)			
40 05 23 23-0234	LF	1/2" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting.....	13.81		4.14
		<i>For Work In Restricted Working Space, Add</i>	2.48		
40 05 23 23-0235	LF	3/4" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting.....	17.01		5.21
		<i>For Work In Restricted Working Space, Add</i>	3.11		
40 05 23 23-0236	LF	1" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting.....	20.89		6.27
		<i>For Work In Restricted Working Space, Add</i>	3.73		
40 05 23 23-0237	LF	1-1/4" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting	25.05		7.23
		<i>For Work In Restricted Working Space, Add</i>	4.35		
40 05 23 23-0238	LF	1-1/2" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting	28.96		8.20
		<i>For Work In Restricted Working Space, Add</i>	4.94		
40 05 23 23-0239	LF	2" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting.....	36.97		10.41
		<i>For Work In Restricted Working Space, Add</i>	6.22		
40 05 23 23-0240	LF	2-1/2" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting	49.79		12.34
		<i>For Work In Restricted Working Space, Add</i>	7.42		
40 05 23 23-0241	LF	3" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting.....	62.58		15.52
		<i>For Work In Restricted Working Space, Add</i>	9.33		
40 05 23 23-0242	LF	4" Pipe, Stainless Steel, Schedule 40 Type 304 For 150 LB Threaded Fitting.....	84.62		20.53
		<i>For Work In Restricted Working Space, Add</i>	12.31		
40 05 23 23-0243		150#, Type 304 Stainless Steel Threaded 90 Degree Elbows (40 05 23 23-0232)			
40 05 23 23-0244	EA	1/2", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow.....	33.42		15.52
		<i>For Work In Restricted Working Space, Add</i>	9.33		
40 05 23 23-0245	EA	3/4", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow.....	44.35		20.53
		<i>For Work In Restricted Working Space, Add</i>	12.31		
40 05 23 23-0246	EA	1", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow.....	56.95		26.04
		<i>For Work In Restricted Working Space, Add</i>	15.63		
40 05 23 23-0247	EA	1-1/4", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow	79.69		35.67
		<i>For Work In Restricted Working Space, Add</i>	21.43		
40 05 23 23-0248	EA	1-1/2", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow	94.84		41.94
		<i>For Work In Restricted Working Space, Add</i>	25.15		
40 05 23 23-0249	EA	2", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow.....	115.46		50.72
		<i>For Work In Restricted Working Space, Add</i>	30.45		
40 05 23 23-0250	EA	2-1/2", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow	192.50		80.31
		<i>For Work In Restricted Working Space, Add</i>	48.21		
40 05 23 23-0251	EA	3", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow.....	247.87		103.64
		<i>For Work In Restricted Working Space, Add</i>	62.21		
40 05 23 23-0252	EA	4", 150#, Type 304 Stainless Steel Threaded 90 Degree Elbow.....	336.19		128.52
		<i>For Work In Restricted Working Space, Add</i>	77.13		
40 05 23 23-0253		150#, Type 304 Stainless Steel Threaded 45 Degree Elbows (40 05 23 23-0232)			
40 05 23 23-0254	EA	1/2", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow.....	33.96		15.52
		<i>For Work In Restricted Working Space, Add</i>	9.33		
40 05 23 23-0255	EA	3/4", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow.....	45.21		20.53
		<i>For Work In Restricted Working Space, Add</i>	12.31		
40 05 23 23-0256	EA	1", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow.....	57.22		26.04
		<i>For Work In Restricted Working Space, Add</i>	15.63		
40 05 23 23-0257	EA	1-1/4", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow	79.58		35.67
		<i>For Work In Restricted Working Space, Add</i>	21.43		
40 05 23 23-0258	EA	1-1/2", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow	93.56		41.94
		<i>For Work In Restricted Working Space, Add</i>	25.15		
40 05 23 23-0259	EA	2", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow.....	115.16		50.72
		<i>For Work In Restricted Working Space, Add</i>	30.45		
40 05 23 23-0260	EA	2-1/2", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow	198.29		80.31
		<i>For Work In Restricted Working Space, Add</i>	48.21		
40 05 23 23-0261	EA	3", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow.....	259.18		103.64
		<i>For Work In Restricted Working Space, Add</i>	62.21		
40 05 23 23-0262	EA	4", 150#, Type 304 Stainless Steel Threaded 45 Degree Elbow.....	349.36		128.52
		<i>For Work In Restricted Working Space, Add</i>	77.13		



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0263 150#, Type 304 Stainless Steel Threaded Tees (40 05 23 23-0232)		
40 05 23 23-0264 EA 1/2", 150#, Type 304 Stainless Steel Threaded Tee.....	50.19	23.52
For Work In Restricted Working Space, Add	14.11	
40 05 23 23-0265 EA 3/4", 150#, Type 304 Stainless Steel Threaded Tee.....	67.20	31.14
For Work In Restricted Working Space, Add	18.66	
40 05 23 23-0266 EA 1", 150#, Type 304 Stainless Steel Threaded Tee.....	83.50	38.56
For Work In Restricted Working Space, Add	23.14	
40 05 23 23-0267 EA 1-1/4", 150#, Type 304 Stainless Steel Threaded Tee.....	119.80	53.60
For Work In Restricted Working Space, Add	32.14	
40 05 23 23-0268 EA 1-1/2", 150#, Type 304 Stainless Steel Threaded Tee.....	136.28	60.26
For Work In Restricted Working Space, Add	36.16	
40 05 23 23-0269 EA 2", 150#, Type 304 Stainless Steel Threaded Tee.....	180.93	80.31
For Work In Restricted Working Space, Add	48.21	
40 05 23 23-0270 EA 2-1/2", 150#, Type 304 Stainless Steel Threaded Tee.....	275.73	116.18
For Work In Restricted Working Space, Add	69.70	
40 05 23 23-0271 EA 3", 150#, Type 304 Stainless Steel Threaded Tee.....	373.55	155.52
For Work In Restricted Working Space, Add	93.30	
40 05 23 23-0272 EA 4", 150#, Type 304 Stainless Steel Threaded Tee.....	498.61	192.83
For Work In Restricted Working Space, Add	115.70	
40 05 23 23-0273 150#, Type 304 Stainless Steel Threaded Reducers (40 05 23 23-0232)		
40 05 23 23-0274 EA 3/4", 150#, Type 304 Stainless Steel Threaded Reducer.....	43.95	20.53
For Work In Restricted Working Space, Add	12.31	
40 05 23 23-0275 EA 1", 150#, Type 304 Stainless Steel Threaded Reducer.....	56.10	26.04
For Work In Restricted Working Space, Add	15.63	
40 05 23 23-0276 EA 1-1/4", 150#, Type 304 Stainless Steel Threaded Reducer.....	77.26	35.67
For Work In Restricted Working Space, Add	21.43	
40 05 23 23-0277 EA 1-1/2", 150#, Type 304 Stainless Steel Threaded Reducer.....	92.23	41.94
For Work In Restricted Working Space, Add	25.15	
40 05 23 23-0278 EA 2", 150#, Type 304 Stainless Steel Threaded Reducer.....	115.52	50.72
For Work In Restricted Working Space, Add	30.45	
40 05 23 23-0279 EA 2-1/2", 150#, Type 304 Stainless Steel Threaded Reducer.....	190.79	80.31
For Work In Restricted Working Space, Add	48.21	
40 05 23 23-0280 EA 3", 150#, Type 304 Stainless Steel Threaded Reducer.....	250.21	103.64
For Work In Restricted Working Space, Add	62.21	
40 05 23 23-0281 EA 4", 150#, Type 304 Stainless Steel Threaded Reducer.....	328.10	128.52
For Work In Restricted Working Space, Add	77.13	
40 05 23 23-0282 150#, Type 304 Stainless Steel Threaded Caps (40 05 23 23-0232)		
40 05 23 23-0283 EA 1/2", 150#, Type 304 Stainless Steel Threaded Cap.....	17.10	7.81
For Work In Restricted Working Space, Add	4.67	
40 05 23 23-0284 EA 3/4", 150#, Type 304 Stainless Steel Threaded Cap.....	22.67	10.41
For Work In Restricted Working Space, Add	6.22	
40 05 23 23-0285 EA 1", 150#, Type 304 Stainless Steel Threaded Cap.....	28.61	12.83
For Work In Restricted Working Space, Add	7.71	
40 05 23 23-0286 EA 1-1/4", 150#, Type 304 Stainless Steel Threaded Cap.....	41.64	18.22
For Work In Restricted Working Space, Add	10.91	
40 05 23 23-0287 EA 1-1/2", 150#, Type 304 Stainless Steel Threaded Cap.....	47.93	20.53
For Work In Restricted Working Space, Add	12.31	
40 05 23 23-0288 EA 2", 150#, Type 304 Stainless Steel Threaded Cap.....	60.90	26.04
For Work In Restricted Working Space, Add	15.63	
40 05 23 23-0289 EA 2-1/2", 150#, Type 304 Stainless Steel Threaded Cap.....	92.99	38.56
For Work In Restricted Working Space, Add	23.14	
40 05 23 23-0290 EA 3", 150#, Type 304 Stainless Steel Threaded Cap.....	123.41	50.72
For Work In Restricted Working Space, Add	30.45	
40 05 23 23-0291 EA 4", 150#, Type 304 Stainless Steel Threaded Cap.....	165.65	64.31
For Work In Restricted Working Space, Add	38.57	
40 05 23 23-0292 150#, Type 304 Stainless Steel Threaded Unions (40 05 23 23-0232)		
40 05 23 23-0293 EA 1/2", 150#, Type 304 Stainless Steel Threaded Union.....	53.55	23.52
For Work In Restricted Working Space, Add	14.11	
40 05 23 23-0294 EA 3/4", 150#, Type 304 Stainless Steel Threaded Union.....	70.47	31.14
For Work In Restricted Working Space, Add	18.66	
40 05 23 23-0295 EA 1", 150#, Type 304 Stainless Steel Threaded Union.....	89.61	38.56
For Work In Restricted Working Space, Add	23.14	
40 05 23 23-0296 EA 1-1/4", 150#, Type 304 Stainless Steel Threaded Union.....	128.78	53.60
For Work In Restricted Working Space, Add	32.14	
40 05 23 23-0297 EA 1-1/2", 150#, Type 304 Stainless Steel Threaded Union.....	144.99	60.26
For Work In Restricted Working Space, Add	36.16	
40 05 23 23-0298 EA 2", 150#, Type 304 Stainless Steel Threaded Union.....	190.00	80.31
For Work In Restricted Working Space, Add	48.21	
40 05 23 23-0299 EA 2-1/2", 150#, Type 304 Stainless Steel Threaded Union.....	320.42	120.52
For Work In Restricted Working Space, Add	72.31	
40 05 23 23-0300 EA 3", 150#, Type 304 Stainless Steel Threaded Union.....	410.99	155.52
For Work In Restricted Working Space, Add	93.31	
40 05 23 23-0301 EA 4", 150#, Type 304 Stainless Steel Threaded Union.....	419.40	128.57
For Work In Restricted Working Space, Add	77.14	

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23	23-0302		150#, Type 304 Stainless Steel Threaded Couplings (40 05 23 23-0232)		
40 05 23	23-0303	EA	1/2", 150#, Type 304 Stainless Steel Threaded Coupling.....	33.20	15.52
			<i>For Work In Restricted Working Space, Add</i>	9.33	
40 05 23	23-0304	EA	3/4", 150#, Type 304 Stainless Steel Threaded Coupling.....	44.05	20.53
			<i>For Work In Restricted Working Space, Add</i>	12.31	
40 05 23	23-0305	EA	1", 150#, Type 304 Stainless Steel Threaded Coupling.....	56.71	26.04
			<i>For Work In Restricted Working Space, Add</i>	15.63	
40 05 23	23-0306	EA	1-1/4", 150#, Type 304 Stainless Steel Threaded Coupling.....	78.73	35.67
			<i>For Work In Restricted Working Space, Add</i>	21.43	
40 05 23	23-0307	EA	1-1/2", 150#, Type 304 Stainless Steel Threaded Coupling.....	92.51	41.94
			<i>For Work In Restricted Working Space, Add</i>	25.15	
40 05 23	23-0308	EA	2", 150#, Type 304 Stainless Steel Threaded Coupling.....	113.73	50.72
			<i>For Work In Restricted Working Space, Add</i>	30.45	
40 05 23	23-0309	EA	2-1/2", 150#, Type 304 Stainless Steel Threaded Coupling.....	187.56	80.31
			<i>For Work In Restricted Working Space, Add</i>	48.21	
40 05 23	23-0310	EA	3", 150#, Type 304 Stainless Steel Threaded Coupling.....	242.08	103.64
			<i>For Work In Restricted Working Space, Add</i>	62.21	
40 05 23	23-0311	EA	4", 150#, Type 304 Stainless Steel Threaded Coupling.....	311.08	128.52
			<i>For Work In Restricted Working Space, Add</i>	77.13	
40 05 23	23-0312		Type 316, Schedule 40 Stainless Steel Pipe And 150 LB Threaded Fittings (40 05 23 23-0231)		
40 05 23	23-0313		Type 316, Schedule 40 Stainless Steel Threaded Pipe (40 05 23 23-0312)		
40 05 23	23-0314	LF	1/2" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting.....	16.74	4.14
			<i>For Work In Restricted Working Space, Add</i>	2.48	
40 05 23	23-0315	LF	3/4" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting.....	19.89	5.21
			<i>For Work In Restricted Working Space, Add</i>	3.11	
40 05 23	23-0316	LF	1" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting.....	25.03	6.27
			<i>For Work In Restricted Working Space, Add</i>	3.73	
40 05 23	23-0317	LF	1-1/4" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting.....	30.47	7.23
			<i>For Work In Restricted Working Space, Add</i>	4.35	
40 05 23	23-0318	LF	1-1/2" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting.....	35.38	8.20
			<i>For Work In Restricted Working Space, Add</i>	4.94	
40 05 23	23-0319	LF	2" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting.....	45.56	10.41
			<i>For Work In Restricted Working Space, Add</i>	6.22	
40 05 23	23-0320	LF	2-1/2" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting.....	61.80	12.34
			<i>For Work In Restricted Working Space, Add</i>	7.42	
40 05 23	23-0321	LF	3" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting.....	80.50	15.52
			<i>For Work In Restricted Working Space, Add</i>	9.33	
40 05 23	23-0322	LF	4" Pipe, Stainless Steel Schedule 40 Type 316 For 150 LB Threaded Fitting.....	107.93	20.53
			<i>For Work In Restricted Working Space, Add</i>	12.31	
40 05 23	23-0323		150#, Type 316 Stainless Steel Threaded 90 Degree Elbows (40 05 23 23-0312)		
40 05 23	23-0324	EA	1/2", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow.....	34.12	15.52
			<i>For Work In Restricted Working Space, Add</i>	9.33	
40 05 23	23-0325	EA	3/4", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow.....	45.39	20.53
			<i>For Work In Restricted Working Space, Add</i>	12.31	
40 05 23	23-0326	EA	1", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow.....	57.59	26.04
			<i>For Work In Restricted Working Space, Add</i>	15.63	
40 05 23	23-0327	EA	1-1/4", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow.....	80.83	35.67
			<i>For Work In Restricted Working Space, Add</i>	21.43	
40 05 23	23-0328	EA	1-1/2", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow.....	96.37	41.94
			<i>For Work In Restricted Working Space, Add</i>	25.15	
40 05 23	23-0329	EA	2", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow.....	117.35	50.72
			<i>For Work In Restricted Working Space, Add</i>	30.45	
40 05 23	23-0330	EA	2-1/2", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow.....	195.52	80.31
			<i>For Work In Restricted Working Space, Add</i>	48.21	
40 05 23	23-0331	EA	3", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow.....	255.28	103.64
			<i>For Work In Restricted Working Space, Add</i>	62.21	
40 05 23	23-0332	EA	4", 150#, Type 316 Stainless Steel Threaded 90 Degree Elbow.....	345.19	128.52
			<i>For Work In Restricted Working Space, Add</i>	77.13	
40 05 23	23-0333		150#, Type 316 Stainless Steel Threaded 45 Degree Elbows (40 05 23 23-0312)		
40 05 23	23-0334	EA	1/2", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow.....	34.69	15.52
			<i>For Work In Restricted Working Space, Add</i>	9.33	
40 05 23	23-0335	EA	3/4", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow.....	45.75	20.53
			<i>For Work In Restricted Working Space, Add</i>	12.31	
40 05 23	23-0336	EA	1", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow.....	58.01	26.04
			<i>For Work In Restricted Working Space, Add</i>	15.63	
40 05 23	23-0337	EA	1-1/4", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow.....	80.71	35.67
			<i>For Work In Restricted Working Space, Add</i>	21.43	
40 05 23	23-0338	EA	1-1/2", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow.....	94.88	41.94
			<i>For Work In Restricted Working Space, Add</i>	25.15	
40 05 23	23-0339	EA	2", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow.....	116.93	50.72
			<i>For Work In Restricted Working Space, Add</i>	30.45	
40 05 23	23-0340	EA	2-1/2", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow.....	201.14	80.31
			<i>For Work In Restricted Working Space, Add</i>	48.21	
40 05 23	23-0341	EA	3", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow.....	265.73	103.64
			<i>For Work In Restricted Working Space, Add</i>	62.21	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0342 EA 4", 150#, Type 316 Stainless Steel Threaded 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	367.03 77.13	128.52
40 05 23 23-0343 150#, Type 316 Stainless Steel Threaded Tees (40 05 23 23-0312)		
40 05 23 23-0344 EA 1/2", 150#, Type 316 Stainless Steel Threaded Tee..... <i>For Work In Restricted Working Space, Add</i>	50.93 14.11	23.52
40 05 23 23-0345 EA 3/4", 150#, Type 316 Stainless Steel Threaded Tee..... <i>For Work In Restricted Working Space, Add</i>	67.96 18.66	31.14
40 05 23 23-0346 EA 1", 150#, Type 316 Stainless Steel Threaded Tee..... <i>For Work In Restricted Working Space, Add</i>	84.35 23.14	38.56
40 05 23 23-0347 EA 1-1/4", 150#, Type 316 Stainless Steel Threaded Tee..... <i>For Work In Restricted Working Space, Add</i>	121.53 32.14	53.60
40 05 23 23-0348 EA 1-1/2", 150#, Type 316 Stainless Steel Threaded Tee..... <i>For Work In Restricted Working Space, Add</i>	137.99 36.16	60.26
40 05 23 23-0349 EA 2", 150#, Type 316 Stainless Steel Threaded Tee..... <i>For Work In Restricted Working Space, Add</i>	183.18 48.21	80.31
40 05 23 23-0350 EA 2-1/2", 150#, Type 316 Stainless Steel Threaded Tee..... <i>For Work In Restricted Working Space, Add</i>	284.92 69.70	116.18
40 05 23 23-0351 EA 3", 150#, Type 316 Stainless Steel Threaded Tee..... <i>For Work In Restricted Working Space, Add</i>	386.07 93.30	155.52
40 05 23 23-0352 EA 4", 150#, Type 316 Stainless Steel Threaded Tee..... <i>For Work In Restricted Working Space, Add</i>	507.95 115.70	192.83
40 05 23 23-0353 150#, Type 316 Stainless Steel Threaded Reducers (40 05 23 23-0312)		
40 05 23 23-0354 EA 3/4", 150#, Type 316 Stainless Steel Threaded Reducer..... <i>For Work In Restricted Working Space, Add</i>	44.59 12.31	20.53
40 05 23 23-0355 EA 1", 150#, Type 316 Stainless Steel Threaded Reducer..... <i>For Work In Restricted Working Space, Add</i>	57.99 15.63	26.04
40 05 23 23-0356 EA 1-1/4", 150#, Type 316 Stainless Steel Threaded Reducer..... <i>For Work In Restricted Working Space, Add</i>	77.62 21.43	35.67
40 05 23 23-0357 EA 1-1/2", 150#, Type 316 Stainless Steel Threaded Reducer..... <i>For Work In Restricted Working Space, Add</i>	94.09 25.15	41.94
40 05 23 23-0358 EA 2", 150#, Type 316 Stainless Steel Threaded Reducer..... <i>For Work In Restricted Working Space, Add</i>	118.78 30.45	50.72
40 05 23 23-0359 EA 2-1/2", 150#, Type 316 Stainless Steel Threaded Reducer..... <i>For Work In Restricted Working Space, Add</i>	198.21 48.21	80.31
40 05 23 23-0360 EA 3", 150#, Type 316 Stainless Steel Threaded Reducer..... <i>For Work In Restricted Working Space, Add</i>	258.40 62.21	103.64
40 05 23 23-0361 EA 4", 150#, Type 316 Stainless Steel Threaded Reducer..... <i>For Work In Restricted Working Space, Add</i>	341.76 77.13	128.52
40 05 23 23-0362 150#, Type 316 Stainless Steel Threaded Caps (40 05 23 23-0312)		
40 05 23 23-0363 EA 1/2", 150#, Type 316 Stainless Steel Threaded Cap..... <i>For Work In Restricted Working Space, Add</i>	17.52 4.67	7.81
40 05 23 23-0364 EA 3/4", 150#, Type 316 Stainless Steel Threaded Cap..... <i>For Work In Restricted Working Space, Add</i>	22.98 6.22	10.41
40 05 23 23-0365 EA 1", 150#, Type 316 Stainless Steel Threaded Cap..... <i>For Work In Restricted Working Space, Add</i>	29.17 7.71	12.83
40 05 23 23-0366 EA 1-1/4", 150#, Type 316 Stainless Steel Threaded Cap..... <i>For Work In Restricted Working Space, Add</i>	43.17 10.91	18.22
40 05 23 23-0367 EA 1-1/2", 150#, Type 316 Stainless Steel Threaded Cap..... <i>For Work In Restricted Working Space, Add</i>	49.74 12.31	20.53
40 05 23 23-0368 EA 2", 150#, Type 316 Stainless Steel Threaded Cap..... <i>For Work In Restricted Working Space, Add</i>	63.26 15.63	26.04
40 05 23 23-0369 EA 2-1/2", 150#, Type 316 Stainless Steel Threaded Cap..... <i>For Work In Restricted Working Space, Add</i>	96.91 23.14	38.56
40 05 23 23-0370 EA 3", 150#, Type 316 Stainless Steel Threaded Cap..... <i>For Work In Restricted Working Space, Add</i>	127.39 30.45	50.72
40 05 23 23-0371 EA 4", 150#, Type 316 Stainless Steel Threaded Cap..... <i>For Work In Restricted Working Space, Add</i>	173.54 38.57	64.31
40 05 23 23-0372 150#, Type 316 Stainless Steel Threaded Unions (40 05 23 23-0312)		
40 05 23 23-0373 EA 1/2", 150#, Type 316 Stainless Steel Threaded Union..... <i>For Work In Restricted Working Space, Add</i>	54.45 14.11	23.52
40 05 23 23-0374 EA 3/4", 150#, Type 316 Stainless Steel Threaded Union..... <i>For Work In Restricted Working Space, Add</i>	73.85 18.66	31.14
40 05 23 23-0375 EA 1", 150#, Type 316 Stainless Steel Threaded Union..... <i>For Work In Restricted Working Space, Add</i>	91.32 23.14	38.56
40 05 23 23-0376 EA 1-1/4", 150#, Type 316 Stainless Steel Threaded Union..... <i>For Work In Restricted Working Space, Add</i>	131.69 32.14	53.60
40 05 23 23-0377 EA 1-1/2", 150#, Type 316 Stainless Steel Threaded Union..... <i>For Work In Restricted Working Space, Add</i>	148.38 36.16	60.26
40 05 23 23-0378 EA 2", 150#, Type 316 Stainless Steel Threaded Union..... <i>For Work In Restricted Working Space, Add</i>	193.93 48.21	80.31
40 05 23 23-0379 EA 2-1/2", 150#, Type 316 Stainless Steel Threaded Union..... <i>For Work In Restricted Working Space, Add</i>	326.45 72.31	120.52
40 05 23 23-0380 EA 3", 150#, Type 316 Stainless Steel Threaded Union..... <i>For Work In Restricted Working Space, Add</i>	429.79 93.31	155.52

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23	23-0381	EA	4", 150#, Type 316 Stainless Steel Threaded Union..... <i>For Work In Restricted Working Space, Add</i>	459.46 77.14	128.57
40 05 23	23-0382		150#, Type 316 Stainless Steel Threaded Couplings (40 05 23 23-0312)		
40 05 23	23-0383	EA	1/2", 150#, Type 316 Stainless Steel Threaded Coupling..... <i>For Work In Restricted Working Space, Add</i>	34.61 9.33	15.52
40 05 23	23-0384	EA	3/4", 150#, Type 316 Stainless Steel Threaded Coupling..... <i>For Work In Restricted Working Space, Add</i>	44.71 12.31	20.53
40 05 23	23-0385	EA	1", 150#, Type 316 Stainless Steel Threaded Coupling..... <i>For Work In Restricted Working Space, Add</i>	57.34 15.63	26.04
40 05 23	23-0386	EA	1-1/4", 150#, Type 316 Stainless Steel Threaded Coupling..... <i>For Work In Restricted Working Space, Add</i>	79.73 21.43	35.67
40 05 23	23-0387	EA	1-1/2", 150#, Type 316 Stainless Steel Threaded Coupling..... <i>For Work In Restricted Working Space, Add</i>	93.70 25.15	41.94
40 05 23	23-0388	EA	2", 150#, Type 316 Stainless Steel Threaded Coupling..... <i>For Work In Restricted Working Space, Add</i>	115.39 30.45	50.72
40 05 23	23-0389	EA	2-1/2", 150#, Type 316 Stainless Steel Threaded Coupling..... <i>For Work In Restricted Working Space, Add</i>	193.34 48.21	80.31
40 05 23	23-0390	EA	3", 150#, Type 316 Stainless Steel Threaded Coupling..... <i>For Work In Restricted Working Space, Add</i>	249.53 62.21	103.64
40 05 23	23-0391	EA	4", 150#, Type 316 Stainless Steel Threaded Coupling..... <i>For Work In Restricted Working Space, Add</i>	322.25 77.13	128.52
40 05 23	23-0392		Type 304, Schedule 10 Stainless Steel Pipe And Butt Weld Fittings (40 05 23 23-0231)		
40 05 23	23-0393		Type 304, Schedule 10 Stainless Steel Pipe (40 05 23 23-0392)		
40 05 23	23-0394	LF	1/2" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	15.24 2.42	4.04
40 05 23	23-0395	LF	3/4" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	18.18 2.97	4.94
40 05 23	23-0396	LF	1" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	23.93 3.48	5.83
40 05 23	23-0397	LF	1-1/4" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	29.25 4.35	7.28
40 05 23	23-0398	LF	1-1/2" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	32.56 4.90	8.18
40 05 23	23-0399	LF	2" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	40.27 6.07	10.15
40 05 23	23-0400	LF	2-1/2" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	48.05 6.94	11.59
40 05 23	23-0401	LF	3" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	56.59 7.81	13.02
40 05 23	23-0402	LF	4" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	70.89 9.24	15.45
40 05 23	23-0403	LF	6" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	103.04 12.14	20.30
40 05 23	23-0404	LF	8" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	172.48 23.00	35.80
40 05 23	23-0405	LF	10" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	219.27 25.31	39.36
40 05 23	23-0406	LF	12" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	261.88 28.12	43.77
40 05 23	23-0407	LF	14" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	321.42 31.63	49.21
40 05 23	23-0408	LF	16" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	354.25 36.15	56.23
40 05 23	23-0409	LF	18" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	397.33 42.18	65.61
40 05 23	23-0410	LF	20" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	549.60 50.61	78.73
40 05 23	23-0411	LF	24" Pipe, Stainless Steel Schedule 10 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	716.05 63.26	98.41
40 05 23	23-0412		Type 304, Schedule 10 Stainless Steel Butt Weld 90 Degree Elbow (40 05 23 23-0392)		
40 05 23	23-0413	EA	1/2", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	105.39 30.72	46.08
40 05 23	23-0414	EA	3/4", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	111.68 32.61	48.91
40 05 23	23-0415	EA	1", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	122.97 35.84	53.75
40 05 23	23-0416	EA	1-1/4", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	134.16 39.06	58.58
40 05 23	23-0417	EA	1-1/2", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	148.17 43.13	64.69
40 05 23	23-0418	EA	2", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	165.41 47.99	71.98
40 05 23	23-0419	EA	2-1/2", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	214.03 61.41	92.12
40 05 23	23-0420	EA	3", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	251.00 71.97	107.97



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0421 EA 4", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	305.30 86.15	129.23
40 05 23 23-0422 EA 6", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	407.31 107.62	161.43
40 05 23 23-0423 EA 8", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	691.66 180.76	271.13
40 05 23 23-0424 EA 10", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	994.57 241.01	361.51
40 05 23 23-0425 EA 12", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	1,499.64 361.51	542.26
40 05 23 23-0426 EA 14", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	1,767.48 421.76	632.64
40 05 23 23-0427 EA 16", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	2,061.58 481.10	721.64
40 05 23 23-0428 EA 18", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	2,599.95 602.51	903.77
40 05 23 23-0429 EA 20", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	3,628.35 843.52	1,265.28
40 05 23 23-0430 EA 24", Type 304, Schedule 10 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	5,202.71 1,205.03	1,807.54
40 05 23 23-0431 Type 304, Schedule 10 Stainless Steel Butt Weld 45 Degree Elbow (40 05 23 23-0392)		
40 05 23 23-0432 EA 1/2", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	106.27 30.72	46.08
40 05 23 23-0433 EA 3/4", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	112.56 32.61	48.91
40 05 23 23-0434 EA 1", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	124.03 35.84	53.75
40 05 23 23-0435 EA 1-1/4", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	135.57 39.06	58.58
40 05 23 23-0436 EA 1-1/2", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	148.35 43.13	64.69
40 05 23 23-0437 EA 2", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	165.41 47.99	71.98
40 05 23 23-0438 EA 2-1/2", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	213.15 61.41	92.12
40 05 23 23-0439 EA 3", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	249.41 71.97	107.97
40 05 23 23-0440 EA 4", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	302.31 86.15	129.23
40 05 23 23-0441 EA 6", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	391.64 107.62	161.43
40 05 23 23-0442 EA 8", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	661.45 180.76	271.13
40 05 23 23-0443 EA 10", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	940.78 241.01	361.51
40 05 23 23-0444 EA 12", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	1,414.48 361.51	542.26
40 05 23 23-0445 EA 14", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	1,662.95 421.76	632.64
40 05 23 23-0446 EA 16", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	1,932.58 481.10	721.64
40 05 23 23-0447 EA 18", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	2,430.54 602.51	903.77
40 05 23 23-0448 EA 20", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	3,399.75 843.52	1,265.28
40 05 23 23-0449 EA 24", Type 304, Schedule 10 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	4,878.43 1,205.03	1,807.54
40 05 23 23-0450 Type 304, Schedule 10 Stainless Steel Butt Weld Tee (40 05 23 23-0392)		
40 05 23 23-0451 EA 1/2", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	139.83 39.05	58.57
40 05 23 23-0452 EA 3/4", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	169.45 47.93	71.90
40 05 23 23-0453 EA 1", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	189.19 53.85	80.78
40 05 23 23-0454 EA 1-1/4", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	215.45 61.41	92.12
40 05 23 23-0455 EA 1-1/2", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	229.41 65.92	98.88
40 05 23 23-0456 EA 2", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	250.05 71.90	107.84
40 05 23 23-0457 EA 2-1/2", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	316.47 86.15	129.23
40 05 23 23-0458 EA 3", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	378.89 107.96	161.94
40 05 23 23-0459 EA 4", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	432.40 121.17	181.76
40 05 23 23-0460 EA 6", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	614.39 161.56	242.34

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0461 EA 8", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	982.22 241.01	361.51
40 05 23 23-0462 EA 10", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	1,499.64 361.51	542.26
40 05 23 23-0463 EA 12", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	1,915.52 451.88	677.82
40 05 23 23-0464 EA 14", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	2,343.73 543.04	814.56
40 05 23 23-0465 EA 16", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	2,843.62 662.45	993.68
40 05 23 23-0466 EA 18", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	3,618.96 843.52	1,265.28
40 05 23 23-0467 EA 20", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	4,821.72 1,109.89	1,664.85
40 05 23 23-0468 EA 24", Type 304, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	7,251.25 1,687.04	2,530.56
40 05 23 23-0469 Type 304, Schedule 10 Stainless Steel Butt Weld Reducing Tees (40 05 23 23-0392)		
40 05 23 23-0470 EA 3/4", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	125.98 32.62	48.93
40 05 23 23-0471 EA 1", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	150.49 39.97	59.96
40 05 23 23-0472 EA 1-1/4", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	181.21 44.92	67.37
40 05 23 23-0473 EA 1-1/2", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	192.32 51.20	76.80
40 05 23 23-0474 EA 2", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	202.94 55.02	82.52
40 05 23 23-0475 EA 2-1/2", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	252.84 59.96	89.93
40 05 23 23-0476 EA 3", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	299.06 71.87	107.80
40 05 23 23-0477 EA 4", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	369.82 89.83	134.74
40 05 23 23-0478 EA 6", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	472.02 102.64	153.95
40 05 23 23-0479 EA 8", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	845.75 150.63	225.94
40 05 23 23-0480 EA 10", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	1,347.48 200.84	301.26
40 05 23 23-0481 EA 12", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	1,939.39 301.26	451.89
40 05 23 23-0482 EA 14", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	2,349.46 361.92	542.89
40 05 23 23-0483 EA 16", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	2,903.13 441.48	662.21
40 05 23 23-0484 EA 18", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	3,741.28 562.34	843.52
40 05 23 23-0485 EA 20", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	5,262.01 739.93	1,109.89
40 05 23 23-0486 EA 24", Type 304, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	8,198.12 1,123.70	1,685.54
40 05 23 23-0487 Type 304, Schedule 10 Stainless Steel Butt Weld Reducers (40 05 23 23-0392)		
40 05 23 23-0488 EA 3/4", Type 304, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	104.86 29.66	44.50
40 05 23 23-0489 EA 1", Type 304, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	115.14 32.33	48.49
40 05 23 23-0490 EA 1-1/4", Type 304, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	127.64 35.84	53.75
40 05 23 23-0491 EA 1-1/2", Type 304, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	136.70 39.06	58.58
40 05 23 23-0492 EA 2", Type 304, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	149.58 43.13	64.69
40 05 23 23-0493 EA 2-1/2", Type 304, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	196.90 53.90	80.84
40 05 23 23-0494 EA 3", Type 304, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	223.01 61.36	92.04
40 05 23 23-0495 EA 4", Type 304, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	260.82 71.90	107.84
40 05 23 23-0496 EA 6", Type 304, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	335.38 91.53	137.30
40 05 23 23-0497 EA 8", Type 304, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	530.63 144.60	216.91
40 05 23 23-0498 EA 10", Type 304, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	671.90 180.76	271.13
40 05 23 23-0499 EA 12", Type 304, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	901.62 241.01	361.51
40 05 23 23-0500 EA 14", Type 304, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	1,258.79 316.32	474.48
40 05 23 23-0501 EA 16", Type 304, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	1,462.78 360.48	540.71



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0502 EA 18", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,808.70 451.88	677.82
40 05 23 23-0503 EA 20", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	2,507.98 602.51	903.77
40 05 23 23-0504 EA 24", Type 304, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	3,650.57 903.77	1,355.66
40 05 23 23-0505 EA 3/4", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	121.41 29.66	44.50
40 05 23 23-0506 EA 1", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	127.29 32.33	48.49
40 05 23 23-0507 EA 1-1/4", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	135.96 35.84	53.75
40 05 23 23-0508 EA 1-1/2", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	151.84 39.06	58.58
40 05 23 23-0509 EA 2", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	160.49 43.13	64.69
40 05 23 23-0510 EA 2-1/2", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	208.87 53.90	80.84
40 05 23 23-0511 EA 3", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	234.80 61.36	92.04
40 05 23 23-0512 EA 4", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	269.94 71.90	107.84
40 05 23 23-0513 EA 6", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	368.29 91.53	137.30
40 05 23 23-0514 EA 8", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	601.18 144.60	216.91
40 05 23 23-0515 EA 10", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	809.52 180.76	271.13
40 05 23 23-0516 EA 12", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,028.78 241.01	361.51
40 05 23 23-0517 EA 14", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,552.14 316.32	474.48
40 05 23 23-0518 EA 16", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,798.91 360.48	540.71
40 05 23 23-0519 EA 18", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	2,218.93 451.88	677.82
40 05 23 23-0520 EA 20", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	3,165.36 602.51	903.77
40 05 23 23-0521 EA 24", Type 304, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	4,521.80 903.77	1,355.66
40 05 23 23-0522 Type 304, Schedule 10 Stainless Steel Butt Weld Caps (40 05 23 23-0392)		
40 05 23 23-0523 EA 1/2", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	56.66 15.36	23.04
40 05 23 23-0524 EA 3/4", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	61.73 16.30	24.45
40 05 23 23-0525 EA 1", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	67.82 17.92	26.87
40 05 23 23-0526 EA 1-1/4", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	74.51 19.53	29.30
40 05 23 23-0527 EA 1-1/2", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	80.51 21.57	32.35
40 05 23 23-0528 EA 2", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	87.54 23.99	35.99
40 05 23 23-0529 EA 2-1/2", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	113.27 30.71	46.07
40 05 23 23-0530 EA 3", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	129.29 35.99	53.99
40 05 23 23-0531 EA 4", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	155.56 43.08	64.61
40 05 23 23-0532 EA 6", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	199.19 53.90	80.84
40 05 23 23-0533 EA 8", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	336.43 90.38	135.56
40 05 23 23-0534 EA 10", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	448.13 120.50	180.75
40 05 23 23-0535 EA 12", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	663.06 180.76	271.12
40 05 23 23-0536 EA 14", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	777.13 210.88	316.31
40 05 23 23-0537 EA 16", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	897.53 240.55	360.82
40 05 23 23-0538 EA 18", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	1,131.31 301.26	451.89
40 05 23 23-0539 EA 20", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	1,567.50 421.76	632.64
40 05 23 23-0540 EA 24", Type 304, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	2,293.18 602.51	903.76
40 05 23 23-0541 Type 304, Schedule 40 Stainless Steel Pipe And Butt Weld Fittings (40 05 23 23-0231)		
40 05 23 23-0542 Type 304, Schedule 40 Stainless Steel Pipe (40 05 23 23-0541)		

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23	23-0543	LF	1/2" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	17.00 2.42	4.04
40 05 23	23-0544	LF	3/4" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	20.67 2.97	4.94
40 05 23	23-0545	LF	1" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	25.28 3.48	5.83
40 05 23	23-0546	LF	1-1/4" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	31.60 4.35	7.19
40 05 23	23-0547	LF	1-1/2" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	36.37 4.90	8.08
40 05 23	23-0548	LF	2" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	46.55 6.07	10.33
40 05 23	23-0549	LF	2-1/2" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	57.63 6.94	11.68
40 05 23	23-0550	LF	3" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	56.42 7.81	13.02
40 05 23	23-0551	LF	4" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	92.25 9.24	15.27
40 05 23	23-0552	LF	6" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	143.12 12.14	20.21
40 05 23	23-0553	LF	8" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	252.65 23.00	35.62
40 05 23	23-0554	LF	10" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	318.98 25.31	39.36
40 05 23	23-0555	LF	12" Pipe, Stainless Steel Schedule 40 Type 304 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	396.79 28.12	43.58
40 05 23	23-0556		Type 304, Schedule 40 Stainless Steel Butt Weld 90 Degree Elbows (40 05 23 23-0541)		
40 05 23	23-0557	EA	1/2", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	106.10 30.72	46.08
40 05 23	23-0558	EA	3/4", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	112.39 32.61	48.91
40 05 23	23-0559	EA	1", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	123.50 35.84	53.75
40 05 23	23-0560	EA	1-1/4", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	134.54 39.06	58.58
40 05 23	23-0561	EA	1-1/2", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	148.52 43.13	64.69
40 05 23	23-0562	EA	2", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	166.64 47.99	71.98
40 05 23	23-0563	EA	2-1/2", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	218.60 61.41	92.12
40 05 23	23-0564	EA	3", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	257.69 71.97	107.97
40 05 23	23-0565	EA	4", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	316.56 86.15	129.23
40 05 23	23-0566	EA	6", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	479.29 107.62	161.43
40 05 23	23-0567	EA	8", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	789.75 180.76	271.13
40 05 23	23-0568	EA	10", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	1,193.59 241.01	361.51
40 05 23	23-0569	EA	12", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	1,757.77 361.51	542.26
40 05 23	23-0570	EA	14", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	2,080.62 421.76	632.64
40 05 23	23-0571	EA	16", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	2,463.86 481.10	721.64
40 05 23	23-0572	EA	18", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	3,158.90 602.51	903.77
40 05 23	23-0573	EA	20", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	4,318.25 843.52	1,265.28
40 05 23	23-0574	EA	24", Type 304, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	6,186.97 1,205.03	1,807.54
40 05 23	23-0575		Type 304, Schedule 40 Stainless Steel Butt Weld 45 Degree Elbows (40 05 23 23-0541)		
40 05 23	23-0576	EA	1/2", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	107.33 30.72	46.08
40 05 23	23-0577	EA	3/4", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	113.62 32.61	48.91
40 05 23	23-0578	EA	1", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	124.38 35.84	53.75
40 05 23	23-0579	EA	1-1/4", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	135.44 39.06	58.58
40 05 23	23-0580	EA	1-1/2", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	149.40 43.13	64.69
40 05 23	23-0581	EA	2", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	166.83 47.99	71.98
40 05 23	23-0582	EA	2-1/2", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	218.60 61.41	92.12



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0583 EA 3", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	252.76 71.97	107.97
40 05 23 23-0584 EA 4", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	319.20 86.15	129.23
40 05 23 23-0585 EA 6", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	419.27 107.62	161.43
40 05 23 23-0586 EA 8", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	726.83 180.76	271.13
40 05 23 23-0587 EA 10", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	1,036.40 241.01	361.51
40 05 23 23-0588 EA 12", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	1,525.88 361.51	542.26
40 05 23 23-0589 EA 14", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	1,741.51 421.76	632.64
40 05 23 23-0590 EA 16", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	2,060.11 481.10	721.64
40 05 23 23-0591 EA 18", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	2,595.62 602.51	903.77
40 05 23 23-0592 EA 20", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	3,558.19 843.52	1,265.28
40 05 23 23-0593 EA 24", Type 304, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	5,147.44 1,205.03	1,807.54
40 05 23 23-0594 Type 304, Schedule 40 Stainless Steel Butt Weld Tees (40 05 23 23-0541)		
40 05 23 23-0595 EA 1/2", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	140.53 39.05	58.57
40 05 23 23-0596 EA 3/4", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	170.15 47.93	71.90
40 05 23 23-0597 EA 1", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	189.89 53.85	80.78
40 05 23 23-0598 EA 1-1/4", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	217.24 61.41	92.12
40 05 23 23-0599 EA 1-1/2", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	230.11 65.92	98.88
40 05 23 23-0600 EA 2", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	250.93 71.90	107.84
40 05 23 23-0601 EA 2-1/2", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	318.85 86.15	129.23
40 05 23 23-0602 EA 3", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	382.58 107.96	161.94
40 05 23 23-0603 EA 4", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	436.45 121.17	181.76
40 05 23 23-0604 EA 6", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	642.37 161.56	242.34
40 05 23 23-0605 EA 8", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	1,065.28 241.01	361.51
40 05 23 23-0606 EA 10", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	1,754.55 361.51	542.26
40 05 23 23-0607 EA 12", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	2,184.30 451.88	677.82
40 05 23 23-0608 EA 14", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	2,885.32 543.04	814.56
40 05 23 23-0609 EA 16", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	3,634.31 662.45	993.68
40 05 23 23-0610 EA 18", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	4,692.51 843.52	1,265.28
40 05 23 23-0611 EA 20", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	6,080.98 1,109.89	1,664.85
40 05 23 23-0612 EA 24", Type 304, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	9,296.44 1,687.04	2,530.56
40 05 23 23-0613 Type 304, Schedule 40 Stainless Steel Butt Weld Reducing Tees (40 05 23 23-0541)		
40 05 23 23-0614 EA 3/4", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	128.27 32.62	48.93
40 05 23 23-0615 EA 1", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	152.78 39.97	59.96
40 05 23 23-0616 EA 1-1/4", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	192.22 44.92	67.37
40 05 23 23-0617 EA 1-1/2", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	195.66 51.20	76.80
40 05 23 23-0618 EA 2", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	202.94 55.02	82.52
40 05 23 23-0619 EA 2-1/2", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	241.59 59.96	89.93
40 05 23 23-0620 EA 3", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	274.24 71.87	107.80
40 05 23 23-0621 EA 4", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	356.80 89.83	134.74
40 05 23 23-0622 EA 6", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	474.13 102.64	153.95
40 05 23 23-0623 EA 8", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	771.05 150.63	225.94

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0624 EA 10", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	1,370.85 200.84	301.26
40 05 23 23-0625 EA 12", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	1,986.15 301.26	451.89
40 05 23 23-0626 EA 14", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	2,283.85 361.92	542.89
40 05 23 23-0627 EA 16", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	2,820.96 441.48	662.21
40 05 23 23-0628 EA 18", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	3,634.13 562.34	843.52
40 05 23 23-0629 EA 20", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	5,101.54 739.93	1,109.89
40 05 23 23-0630 EA 24", Type 304, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	7,942.56 1,123.70	1,685.54
40 05 23 23-0631 Type 304, Schedule 40 Stainless Steel Butt Weld Reducers (40 05 23 23-0641)		
40 05 23 23-0632 EA 3/4", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	106.62 29.66	44.50
40 05 23 23-0633 EA 1", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	116.90 32.33	48.49
40 05 23 23-0634 EA 1-1/4", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	127.77 35.84	53.75
40 05 23 23-0635 EA 1-1/2", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	138.46 39.06	58.58
40 05 23 23-0636 EA 2", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	150.63 43.13	64.69
40 05 23 23-0637 EA 2-1/2", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	196.90 53.90	80.84
40 05 23 23-0638 EA 3", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	216.67 61.36	92.04
40 05 23 23-0639 EA 4", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	251.81 71.90	107.84
40 05 23 23-0640 EA 6", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	336.79 91.53	137.30
40 05 23 23-0641 EA 8", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	560.52 144.60	216.91
40 05 23 23-0642 EA 10", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	723.22 180.76	271.13
40 05 23 23-0643 EA 12", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	947.43 241.01	361.51
40 05 23 23-0644 EA 14", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	1,361.59 316.32	474.48
40 05 23 23-0645 EA 16", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	1,592.01 360.48	540.71
40 05 23 23-0646 EA 18", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	2,070.39 451.88	677.82
40 05 23 23-0647 EA 20", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	2,816.66 602.51	903.77
40 05 23 23-0648 EA 24", Type 304, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	3,970.24 903.77	1,355.66
40 05 23 23-0649 EA 3/4", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	122.12 29.66	44.50
40 05 23 23-0650 EA 1", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	130.98 32.33	48.49
40 05 23 23-0651 EA 1-1/4", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	148.63 35.84	53.75
40 05 23 23-0652 EA 1-1/2", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	158.35 39.06	58.58
40 05 23 23-0653 EA 2", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	170.52 43.13	64.69
40 05 23 23-0654 EA 2-1/2", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	208.87 53.90	80.84
40 05 23 23-0655 EA 3", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	256.63 61.36	92.04
40 05 23 23-0656 EA 4", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	284.73 71.90	107.84
40 05 23 23-0657 EA 6", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	382.90 91.53	137.30
40 05 23 23-0658 EA 8", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	602.71 144.60	216.91
40 05 23 23-0659 EA 10", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	808.19 180.76	271.13
40 05 23 23-0660 EA 12", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	1,097.97 241.01	361.51
40 05 23 23-0661 EA 14", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	1,730.59 316.32	474.48
40 05 23 23-0662 EA 16", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	1,964.43 360.48	540.71
40 05 23 23-0663 EA 18", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	2,552.19 451.88	677.82
40 05 23 23-0664 EA 20", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	3,329.83 602.51	903.77



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0665 EA 24", Type 304, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	5,250.79 903.77	1,355.66
40 05 23 23-0666 Type 304, Schedule 40 Stainless Steel Butt Weld Caps (40 05 23 23-0541)		
40 05 23 23-0667 EA 1/2", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	57.18 15.36	23.04
40 05 23 23-0668 EA 3/4", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	61.20 16.30	24.45
40 05 23 23-0669 EA 1", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	68.34 17.92	26.87
40 05 23 23-0670 EA 1-1/4", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	76.87 19.53	29.30
40 05 23 23-0671 EA 1-1/2", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	82.80 21.57	32.35
40 05 23 23-0672 EA 2", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	87.36 23.99	35.99
40 05 23 23-0673 EA 2-1/2", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	112.09 30.71	46.07
40 05 23 23-0674 EA 3", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	129.99 35.99	53.99
40 05 23 23-0675 EA 4", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	157.67 43.08	64.61
40 05 23 23-0676 EA 6", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	212.21 53.90	80.84
40 05 23 23-0677 EA 8", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	357.34 90.38	135.56
40 05 23 23-0678 EA 10", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	477.70 120.50	180.75
40 05 23 23-0679 EA 12", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	719.42 180.76	271.12
40 05 23 23-0680 EA 14", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	828.75 210.88	316.31
40 05 23 23-0681 EA 16", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	968.54 240.55	360.82
40 05 23 23-0682 EA 18", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	1,215.47 301.26	451.89
40 05 23 23-0683 EA 20", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	1,679.73 421.76	632.64
40 05 23 23-0684 EA 24", Type 304, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	2,480.83 602.51	903.76
40 05 23 23-0685 Type 316, Schedule 10 Stainless Steel Pipe And Butt Weld Fittings (40 05 23 23-0231)		
40 05 23 23-0686 Type 316, Schedule 10 Stainless Steel Pipe (40 05 23 23-0685)		
40 05 23 23-0687 LF 1/2" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	17.48 2.42	4.04
40 05 23 23-0688 LF 3/4" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	20.76 2.97	4.94
40 05 23 23-0689 LF 1" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	27.79 3.48	5.83
40 05 23 23-0690 LF 1-1/4" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	33.86 4.35	7.28
40 05 23 23-0691 LF 1-1/2" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	37.63 4.90	8.18
40 05 23 23-0692 LF 2" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	46.53 6.07	10.15
40 05 23 23-0693 LF 2-1/2" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	55.83 6.94	11.59
40 05 23 23-0694 LF 3" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	66.13 7.81	13.02
40 05 23 23-0695 LF 4" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	83.41 9.24	15.45
40 05 23 23-0696 LF 6" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	122.58 12.14	20.30
40 05 23 23-0697 LF 8" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	202.40 23.00	35.80
40 05 23 23-0698 LF 10" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	261.40 25.31	39.36
40 05 23 23-0699 LF 12" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	314.39 28.12	43.77
40 05 23 23-0700 LF 14" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	388.86 31.63	49.21
40 05 23 23-0701 LF 16" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	427.25 36.15	56.23
40 05 23 23-0702 LF 18" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	477.51 42.18	65.61
40 05 23 23-0703 LF 20" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	668.55 50.61	78.73
40 05 23 23-0704 LF 24" Pipe, Stainless Steel Schedule 10 Type 316 For Welded Butt Fitting <i>For Work In Restricted Working Space, Add</i>	873.82 63.26	98.41

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**MINOR
CSI UOM DESCRIPTIONTOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23	23-0705		Type 316, Schedule 10 Stainless Steel Butt Weld 90 Degree Elbows (40 05 23 23- 0685)		
40 05 23	23-0706	EA	1/2", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....106.27	106.27	46.08
			<i>For Work In Restricted Working Space, Add</i> .....30.72	30.72	
40 05 23	23-0707	EA	3/4", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....112.56	112.56	48.91
			<i>For Work In Restricted Working Space, Add</i> .....32.61	32.61	
40 05 23	23-0708	EA	1", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....124.03	124.03	53.75
			<i>For Work In Restricted Working Space, Add</i> .....35.84	35.84	
40 05 23	23-0709	EA	1-1/4", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....135.69	135.69	58.58
			<i>For Work In Restricted Working Space, Add</i> .....39.06	39.06	
40 05 23	23-0710	EA	1-1/2", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....149.23	149.23	64.69
			<i>For Work In Restricted Working Space, Add</i> .....43.13	43.13	
40 05 23	23-0711	EA	2", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....166.64	166.64	71.98
			<i>For Work In Restricted Working Space, Add</i> .....47.99	47.99	
40 05 23	23-0712	EA	2-1/2", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....216.32	216.32	92.12
			<i>For Work In Restricted Working Space, Add</i> .....61.41	61.41	
40 05 23	23-0713	EA	3", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....254.34	254.34	107.97
			<i>For Work In Restricted Working Space, Add</i> .....71.97	71.97	
40 05 23	23-0714	EA	4", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....310.40	310.40	129.23
			<i>For Work In Restricted Working Space, Add</i> .....86.15	86.15	
40 05 23	23-0715	EA	6", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....420.68	420.68	161.43
			<i>For Work In Restricted Working Space, Add</i> .....107.62	107.62	
40 05 23	23-0716	EA	8", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....716.57	716.57	271.13
			<i>For Work In Restricted Working Space, Add</i> .....180.76	180.76	
40 05 23	23-0717	EA	10", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....1,052.16	1,052.16	361.51
			<i>For Work In Restricted Working Space, Add</i> .....241.01	241.01	
40 05 23	23-0718	EA	12", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....1,578.15	1,578.15	542.26
			<i>For Work In Restricted Working Space, Add</i> .....361.51	361.51	
40 05 23	23-0719	EA	14", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....1,841.36	1,841.36	632.64
			<i>For Work In Restricted Working Space, Add</i> .....421.76	421.76	
40 05 23	23-0720	EA	16", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....2,178.43	2,178.43	721.64
			<i>For Work In Restricted Working Space, Add</i> .....481.10	481.10	
40 05 23	23-0721	EA	18", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....2,740.07	2,740.07	903.77
			<i>For Work In Restricted Working Space, Add</i> .....602.51	602.51	
40 05 23	23-0722	EA	20", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....3,828.51	3,828.51	1,265.28
			<i>For Work In Restricted Working Space, Add</i> .....843.52	843.52	
40 05 23	23-0723	EA	24", Type 316, Schedule 10 Stainless Steel 90 Degree Elbow .....5,500.13	5,500.13	1,807.54
			<i>For Work In Restricted Working Space, Add</i> .....1,205.03	1,205.03	
40 05 23	23-0724		Type 316, Schedule 10 Stainless Steel Butt Weld 45 Degree Elbows (40 05 23 23- 0685)		
40 05 23	23-0725	EA	1/2", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....107.33	107.33	46.08
			<i>For Work In Restricted Working Space, Add</i> .....30.72	30.72	
40 05 23	23-0726	EA	3/4", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....113.62	113.62	48.91
			<i>For Work In Restricted Working Space, Add</i> .....32.61	32.61	
40 05 23	23-0727	EA	1", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....125.08	125.08	53.75
			<i>For Work In Restricted Working Space, Add</i> .....35.84	35.84	
40 05 23	23-0728	EA	1-1/4", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....137.10	137.10	58.58
			<i>For Work In Restricted Working Space, Add</i> .....39.06	39.06	
40 05 23	23-0729	EA	1-1/2", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....149.23	149.23	64.69
			<i>For Work In Restricted Working Space, Add</i> .....43.13	43.13	
40 05 23	23-0730	EA	2", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....166.64	166.64	71.98
			<i>For Work In Restricted Working Space, Add</i> .....47.99	47.99	
40 05 23	23-0731	EA	2-1/2", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....215.26	215.26	92.12
			<i>For Work In Restricted Working Space, Add</i> .....61.41	61.41	
40 05 23	23-0732	EA	3", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....252.76	252.76	107.97
			<i>For Work In Restricted Working Space, Add</i> .....71.97	71.97	
40 05 23	23-0733	EA	4", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....306.71	306.71	129.23
			<i>For Work In Restricted Working Space, Add</i> .....86.15	86.15	
40 05 23	23-0734	EA	6", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....398.86	398.86	161.43
			<i>For Work In Restricted Working Space, Add</i> .....107.62	107.62	
40 05 23	23-0735	EA	8", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....677.41	677.41	271.13
			<i>For Work In Restricted Working Space, Add</i> .....180.76	180.76	
40 05 23	23-0736	EA	10", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....1,036.40	1,036.40	361.51
			<i>For Work In Restricted Working Space, Add</i> .....241.01	241.01	
40 05 23	23-0737	EA	12", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....1,525.88	1,525.88	542.26
			<i>For Work In Restricted Working Space, Add</i> .....361.51	361.51	
40 05 23	23-0738	EA	14", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....1,792.37	1,792.37	632.64
			<i>For Work In Restricted Working Space, Add</i> .....421.76	421.76	
40 05 23	23-0739	EA	16", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....2,088.63	2,088.63	721.64
			<i>For Work In Restricted Working Space, Add</i> .....481.10	481.10	
40 05 23	23-0740	EA	18", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....2,634.31	2,634.31	903.77
			<i>For Work In Restricted Working Space, Add</i> .....602.51	602.51	
40 05 23	23-0741	EA	20", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....3,733.49	3,733.49	1,265.28
			<i>For Work In Restricted Working Space, Add</i> .....843.52	843.52	
40 05 23	23-0742	EA	24", Type 316, Schedule 10 Stainless Steel 45 Degree Elbow .....5,373.57	5,373.57	1,807.54
			<i>For Work In Restricted Working Space, Add</i> .....1,205.03	1,205.03	
40 05 23	23-0743		Type 316, Schedule 10 Stainless Steel Butt Weld Tees (40 05 23 23-0685)		
40 05 23	23-0744	EA	1/2", Type 316, Schedule 10 Stainless Steel Tee .....142.12	142.12	58.57
			<i>For Work In Restricted Working Space, Add</i> .....39.05	39.05	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0745 EA 3/4", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	171.74 47.93	71.90
40 05 23 23-0746 EA 1", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	191.48 53.85	80.78
40 05 23 23-0747 EA 1-1/4", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	219.68 61.41	92.12
40 05 23 23-0748 EA 1-1/2", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	232.75 65.92	98.88
40 05 23 23-0749 EA 2", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	253.05 71.90	107.84
40 05 23 23-0750 EA 2-1/2", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	306.88 86.15	129.23
40 05 23 23-0751 EA 3", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	384.70 107.96	161.94
40 05 23 23-0752 EA 4", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	440.32 121.17	181.76
40 05 23 23-0753 EA 6", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	637.09 161.56	242.34
40 05 23 23-0754 EA 8", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	1,041.90 241.01	361.51
40 05 23 23-0755 EA 10", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	1,614.26 361.51	542.26
40 05 23 23-0756 EA 12", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	2,067.39 451.88	677.82
40 05 23 23-0757 EA 14", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	2,625.33 543.04	814.56
40 05 23 23-0758 EA 16", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	3,116.33 662.45	993.68
40 05 23 23-0759 EA 18", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	3,962.08 843.52	1,265.28
40 05 23 23-0760 EA 20", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	5,322.09 1,109.89	1,664.85
40 05 23 23-0761 EA 24", Type 316, Schedule 10 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	7,690.10 1,687.04	2,530.56
40 05 23 23-0762 Type 316, Schedule 10 Stainless Steel Butt Weld Reducing Tees (40 05 23 23-0685)		
40 05 23 23-0763 EA 3/4", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	131.43 32.62	48.93
40 05 23 23-0764 EA 1", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	157.00 39.97	59.96
40 05 23 23-0765 EA 1-1/4", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	189.14 44.92	67.37
40 05 23 23-0766 EA 1-1/2", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	197.77 51.20	76.80
40 05 23 23-0767 EA 2", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	210.50 55.02	82.52
40 05 23 23-0768 EA 2-1/2", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	275.72 59.96	89.93
40 05 23 23-0769 EA 3", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	278.47 71.87	107.80
40 05 23 23-0770 EA 4", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	369.82 89.83	134.74
40 05 23 23-0771 EA 6", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	504.58 102.64	153.95
40 05 23 23-0772 EA 8", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	940.42 150.63	225.94
40 05 23 23-0773 EA 10", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	1,663.20 200.84	301.26
40 05 23 23-0774 EA 12", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	2,208.35 301.26	451.89
40 05 23 23-0775 EA 14", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	2,527.66 361.92	542.89
40 05 23 23-0776 EA 16", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	3,126.30 441.48	662.21
40 05 23 23-0777 EA 18", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	4,032.31 562.34	843.52
40 05 23 23-0778 EA 20", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	5,697.82 739.93	1,109.89
40 05 23 23-0779 EA 24", Type 316, Schedule 10 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	8,892.24 1,123.70	1,685.54
40 05 23 23-0780 Type 316, Schedule 10 Stainless Steel Butt Weld Reducers (40 05 23 23-0685)		
40 05 23 23-0781 EA 3/4", Type 316, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	106.45 29.66	44.50
40 05 23 23-0782 EA 1", Type 316, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	117.08 32.33	48.49
40 05 23 23-0783 EA 1-1/4", Type 316, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	130.46 35.84	53.75
40 05 23 23-0784 EA 1-1/2", Type 316, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	137.93 39.06	58.58
40 05 23 23-0785 EA 2", Type 316, Schedule 10 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	150.63 43.13	64.69

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0786 EA 2-1/2", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	196.16 53.90	80.84
40 05 23 23-0787 EA 3", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	227.23 61.36	92.04
40 05 23 23-0788 EA 4", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	253.07 71.90	107.84
40 05 23 23-0789 EA 6", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	344.01 91.53	137.30
40 05 23 23-0790 EA 8", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	539.65 144.60	216.91
40 05 23 23-0791 EA 10", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	693.01 180.76	271.13
40 05 23 23-0792 EA 12", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	926.53 241.01	361.51
40 05 23 23-0793 EA 14", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,293.09 316.32	474.48
40 05 23 23-0794 EA 16", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,495.26 360.48	540.71
40 05 23 23-0795 EA 18", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,856.44 451.88	677.82
40 05 23 23-0796 EA 20", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	2,581.75 602.51	903.77
40 05 23 23-0797 EA 24", Type 316, Schedule 10 Stainless Steel Concentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	3,781.86 903.77	1,355.66
40 05 23 23-0798 EA 3/4", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	120.13 29.66	44.50
40 05 23 23-0799 EA 1", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	133.33 32.33	48.49
40 05 23 23-0800 EA 1-1/4", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	149.72 35.84	53.75
40 05 23 23-0801 EA 1-1/2", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	160.46 39.06	58.58
40 05 23 23-0802 EA 2", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	164.54 43.13	64.69
40 05 23 23-0803 EA 2-1/2", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	215.38 53.90	80.84
40 05 23 23-0804 EA 3", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	246.95 61.36	92.04
40 05 23 23-0805 EA 4", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	279.80 71.90	107.84
40 05 23 23-0806 EA 6", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	389.94 91.53	137.30
40 05 23 23-0807 EA 8", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	639.20 144.60	216.91
40 05 23 23-0808 EA 10", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	864.45 180.76	271.13
40 05 23 23-0809 EA 12", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,104.43 241.01	361.51
40 05 23 23-0810 EA 14", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,630.46 316.32	474.48
40 05 23 23-0811 EA 16", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	1,903.02 360.48	540.71
40 05 23 23-0812 EA 18", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	2,363.06 451.88	677.82
40 05 23 23-0813 EA 20", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	3,391.99 602.51	903.77
40 05 23 23-0814 EA 24", Type 316, Schedule 10 Stainless Steel Eccentric Reducer..... <i>For Work In Restricted Working Space, Add</i>	4,743.58 903.77	1,355.66
40 05 23 23-0815 Type 316, Schedule 10 Stainless Steel Butt Weld Caps (40 05 23 23-0885)		
40 05 23 23-0816 EA 1/2", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	58.94 15.36	23.04
40 05 23 23-0817 EA 3/4", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	64.72 16.30	24.45
40 05 23 23-0818 EA 1", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	70.98 17.92	26.87
40 05 23 23-0819 EA 1-1/4", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	77.57 19.53	29.30
40 05 23 23-0820 EA 1-1/2", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	84.21 21.57	32.35
40 05 23 23-0821 EA 2", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	89.65 23.99	35.99
40 05 23 23-0822 EA 2-1/2", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	112.60 30.71	46.07
40 05 23 23-0823 EA 3", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	132.98 35.99	53.99
40 05 23 23-0824 EA 4", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	159.25 43.08	64.61
40 05 23 23-0825 EA 6", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	205.70 53.90	80.84
40 05 23 23-0826 EA 8", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	348.02 90.38	135.56



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0827 EA 10", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	462.21 120.50	180.75
40 05 23 23-0828 EA 12", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	683.66 180.76	271.12
40 05 23 23-0829 EA 14", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	795.70 210.88	316.31
40 05 23 23-0830 EA 16", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	913.22 240.55	360.82
40 05 23 23-0831 EA 18", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	1,149.29 301.26	451.89
40 05 23 23-0832 EA 20", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	1,596.18 421.76	632.64
40 05 23 23-0833 EA 24", Type 316, Schedule 10 Stainless Steel Cap..... <i>For Work In Restricted Working Space, Add</i>	2,381.48 602.51	903.76
40 05 23 23-0834 Type 316, Schedule 40 Stainless Steel Pipe And Butt Weld Fittings (40 05 23 23-0231)		
40 05 23 23-0835 Type 316, Schedule 40 Stainless Steel Pipe (40 05 23 23-0834)		
40 05 23 23-0836 LF 1/2" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	19.98 2.42	4.04
40 05 23 23-0837 LF 3/4" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	24.27 2.97	4.94
40 05 23 23-0838 LF 1" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	29.85 3.48	5.83
40 05 23 23-0839 LF 1-1/4" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	37.32 4.35	7.19
40 05 23 23-0840 LF 1-1/2" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	43.07 4.90	8.08
40 05 23 23-0841 LF 2" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	55.36 6.07	10.33
40 05 23 23-0842 LF 2-1/2" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	69.17 6.94	11.68
40 05 23 23-0843 LF 3" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	66.58 7.81	13.02
40 05 23 23-0844 LF 4" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	112.81 9.24	15.27
40 05 23 23-0845 LF 6" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	177.46 12.14	20.21
40 05 23 23-0846 LF 8" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	311.51 23.00	35.62
40 05 23 23-0847 LF 10" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	397.47 25.31	39.36
40 05 23 23-0848 LF 12" Pipe, Stainless Steel Schedule 40 Type 316 For Welded Butt Fitting..... <i>For Work In Restricted Working Space, Add</i>	498.16 28.12	43.58
40 05 23 23-0849 Type 316, Schedule 40 Stainless Steel Butt Weld 90 Degree Elbows (40 05 23 23-0834)		
40 05 23 23-0850 EA 1/2", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	107.15 30.72	46.08
40 05 23 23-0851 EA 3/4", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	113.44 32.61	48.91
40 05 23 23-0852 EA 1", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	124.91 35.84	53.75
40 05 23 23-0853 EA 1-1/4", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	136.08 39.06	58.58
40 05 23 23-0854 EA 1-1/2", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	150.11 43.13	64.69
40 05 23 23-0855 EA 2", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	168.75 47.99	71.98
40 05 23 23-0856 EA 2-1/2", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	222.83 61.41	92.12
40 05 23 23-0857 EA 3", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	263.49 71.97	107.97
40 05 23 23-0858 EA 4", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	330.47 86.15	129.23
40 05 23 23-0859 EA 6", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	491.08 107.62	161.43
40 05 23 23-0860 EA 8", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	851.33 180.76	271.13
40 05 23 23-0861 EA 10", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	1,346.78 241.01	361.51
40 05 23 23-0862 EA 12", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	1,934.55 361.51	542.26
40 05 23 23-0863 EA 14", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	2,177.75 421.76	632.64
40 05 23 23-0864 EA 16", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	2,617.61 481.10	721.64
40 05 23 23-0865 EA 18", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	3,332.37 602.51	903.77
40 05 23 23-0866 EA 20", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow..... <i>For Work In Restricted Working Space, Add</i>	4,525.16 843.52	1,265.28

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23	23-0867	EA 24", Type 316, Schedule 40 Stainless Steel 90 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	6,551.69 1,205.03	1,807.54
40 05 23	23-0868	Type 316, Schedule 40 Stainless Steel Butt Weld 45 Degree Elbows (40 05 23 23-0834)		
40 05 23	23-0869	EA 1/2", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	108.91 30.72	46.08
40 05 23	23-0870	EA 3/4", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	115.20 32.61	48.91
40 05 23	23-0871	EA 1", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	125.96 35.84	53.75
40 05 23	23-0872	EA 1-1/4", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	136.59 39.06	58.58
40 05 23	23-0873	EA 1-1/2", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	151.16 43.13	64.69
40 05 23	23-0874	EA 2", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	168.75 47.99	71.98
40 05 23	23-0875	EA 2-1/2", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	222.83 61.41	92.12
40 05 23	23-0876	EA 3", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	256.63 71.97	107.97
40 05 23	23-0877	EA 4", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	317.44 86.15	129.23
40 05 23	23-0878	EA 6", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	437.58 107.62	161.43
40 05 23	23-0879	EA 8", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	757.06 180.76	271.13
40 05 23	23-0880	EA 10", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	1,129.53 241.01	361.51
40 05 23	23-0881	EA 12", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	1,643.72 361.51	542.26
40 05 23	23-0882	EA 14", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	1,876.75 421.76	632.64
40 05 23	23-0883	EA 16", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	2,123.78 481.10	721.64
40 05 23	23-0884	EA 18", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	2,717.59 602.51	903.77
40 05 23	23-0885	EA 20", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	3,714.20 843.52	1,265.28
40 05 23	23-0886	EA 24", Type 316, Schedule 40 Stainless Steel 45 Degree Elbow <i>For Work In Restricted Working Space, Add</i>	5,468.69 1,205.03	1,807.54
40 05 23	23-0887	Type 316, Schedule 40 Stainless Steel Butt Weld Tees (40 05 23 23-0834)		
40 05 23	23-0888	EA 1/2", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	143.17 39.05	58.57
40 05 23	23-0889	EA 3/4", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	172.79 47.93	71.90
40 05 23	23-0890	EA 1", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	192.53 53.85	80.78
40 05 23	23-0891	EA 1-1/4", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	221.21 61.41	92.12
40 05 23	23-0892	EA 1-1/2", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	232.75 65.92	98.88
40 05 23	23-0893	EA 2", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	253.75 71.90	107.84
40 05 23	23-0894	EA 2-1/2", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	313.15 86.15	129.23
40 05 23	23-0895	EA 3", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	388.04 107.96	161.94
40 05 23	23-0896	EA 4", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	446.13 121.17	181.76
40 05 23	23-0897	EA 6", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	678.45 161.56	242.34
40 05 23	23-0898	EA 8", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	1,148.16 241.01	361.51
40 05 23	23-0899	EA 10", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	1,894.82 361.51	542.26
40 05 23	23-0900	EA 12", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	2,336.36 451.88	677.82
40 05 23	23-0901	EA 14", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	3,258.05 543.04	814.56
40 05 23	23-0902	EA 16", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	4,028.10 662.45	993.68
40 05 23	23-0903	EA 18", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	5,204.98 843.52	1,265.28
40 05 23	23-0904	EA 20", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	6,774.19 1,109.89	1,664.85
40 05 23	23-0905	EA 24", Type 316, Schedule 40 Stainless Steel Tee <i>For Work In Restricted Working Space, Add</i>	9,787.35 1,687.04	2,530.56
40 05 23	23-0906	Type 316, Schedule 40 Stainless Steel Butt Weld Reducing Tees (40 05 23 23-0834)		



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0907 EA 3/4", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	134.78 32.62	48.93
40 05 23 23-0908 EA 1", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	159.29 39.97	59.96
40 05 23 23-0909 EA 1-1/4", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	203.22 44.92	67.37
40 05 23 23-0910 EA 1-1/2", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	203.23 51.20	76.80
40 05 23 23-0911 EA 2", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	210.50 55.02	82.52
40 05 23 23-0912 EA 2-1/2", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	276.77 59.96	89.93
40 05 23 23-0913 EA 3", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	286.03 71.87	107.80
40 05 23 23-0914 EA 4", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	377.39 89.83	134.74
40 05 23 23-0915 EA 6", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	509.33 102.64	153.95
40 05 23 23-0916 EA 8", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	846.90 150.63	225.94
40 05 23 23-0917 EA 10", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	1,686.59 200.84	301.26
40 05 23 23-0918 EA 12", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	2,255.11 301.26	451.89
40 05 23 23-0919 EA 14", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	2,578.96 361.92	542.89
40 05 23 23-0920 EA 16", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	3,190.56 441.48	662.21
40 05 23 23-0921 EA 18", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	4,116.10 562.34	843.52
40 05 23 23-0922 EA 20", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	5,823.31 739.93	1,109.89
40 05 23 23-0923 EA 24", Type 316, Schedule 40 Stainless Steel Reducing Tee <i>For Work In Restricted Working Space, Add</i>	9,092.10 1,123.70	1,685.54
40 05 23 23-0924 Type 316, Schedule 40 Stainless Steel Butt Weld Reducers (40 05 23 23-0834)		
40 05 23 23-0925 EA 3/4", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	109.26 29.66	44.50
40 05 23 23-0926 EA 1", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	119.89 32.33	48.49
40 05 23 23-0927 EA 1-1/4", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	131.74 35.84	53.75
40 05 23 23-0928 EA 1-1/2", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	141.10 39.06	58.58
40 05 23 23-0929 EA 2", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	152.57 43.13	64.69
40 05 23 23-0930 EA 2-1/2", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	202.35 53.90	80.84
40 05 23 23-0931 EA 3", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	220.37 61.36	92.04
40 05 23 23-0932 EA 4", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	255.51 71.90	107.84
40 05 23 23-0933 EA 6", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	345.24 91.53	137.30
40 05 23 23-0934 EA 8", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	576.48 144.60	216.91
40 05 23 23-0935 EA 10", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	762.38 180.76	271.13
40 05 23 23-0936 EA 12", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	976.33 241.01	361.51
40 05 23 23-0937 EA 14", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	1,387.95 316.32	474.48
40 05 23 23-0938 EA 16", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	1,596.21 360.48	540.71
40 05 23 23-0939 EA 18", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	2,108.61 451.88	677.82
40 05 23 23-0940 EA 20", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	2,851.48 602.51	903.77
40 05 23 23-0941 EA 24", Type 316, Schedule 40 Stainless Steel Concentric Reducer <i>For Work In Restricted Working Space, Add</i>	4,121.96 903.77	1,355.66
40 05 23 23-0942 EA 3/4", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	129.15 29.66	44.50
40 05 23 23-0943 EA 1", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	138.02 32.33	48.49
40 05 23 23-0944 EA 1-1/4", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	158.87 35.84	53.75
40 05 23 23-0945 EA 1-1/2", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	165.92 39.06	58.58
40 05 23 23-0946 EA 2", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	178.97 43.13	64.69
40 05 23 23-0947 EA 2-1/2", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	215.38 53.90	80.84

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23	23-0948	EA	3", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	271.23 61.36	92.04
40 05 23	23-0949	EA	4", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	299.16 71.90	107.84
40 05 23	23-0950	EA	6", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	416.87 91.53	137.30
40 05 23	23-0951	EA	8", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	630.08 144.60	216.91
40 05 23	23-0952	EA	10", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	880.23 180.76	271.13
40 05 23	23-0953	EA	12", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	1,212.02 241.01	361.51
40 05 23	23-0954	EA	14", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	1,783.94 316.32	474.48
40 05 23	23-0955	EA	16", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	2,052.09 360.48	540.71
40 05 23	23-0956	EA	18", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	2,731.79 451.88	677.82
40 05 23	23-0957	EA	20", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	3,529.50 602.51	903.77
40 05 23	23-0958	EA	24", Type 316, Schedule 40 Stainless Steel Eccentric Reducer <i>For Work In Restricted Working Space, Add</i>	5,291.72 903.77	1,355.66
40 05 23	23-0959		Type 316, Schedule 40 Stainless Steel Butt Weld Caps (40 05 23 23-0834)		
40 05 23	23-0960	EA	1/2", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	59.30 15.36	23.04
40 05 23	23-0961	EA	3/4", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	64.55 16.30	24.45
40 05 23	23-0962	EA	1", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	71.34 17.92	26.87
40 05 23	23-0963	EA	1-1/4", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	80.83 19.53	29.30
40 05 23	23-0964	EA	1-1/2", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	81.57 21.57	32.35
40 05 23	23-0965	EA	2", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	92.11 23.99	35.99
40 05 23	23-0966	EA	2-1/2", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	115.80 30.71	46.07
40 05 23	23-0967	EA	3", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	133.51 35.99	53.99
40 05 23	23-0968	EA	4", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	163.13 43.08	64.61
40 05 23	23-0969	EA	6", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	221.89 53.90	80.84
40 05 23	23-0970	EA	8", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	378.44 90.38	135.56
40 05 23	23-0971	EA	10", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	506.97 120.50	180.75
40 05 23	23-0972	EA	12", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	756.86 180.76	271.12
40 05 23	23-0973	EA	14", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	866.64 210.88	316.31
40 05 23	23-0974	EA	16", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	976.77 240.55	360.82
40 05 23	23-0975	EA	18", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	1,242.34 301.26	451.89
40 05 23	23-0976	EA	20", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	1,713.32 421.76	632.64
40 05 23	23-0977	EA	24", Type 316, Schedule 40 Stainless Steel Cap <i>For Work In Restricted Working Space, Add</i>	2,609.59 602.51	903.76
40 05 23	23-0978		Valves (40 05 23 23-0231)		
40 05 23	23-0979		Gate Valves, Class 150 (40 05 23 23-0978)		
40 05 23	23-0980	EA	1/2" Gate Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 200, Deduct</i> <i>For Class 300, Add</i>	489.51 17.36 -115.47 405.76	46.28
40 05 23	23-0981	EA	3/4" Gate Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 200, Deduct</i> <i>For Class 300, Add</i>	532.13 20.25 -124.29 436.76	48.21
40 05 23	23-0982	EA	1" Gate Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 200, Deduct</i> <i>For Class 300, Add</i>	656.30 27.29 -151.23 531.42	72.32
40 05 23	23-0983	EA	1-1/4" Gate Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 200, Deduct</i> <i>For Class 300, Add</i>	826.89 31.44 -193.16 678.76	84.37



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-0984 EA 1-1/2" Gate Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 200, Deduct</i> <i>For Class 300, Add</i>	933.20 39.83 -214.12 752.42	106.20
40 05 23 23-0985 EA 2" Gate Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 200, Deduct</i> <i>For Class 300, Add</i>	1,107.96 48.21 -253.39 890.43	128.52
40 05 23 23-0986 EA 2-1/2" Gate Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 300, Add</i>	1,588.55 52.59 1,328.46	139.80
40 05 23 23-0987 EA 3" Gate Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 300, Add</i>	1,789.64 61.54 1,489.43	163.91
40 05 23 23-0988 EA 4" Gate Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 300, Add</i>	2,371.29 103.30 1,905.33	274.78
40 05 23 23-0989 EA 6" Gate Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 300, Add</i>	3,958.75 130.63 3,311.93	347.09
40 05 23 23-0990 EA 8" Gate Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 300, Add</i>	8,613.72 165.29 7,579.00	443.51
40 05 23 23-0991 EA 10" Gate Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 300, Add</i>	12,133.72 202.47 10,771.29	539.92
40 05 23 23-0992 EA 12" Gate Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 300, Add</i>	18,257.00 245.42 16,392.59	655.62
40 05 23 23-0993 Globe Valves, Class 150 <small>(40 05 23 23-0978)</small>		
40 05 23 23-0994 EA 1/2" Globe Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 200, Deduct</i> <i>For Class 300, Add</i>	667.63 17.36 -163.12 573.19	46.28
40 05 23 23-0995 EA 3/4" Globe Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 200, Deduct</i> <i>For Class 300, Add</i>	739.12 20.25 -179.66 631.33	48.21
40 05 23 23-0996 EA 1" Globe Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 200, Deduct</i> <i>For Class 300, Add</i>	921.66 27.29 -222.21 780.86	72.32
40 05 23 23-0997 EA 1-1/2" Globe Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 200, Deduct</i> <i>For Class 300, Add</i>	1,369.97 39.83 -330.96 1,162.99	106.20
40 05 23 23-0998 EA 2" Globe Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 200, Deduct</i> <i>For Class 300, Add</i>	1,671.88 48.21 -404.24 1,420.52	128.52
40 05 23 23-0999 EA 2-1/2" Globe Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 300, Add</i>	3,356.75 52.59 2,990.56	139.80
40 05 23 23-1000 EA 3" Globe Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 300, Add</i>	3,474.96 61.54 3,073.63	163.91
40 05 23 23-1001 EA 4" Globe Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 300, Add</i>	4,144.39 103.30 3,572.05	274.78
40 05 23 23-1002 EA 6" Globe Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 300, Add</i>	7,637.85 130.63 6,770.28	347.09
40 05 23 23-1003 Check Valves, Class 150 <small>(40 05 23 23-0978)</small>		
40 05 23 23-1004 EA 2-1/2" Check Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 300, Add</i>	1,520.73 52.59 1,264.70	139.80
40 05 23 23-1005 EA 3" Check Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 300, Add</i>	1,592.52 61.54 1,304.14	163.91
40 05 23 23-1006 EA 4" Check Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 300, Add</i>	2,503.52 103.30 2,029.63	274.78
40 05 23 23-1007 EA 6" Check Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 300, Add</i>	4,294.38 130.63 3,627.42	347.09
40 05 23 23-1008 EA 8" Check Valve, Stainless Steel, Flanged <i>For Work In Restricted Working Space, Add</i> <i>For Class 300, Add</i>	7,533.82 165.29 6,563.90	443.51
40 05 23 23-1009 Stainless Steel Thread-O-Let Fittings <small>(40 05 23 23-0231)</small>		

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-1010 EA 1/2", Stainless Steel Thread-o-let Fitting.....	73.03	27.99
<i>For Work In Restricted Working Space, Add</i>	18.66	
40 05 23 23-1011 EA 3/4", Stainless Steel Thread-o-let Fitting.....	96.48	37.32
<i>For Work In Restricted Working Space, Add</i>	24.88	
40 05 23 23-1012 EA 1", Stainless Steel Thread-o-let Fitting.....	118.96	46.28
<i>For Work In Restricted Working Space, Add</i>	30.86	
40 05 23 23-1013 EA 1-1/4", Stainless Steel Thread-o-let Fitting.....	170.54	65.48
<i>For Work In Restricted Working Space, Add</i>	43.66	
40 05 23 23-1014 EA 1-1/2", Stainless Steel Thread-o-let Fitting.....	189.12	73.85
<i>For Work In Restricted Working Space, Add</i>	49.23	
40 05 23 23-1015 EA 2", Stainless Steel Thread-o-let Fitting.....	236.95	93.81
<i>For Work In Restricted Working Space, Add</i>	62.54	
40 05 23 23-1016 EA 2-1/2", Stainless Steel Thread-o-let Fitting.....	416.90	144.62
<i>For Work In Restricted Working Space, Add</i>	96.42	
40 05 23 23-1017 EA 3", Stainless Steel Thread-o-let Fitting.....	555.89	184.62
<i>For Work In Restricted Working Space, Add</i>	123.08	
40 05 23 23-1018 EA 4", Stainless Steel Thread-o-let Fitting.....	729.60	231.39
<i>For Work In Restricted Working Space, Add</i>	154.27	
40 05 23 23-1019 Stainless Steel Flanges (40 05 23 23-0231)		
40 05 23 23-1020 150#, Type 304 Stainless Steel Raised Face Threaded Flange (40 05 23 23-1019)		
40 05 23 23-1021 EA 1/2", 150#, Type 304 Stainless Steel Raised Face Threaded Flange.....	47.02	15.55
<i>For Work In Restricted Working Space, Add</i>	9.33	
40 05 23 23-1022 EA 3/4", 150#, Type 304 Stainless Steel Raised Face Threaded Flange.....	59.15	20.73
<i>For Work In Restricted Working Space, Add</i>	12.44	
40 05 23 23-1023 EA 1", 150#, Type 304 Stainless Steel Raised Face Threaded Flange.....	71.23	25.71
<i>For Work In Restricted Working Space, Add</i>	15.43	
40 05 23 23-1024 EA 1-1/4", 150#, Type 304 Stainless Steel Raised Face Threaded Flange.....	97.88	36.39
<i>For Work In Restricted Working Space, Add</i>	21.83	
40 05 23 23-1025 EA 1-1/2", 150#, Type 304 Stainless Steel Raised Face Threaded Flange.....	107.16	41.03
<i>For Work In Restricted Working Space, Add</i>	24.62	
40 05 23 23-1026 EA 2", 150#, Type 304 Stainless Steel Raised Face Threaded Flange.....	137.14	52.11
<i>For Work In Restricted Working Space, Add</i>	31.27	
40 05 23 23-1027 EA 2-1/2", 150#, Type 304 Stainless Steel Raised Face Threaded Flange.....	206.66	80.31
<i>For Work In Restricted Working Space, Add</i>	48.21	
40 05 23 23-1028 EA 3", 150#, Type 304 Stainless Steel Raised Face Threaded Flange.....	253.23	163.91
<i>For Work In Restricted Working Space, Add</i>	61.54	
40 05 23 23-1029 EA 4", 150#, Type 304 Stainless Steel Raised Face Threaded Flange.....	322.88	128.52
<i>For Work In Restricted Working Space, Add</i>	77.13	
40 05 23 23-1030 300#, Type 304 Stainless Steel Raised Face Threaded Flange (40 05 23 23-1019)		
40 05 23 23-1031 EA 1/2", 300#, Type 304 Stainless Steel Raised Face Threaded Flange.....	56.22	15.55
<i>For Work In Restricted Working Space, Add</i>	9.33	
40 05 23 23-1032 EA 3/4", 300#, Type 304 Stainless Steel Raised Face Threaded Flange.....	66.58	20.73
<i>For Work In Restricted Working Space, Add</i>	12.44	
40 05 23 23-1033 EA 1", 300#, Type 304 Stainless Steel Raised Face Threaded Flange.....	76.53	25.71
<i>For Work In Restricted Working Space, Add</i>	15.43	
40 05 23 23-1034 EA 1-1/4", 300#, Type 304 Stainless Steel Raised Face Threaded Flange.....	111.33	36.39
<i>For Work In Restricted Working Space, Add</i>	21.83	
40 05 23 23-1035 EA 1-1/2", 300#, Type 304 Stainless Steel Raised Face Threaded Flange.....	120.61	41.03
<i>For Work In Restricted Working Space, Add</i>	24.62	
40 05 23 23-1036 EA 2", 300#, Type 304 Stainless Steel Raised Face Threaded Flange.....	150.92	52.11
<i>For Work In Restricted Working Space, Add</i>	31.27	
40 05 23 23-1037 EA 2-1/2", 300#, Type 304 Stainless Steel Raised Face Threaded Flange.....	237.43	80.31
<i>For Work In Restricted Working Space, Add</i>	48.21	
40 05 23 23-1038 EA 3", 300#, Type 304 Stainless Steel Raised Face Threaded Flange.....	284.70	163.91
<i>For Work In Restricted Working Space, Add</i>	61.54	
40 05 23 23-1039 EA 4", 300#, Type 304 Stainless Steel Raised Face Threaded Flange.....	371.33	128.52
<i>For Work In Restricted Working Space, Add</i>	77.13	
40 05 23 23-1040 150#, Type 304 Stainless Steel Raised Face Weld Neck Flange (40 05 23 23-1019)		
40 05 23 23-1041 EA 1/2", 150#, Type 304 Stainless Steel Weld Neck Flange.....	67.11	23.03
<i>For Work In Restricted Working Space, Add</i>	15.36	
40 05 23 23-1042 EA 3/4", 150#, Type 304 Stainless Steel Weld Neck Flange.....	72.02	24.45
<i>For Work In Restricted Working Space, Add</i>	16.30	
40 05 23 23-1043 EA 1", 150#, Type 304 Stainless Steel Weld Neck Flange.....	80.23	26.87
<i>For Work In Restricted Working Space, Add</i>	17.92	
40 05 23 23-1044 EA 1-1/4", 150#, Type 304 Stainless Steel Weld Neck Flange.....	94.51	29.31
<i>For Work In Restricted Working Space, Add</i>	19.55	
40 05 23 23-1045 EA 1-1/2", 150#, Type 304 Stainless Steel Weld Neck Flange.....	101.17	32.31
<i>For Work In Restricted Working Space, Add</i>	21.54	
40 05 23 23-1046 EA 2", 150#, Type 304 Stainless Steel Weld Neck Flange.....	112.53	36.00
<i>For Work In Restricted Working Space, Add</i>	24.00	
40 05 23 23-1047 EA 2-1/2", 150#, Type 304 Stainless Steel Weld Neck Flange.....	151.44	46.03
<i>For Work In Restricted Working Space, Add</i>	30.68	
40 05 23 23-1048 EA 3", 150#, Type 304 Stainless Steel Weld Neck Flange.....	173.51	53.89
<i>For Work In Restricted Working Space, Add</i>	35.93	
40 05 23 23-1049 EA 4", 150#, Type 304 Stainless Steel Weld Neck Flange.....	218.46	64.57
<i>For Work In Restricted Working Space, Add</i>	43.05	



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-1050 EA 6", 150#, Type 304 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	308.71 53.79	80.68
40 05 23 23-1051 EA 8", 150#, Type 304 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	520.49 90.38	135.56
40 05 23 23-1052 EA 10", 150#, Type 304 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	725.21 120.50	180.74
40 05 23 23-1053 EA 12", 150#, Type 304 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	1,107.45 180.76	271.12
40 05 23 23-1054 EA 14", 150#, Type 304 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	1,359.09 210.88	316.31
40 05 23 23-1055 EA 16", 150#, Type 304 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	1,658.07 240.55	360.82
40 05 23 23-1056 EA 18", 150#, Type 304 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	2,044.35 301.26	451.89
40 05 23 23-1057 EA 20", 150#, Type 304 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	2,701.75 421.76	632.64
40 05 23 23-1058 EA 24", 150#, Type 304 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	3,844.76 602.51	903.76
40 05 23 23-1059 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange (40 05 23 23-1019)		
40 05 23 23-1060 EA 1/2" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	78.08 15.36	23.03
40 05 23 23-1061 EA 3/4" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	81.22 16.30	24.45
40 05 23 23-1062 EA 1" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	86.61 17.92	26.87
40 05 23 23-1063 EA 1-1/4" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	106.87 19.55	29.31
40 05 23 23-1064 EA 1-1/2" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	113.53 21.54	32.31
40 05 23 23-1065 EA 2" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	123.14 24.00	36.00
40 05 23 23-1066 EA 2-1/2" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	169.82 30.68	46.03
40 05 23 23-1067 EA 3" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	194.02 35.93	53.89
40 05 23 23-1068 EA 4" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	266.54 43.05	64.57
40 05 23 23-1069 EA 6" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	363.16 53.79	80.68
40 05 23 23-1070 EA 8" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	656.27 90.38	135.56
40 05 23 23-1071 EA 10" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	904.49 120.50	180.74
40 05 23 23-1072 EA 12" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	1,335.18 180.76	271.12
40 05 23 23-1073 EA 14" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	1,719.09 210.88	316.31
40 05 23 23-1074 EA 16" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	2,088.59 240.55	360.82
40 05 23 23-1075 EA 18" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	2,657.38 301.26	451.89
40 05 23 23-1076 EA 20" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	3,486.10 421.76	632.64
40 05 23 23-1077 EA 24" 300#, Type 304 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	5,056.15 602.51	903.76
40 05 23 23-1078 150#, Type 304 Stainless Steel Raised Face Slip-On Flanges (40 05 23 23-1019)		
40 05 23 23-1079 EA 1/2", 150#, Type 304 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	116.54 30.72	46.08
40 05 23 23-1080 EA 3/4", 150#, Type 304 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	123.19 32.61	48.90
40 05 23 23-1081 EA 1", 150#, Type 304 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	135.37 35.84	53.75
40 05 23 23-1082 EA 1-1/4", 150#, Type 304 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	151.87 39.09	58.63
40 05 23 23-1083 EA 1-1/2", 150#, Type 304 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	165.19 43.09	64.62
40 05 23 23-1084 EA 2", 150#, Type 304 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	187.93 47.99	71.99
40 05 23 23-1085 EA 2-1/2", 150#, Type 304 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	243.83 61.37	92.05
40 05 23 23-1086 EA 3", 150#, Type 304 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	281.61 71.86	107.77
40 05 23 23-1087 EA 4", 150#, Type 304 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	344.28 86.10	129.15
40 05 23 23-1088 EA 6", 150#, Type 304 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	445.91 107.57	161.34
40 05 23 23-1089 EA 8", 150#, Type 304 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	767.66 180.76	271.12
40 05 23 23-1090 EA 10" 150#, Type 304 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	1,059.71 241.01	361.51

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23	23-1091	EA	12" 150#, Type 304 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	1,583.73 361.51	542.25
40 05 23	23-1092		300#, Type 304 Stainless Steel Raised Face Slip-On Flanges (40 05 23 23-1019)		
40 05 23	23-1093	EA	1-1/4" 300#, Type 304 Stainless Steel Raised Neck Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	123.62 30.72	46.08
40 05 23	23-1094	EA	3/4" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	129.91 32.61	48.90
40 05 23	23-1095	EA	1" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	140.68 35.84	53.75
40 05 23	23-1096	EA	1-1/4" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	162.84 39.09	58.63
40 05 23	23-1097	EA	1-1/2" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	176.16 43.09	64.62
40 05 23	23-1098	EA	2" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	195.34 47.99	71.99
40 05 23	23-1099	EA	2-1/2" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	271.42 61.37	92.05
40 05 23	23-1100	EA	3" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	309.19 71.86	107.77
40 05 23	23-1101	EA	4" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	382.46 86.10	129.15
40 05 23	23-1102	EA	6" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	553.75 107.57	161.34
40 05 23	23-1103	EA	8" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	876.56 180.76	271.12
40 05 23	23-1104	EA	10" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	1,235.10 241.01	361.51
40 05 23	23-1105	EA	12" 300#, Type 304 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	1,809.33 361.51	542.25
40 05 23	23-1106		150#, Type 304 Stainless Steel Blind Flanges (40 05 23 23-1019)		
40 05 23	23-1107	EA	1/2", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	35.57 6.14	9.21
40 05 23	23-1108	EA	3/4", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	37.29 6.52	9.78
40 05 23	23-1109	EA	1", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	40.53 7.17	10.74
40 05 23	23-1110	EA	1-1/4", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	50.29 7.98	11.96
40 05 23	23-1111	EA	1-1/2", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	59.63 10.78	16.17
40 05 23	23-1112	EA	2", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	69.25 11.97	17.95
40 05 23	23-1113	EA	2-1/2", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	93.01 15.39	23.07
40 05 23	23-1114	EA	3", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	117.83 21.56	32.34
40 05 23	23-1115	EA	4", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	184.10 35.92	53.88
40 05 23	23-1116	EA	6", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	248.02 46.19	69.28
40 05 23	23-1117	EA	8", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	359.66 56.24	84.36
40 05 23	23-1118	EA	10", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	524.08 67.48	101.22
40 05 23	23-1119	EA	12", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	686.05 84.35	126.53
40 05 23	23-1120	EA	14", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	869.38 105.44	158.16
40 05 23	23-1121	EA	16", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	1,097.70 120.28	180.41
40 05 23	23-1122	EA	18", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	1,310.66 150.63	225.94
40 05 23	23-1123	EA	20", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	1,757.41 210.88	316.31
40 05 23	23-1124	EA	24", 150#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	2,550.51 301.26	451.89
40 05 23	23-1125		300#, Type 304 Stainless Steel Blind Flanges (40 05 23 23-1019)		
40 05 23	23-1126	EA	1/2", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	42.77 6.14	9.21
40 05 23	23-1127	EA	3/4", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	44.03 6.52	9.78
40 05 23	23-1128	EA	1", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	46.19 7.17	10.74
40 05 23	23-1129	EA	1-1/4", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	57.00 7.98	11.96
40 05 23	23-1130	EA	1-1/2", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	66.34 10.78	16.17



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-1131 EA 2", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	72.79 11.97	17.95
40 05 23 23-1132 EA 2-1/2", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	117.76 15.39	23.07
40 05 23 23-1133 EA 3", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	140.99 21.56	32.34
40 05 23 23-1134 EA 4", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	213.09 35.92	53.88
40 05 23 23-1135 EA 6", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	367.53 46.19	69.28
40 05 23 23-1136 EA 8", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	502.51 56.24	84.36
40 05 23 23-1137 EA 10", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	698.04 67.48	101.22
40 05 23 23-1138 EA 12", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	953.02 84.35	126.53
40 05 23 23-1139 EA 14", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	1,314.65 105.44	158.16
40 05 23 23-1140 EA 16", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	1,659.87 120.28	180.41
40 05 23 23-1141 EA 18", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	2,156.72 150.63	225.94
40 05 23 23-1142 EA 20", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	2,761.21 210.88	316.31
40 05 23 23-1143 EA 24", 300#, Type 304 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	4,201.52 301.26	451.89
40 05 23 23-1144 150#, Type 316 Stainless Steel Raised Face Threaded Flange (40 05 23 23-1019)		
40 05 23 23-1145 EA 1/2", 150#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	53.40 9.33	15.55
40 05 23 23-1146 EA 3/4", 150#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	67.29 12.44	20.73
40 05 23 23-1147 EA 1", 150#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	78.99 15.43	25.71
40 05 23 23-1148 EA 1-1/4", 150#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	109.54 21.83	36.39
40 05 23 23-1149 EA 1-1/2", 150#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	118.82 24.62	41.03
40 05 23 23-1150 EA 2", 150#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	149.87 31.27	52.11
40 05 23 23-1151 EA 2-1/2", 150#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	225.05 48.21	80.31
40 05 23 23-1152 EA 3", 150#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	276.93 61.54	163.91
40 05 23 23-1153 EA 4", 150#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	356.12 77.13	128.52
40 05 23 23-1154 300#, Type 316 Stainless Steel Raised Face Threaded Flange (40 05 23 23-1019)		
40 05 23 23-1155 EA 1/2", 300#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	65.42 9.33	15.55
40 05 23 23-1156 EA 3/4", 300#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	75.78 12.44	20.73
40 05 23 23-1157 EA 1", 300#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	85.73 15.43	25.71
40 05 23 23-1158 EA 1-1/4", 300#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	129.01 21.83	36.39
40 05 23 23-1159 EA 1-1/2", 300#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	138.29 24.62	41.03
40 05 23 23-1160 EA 2", 300#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	166.48 31.27	52.11
40 05 23 23-1161 EA 2-1/2", 300#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	272.43 48.21	80.31
40 05 23 23-1162 EA 3", 300#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	320.42 61.54	163.91
40 05 23 23-1163 EA 4", 300#, Type 316 Stainless Steel Raised Face Threaded Flange <i>For Work In Restricted Working Space, Add</i>	428.25 77.13	128.52
40 05 23 23-1164 150#, Type 316 Stainless Steel Raised Face Weld Neck Flange (40 05 23 23-1019)		
40 05 23 23-1165 EA 1/2", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	75.24 15.36	23.03
40 05 23 23-1166 EA 3/4", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	80.16 16.30	24.45
40 05 23 23-1167 EA 1", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	89.43 17.92	26.87
40 05 23 23-1168 EA 1-1/4", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	106.53 19.55	29.31
40 05 23 23-1169 EA 1-1/2", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	113.19 21.54	32.31
40 05 23 23-1170 EA 2", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	124.90 24.00	36.00

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-1171 EA 2-1/2", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	172.29 30.68	46.03
40 05 23 23-1172 EA 3", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	192.25 35.93	53.89
40 05 23 23-1173 EA 4", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	250.28 43.05	64.57
40 05 23 23-1174 EA 6", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	363.88 53.79	80.68
40 05 23 23-1175 EA 8", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	605.71 90.38	135.56
40 05 23 23-1176 EA 10", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	867.37 120.50	180.74
40 05 23 23-1177 EA 12", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	1,295.23 180.76	271.12
40 05 23 23-1178 EA 14", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	1,514.61 210.88	316.31
40 05 23 23-1179 EA 16", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	1,861.02 240.55	360.82
40 05 23 23-1180 EA 18", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	2,290.88 301.26	451.89
40 05 23 23-1181 EA 20", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	3,008.89 421.76	632.64
40 05 23 23-1182 EA 24", 150#, Type 316 Stainless Steel Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	4,280.01 602.51	903.76
40 05 23 23-1183 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange (40 05 23 23-1019)		
40 05 23 23-1184 EA 1/2" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	88.68 15.36	23.03
40 05 23 23-1185 EA 3/4" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	91.82 16.30	24.45
40 05 23 23-1186 EA 1" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	97.21 17.92	26.87
40 05 23 23-1187 EA 1-1/4" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	121.39 19.55	29.31
40 05 23 23-1188 EA 1-1/2" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	128.05 21.54	32.31
40 05 23 23-1189 EA 2" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	140.82 24.00	36.00
40 05 23 23-1190 EA 2-1/2" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	200.23 30.68	46.03
40 05 23 23-1191 EA 3" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	222.66 35.93	53.89
40 05 23 23-1192 EA 4" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	319.57 43.05	64.57
40 05 23 23-1193 EA 6" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	494.35 53.79	80.68
40 05 23 23-1194 EA 8" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	790.30 90.38	135.56
40 05 23 23-1195 EA 10" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	1,121.60 120.50	180.74
40 05 23 23-1196 EA 12" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	1,654.12 180.76	271.12
40 05 23 23-1197 EA 14" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	2,182.97 210.88	316.31
40 05 23 23-1198 EA 16" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	2,676.00 240.55	360.82
40 05 23 23-1199 EA 18" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	3,412.07 301.26	451.89
40 05 23 23-1200 EA 20" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	4,435.74 421.76	632.64
40 05 23 23-1201 EA 24" 300#, Type 316 Stainless Steel Raised Face Weld Neck Flange <i>For Work In Restricted Working Space, Add</i>	6,447.47 602.51	903.76
40 05 23 23-1202 150#, Type 316 Stainless Steel Raised Face Slip-On Flanges (40 05 23 23-1019)		
40 05 23 23-1203 EA 1/2", 150#, Type 316 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	120.79 30.72	46.08
40 05 23 23-1204 EA 3/4", 150#, Type 316 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	129.57 32.61	48.90
40 05 23 23-1205 EA 1", 150#, Type 316 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	142.68 35.84	53.75
40 05 23 23-1206 EA 1-1/4", 150#, Type 316 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	178.52 39.09	58.63
40 05 23 23-1207 EA 1-1/2", 150#, Type 316 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	173.68 43.09	64.62
40 05 23 23-1208 EA 2", 150#, Type 316 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	190.04 47.99	71.99
40 05 23 23-1209 EA 2-1/2", 150#, Type 316 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	242.42 61.37	92.05
40 05 23 23-1210 EA 3", 150#, Type 316 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	293.63 71.86	107.77
40 05 23 23-1211 EA 4", 150#, Type 316 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	369.73 86.10	129.15



MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-1212 EA 6", 150#, Type 316 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	483.73 107.57	161.34
40 05 23 23-1213 EA 8", 150#, Type 316 Stainless Steel Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	845.79 180.76	271.12
40 05 23 23-1214 EA 10" 150#, Type 316 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	1,166.50 241.01	361.51
40 05 23 23-1215 EA 12" 150#, Type 316 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	1,726.58 361.51	542.25
40 05 23 23-1216 300#, Type 316 Stainless Steel Raised Face Slip-On Flanges (40 05 23 23-1019)		
40 05 23 23-1217 EA 1/2" 300#, Type 316 Stainless Steel Raised Neck Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	130.69 30.72	46.08
40 05 23 23-1218 EA 3/4" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	136.98 32.61	48.90
40 05 23 23-1219 EA 1" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	147.75 35.84	53.75
40 05 23 23-1220 EA 1-1/4" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	176.62 39.09	58.63
40 05 23 23-1221 EA 1-1/2" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	189.94 43.09	64.62
40 05 23 23-1222 EA 2" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	208.38 47.99	71.99
40 05 23 23-1223 EA 2-1/2" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	302.18 61.37	92.05
40 05 23 23-1224 EA 3" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	340.65 71.86	107.77
40 05 23 23-1225 EA 4" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	431.25 86.10	129.15
40 05 23 23-1226 EA 6" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	624.83 107.57	161.34
40 05 23 23-1227 EA 8" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	949.76 180.76	271.12
40 05 23 23-1228 EA 10" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	1,473.42 241.01	361.51
40 05 23 23-1229 EA 12" 300#, Type 316 Stainless Steel Raised Face Slip-On Flange <i>For Work In Restricted Working Space, Add</i>	2,019.37 361.51	542.25
40 05 23 23-1230 150#, Type 316 Stainless Steel Blind Flanges (40 05 23 23-1019)		
40 05 23 23-1231 EA 1/2", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	38.87 6.14	9.21
40 05 23 23-1232 EA 3/4", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	43.31 6.52	9.78
40 05 23 23-1233 EA 1", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	48.65 7.17	10.74
40 05 23 23-1234 EA 1-1/4", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	56.65 7.98	11.96
40 05 23 23-1235 EA 1-1/2", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	65.99 10.78	16.17
40 05 23 23-1236 EA 2", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	79.86 11.97	17.95
40 05 23 23-1237 EA 2-1/2", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	109.63 15.39	23.07
40 05 23 23-1238 EA 3", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	136.22 21.56	32.34
40 05 23 23-1239 EA 4", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	215.21 35.92	53.88
40 05 23 23-1240 EA 6", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	297.88 46.19	69.28
40 05 23 23-1241 EA 8", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	478.81 56.24	84.36
40 05 23 23-1242 EA 10", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	618.14 67.48	101.22
40 05 23 23-1243 EA 12", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	957.27 84.35	126.53
40 05 23 23-1244 EA 14", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	1,147.06 105.44	158.16
40 05 23 23-1245 EA 16", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	1,471.26 120.28	180.41
40 05 23 23-1246 EA 18", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	1,744.16 150.63	225.94
40 05 23 23-1247 EA 20", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	2,322.75 210.88	316.31
40 05 23 23-1248 EA 24", 150#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	3,379.55 301.26	451.89
40 05 23 23-1249 300#, Type 316 Stainless Steel Blind Flanges (40 05 23 23-1019)		
40 05 23 23-1250 EA 1/2", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	54.79 6.14	9.21
40 05 23 23-1251 EA 3/4", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	56.05 6.52	9.78

40 Process Interconnections**40 05 Common Work Results For Process Interconnections****40 05 23 Stainless Steel Process Pipe and Tubing**

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
40 05 23 23-1252 EA 1", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	58.21 7.17	10.74
40 05 23 23-1253 EA 1-1/4", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	82.83 7.98	11.96
40 05 23 23-1254 EA 1-1/2", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	92.17 10.78	16.17
40 05 23 23-1255 EA 2", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	102.13 11.97	17.95
40 05 23 23-1256 EA 2-1/2", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	163.03 15.39	23.07
40 05 23 23-1257 EA 3", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	187.14 21.56	32.34
40 05 23 23-1258 EA 4", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	290.88 35.92	53.88
40 05 23 23-1259 EA 6", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	500.15 46.19	69.28
40 05 23 23-1260 EA 8", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	639.72 56.24	84.36
40 05 23 23-1261 EA 10", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	1,096.91 67.48	101.22
40 05 23 23-1262 EA 12", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	1,340.92 84.35	126.53
40 05 23 23-1263 EA 14", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	1,910.45 105.44	158.16
40 05 23 23-1264 EA 16", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	2,438.61 120.28	180.41
40 05 23 23-1265 EA 18", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	3,180.20 150.63	225.94
40 05 23 23-1266 EA 20", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	4,034.39 210.88	316.31
40 05 23 23-1267 EA 24", 300#, Type 316 Stainless Steel Raised Face Blind Flange <i>For Work In Restricted Working Space, Add</i>	6,179.27 301.26	451.89
40 05 23 23-1268 Type 316 Seamless Annealed Tubing (40 05 23 23) Note: For high pressure air (8000 PSIG working pressure).		
40 05 23 23-1269 Type 316 Seamless Annealed Tubing (40 05 23 23-1268)		
40 05 23 23-1270 LF 3/8" Outside Diameter Stainless Steel Type 316 Seamless, Annealed, .065 Wall Thickness.....	17.29	
40 05 23 23-1271 LF 1/2" Outside Diameter Stainless Steel Type 316 Seamless, Annealed, .083 Wall Thickness.....	21.38	
40 05 23 23-1272 LF 3/4" Outside Diameter Stainless Steel Type 316 Seamless, Annealed, .120 Wall Thickness.....	25.83	
40 05 23 23-1273 Type 316 Seamless Annealed Tubing Fittings (40 05 23 23-1268) Note: Pressure rating 5000 PSI minimum. Includes front and back ferrules.		
40 05 23 23-1274 EA 3/8" Tube Outside Diameter X 3/8" NPT Stainless Steel Male Connector With Front And Back Ferrules	57.49	
40 05 23 23-1275 EA 3/8" Tube Outside Diameter X 3/8" NPT Stainless Steel Male Elbow With Front And Back Ferrules	62.32	
40 05 23 23-1276 EA 3/8" Tube Outside Diameter X 3/8" NPT Stainless Steel Male Tee With Front And Back Ferrules.....	95.66	
40 05 23 23-1277 EA 3/8" Outside Diameter Stainless Steel Union Elbow With Front And Back Ferrules	49.95	
40 05 23 23-1278 EA 3/8" Outside Diameter Stainless Steel Union Tee With Front And Back Ferrules	82.49	
40 05 23 23-1279 EA 1/2" Tube Outside Diameter X 1/2" NPT Stainless Steel Male Connector With Front And Back Ferrules	62.96	
40 05 23 23-1280 EA 1/2" Tube Outside Diameter X 1/2" NPT Stainless Steel Male Elbow With Front And Back Ferrules	77.09	
40 05 23 23-1281 EA 1/2" Tube Outside Diameter X 1/2" NPT Stainless Steel Male Branch Tee With Front And Back Ferrules	118.62	
40 05 23 23-1282 EA 1/2" Outside Diameter Stainless Steel Union Elbow With Front And Back Ferrules	75.26	
40 05 23 23-1283 EA 1/2" Outside Diameter Stainless Steel Union Tee With Front And Back Ferrules	116.58	
40 05 23 23-1284 EA 3/4" Tube Outside Diameter X 3/4" NPT Stainless Steel Male Connector With Front And Back Ferrules	74.50	
40 05 23 23-1285 EA 3/4" Tube Outside Diameter X 3/4" NPT Stainless Steel Male Elbow With Front And Back Ferrules	95.89	
40 05 23 23-1286 EA 3/4" Tube Outside Diameter X 3/4" NPT Stainless Steel Male Branch Tee With Front And Back Ferrules	158.21	
40 05 23 23-1287 EA 3/4" Outside Diameter Stainless Steel Union Elbow With Front And Back Ferrules	130.29	
40 05 23 23-1288 EA 3/4" Outside Diameter Stainless Steel Union Tee With Front And Back Ferrules	160.80	
40 05 23 23-1289 Valves For High Pressure Air (5,000 PSIG) (40 05 23 23-1288)		
40 05 23 23-1290 Needle Valves (40 05 23 23-1289)		
40 05 23 23-1291 EA 3/8" Tube Fitting Outside Diameter Stainless Steel With Needle Valve Cartridge	290.84	
40 05 23 23-1292 EA 1/2" Tube Fitting Outside Diameter Stainless Steel With Needle Valve Cartridge	460.87	
40 05 23 23-1293 Safety Valve (Code Stamped) Work Pressure, 6,000 PSIG (40 05 23 23-1289)		
40 05 23 23-1294 EA 1/4" NPT Inlet, Safety Valve Spring Loaded 316 Stainless Steel Construction.....	278.58	
40 05 23 23-1295 Other Valves Working Pressure 6,000 PSI (40 05 23 23-1289)		
40 05 23 23-1296 EA 1/4" NPT Pressure Reducing Valve Spring Loaded, Stainless Steel Body, 6,000 PSIG.....	1,149.77	
40 05 23 23-1297 EA 1/4" NPT Pressure Gauge, Liquid Filled, 6,000 PSIG, Blow Out Back.....	289.70	
40 05 23 23-1298 EA Snubber 316 Stainless Steel Body, Rated For Design Pressure With Sinterec Element.....	56.81	



Process Interconnections		40
Common Work Results For Process Interconnections		40 05
Stainless Steel Process Pipe and Tubing		40 05 23

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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END OF SECTION 40

NOT FOR BID

40 Process Interconnections

40 05 Common Work Results For Process Interconnections

40 05 23 Stainless Steel Process Pipe and Tubing



MINOR
CSI UOM DESCRIPTION

TOTAL DIRECT DEMOLITION
UNIT COST UNIT COST

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MINOR	CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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41 Material Processing And Handling Equipment

41 01 Operation And Maintenance Of Material Processing And Handling Equipment ⁽⁴¹⁾

41 01 20 Operation And Maintenance Of Piece Material Handling Equipment ^(41 01)

41 01 20 13 Operation And Maintenance Of Hoists Or Cranes ^(41 01 20)

41 01 20 13-0001 Maintenance ^(41 01 20 13)

41 01 20 13-0002	EA	Regular Inspection	314.26
41 01 20 13-0003	HR	Hoist Or Crane Servicing, Labor Only	94.00
41 01 20 13-0004	MO	Hoist Or Crane Maintenance Contract	786.36

41 20 Piece Material Handling Equipment ⁽⁴¹⁾

41 22 Cranes And Hoists ^(41 20)

41 22 23 Hoists ^(41 22)

41 22 23 13 Fixed Hoists ^(41 22 23)

41 22 23 13-0001 Air-Powered Chain Hoists ^(41 22 23 13)

Note: Excludes beam.

41 22 23 13-0002	EA	500 LB Capacity, Air-Powered Chain Hoist	4,177.26	308.40
41 22 23 13-0003	EA	1,000 LB Capacity, Air-Powered Chain Hoist	4,224.13	308.40
41 22 23 13-0004	EA	2,000 LB Capacity, Air-Powered Chain Hoist	5,070.99	308.40
41 22 23 13-0005	EA	4,000 LB Capacity, Air-Powered Chain Hoist	6,399.11	411.20
41 22 23 13-0006	EA	6,000 LB Capacity, Air-Powered Chain Hoist	8,084.61	513.99
41 22 23 13-0007	EA	8,000 LB Capacity, Air-Powered Chain Hoist	9,526.34	755.36
41 22 23 13-0008	EA	10,000 LB Capacity, Air-Powered Chain Hoist	11,015.15	912.34
41 22 23 13-0009	EA	12,000 LB Capacity, Air-Powered Chain Hoist	12,250.47	912.34

41 22 23 13-0010 Electric Hoists ^(41 22 23 13)

41 22 23 13-0011 Electric Industrial Chain Hoists ^(41 22 23 13-0010)

Note: Includes 20' of chain. Excludes beams.

41 22 23 13-0012	EA	500 LB Capacity, Electric Industrial Chain Hoist	2,989.87	298.11
		<i>For DC Electrical Operated, Add</i>	597.96	
		<i>For Each LF Copper Conductor Bar, Add</i>	10.50	
41 22 23 13-0013	EA	1,000 LB Capacity, Electric Industrial Chain Hoist	3,120.73	298.11
		<i>For DC Electrical Operated, Add</i>	630.27	
		<i>For Each LF Copper Conductor Bar, Add</i>	10.50	
41 22 23 13-0014	EA	2,000 LB Capacity, Electric Industrial Chain Hoist	3,450.13	298.11
		<i>For DC Electrical Operated, Add</i>	710.16	
		<i>For Each LF Copper Conductor Bar, Add</i>	10.50	
41 22 23 13-0015	EA	3,000 LB Capacity, Electric Industrial Chain Hoist	5,203.28	308.40
		<i>For DC Electrical Operated, Add</i>	1,141.94	
		<i>For Each LF Copper Conductor Bar, Add</i>	10.50	
41 22 23 13-0016	EA	4,000 LB Capacity, Electric Industrial Chain Hoist	4,483.41	308.40
		<i>For DC Electrical Operated, Add</i>	960.14	
		<i>For Each LF Copper Conductor Bar, Add</i>	10.50	
41 22 23 13-0017	EA	5,000 LB Capacity, Electric Industrial Chain Hoist	6,412.65	318.67
		<i>For DC Electrical Operated, Add</i>	1,434.17	
		<i>For Each LF Copper Conductor Bar, Add</i>	10.50	
41 22 23 13-0018	EA	6,000 LB Capacity, Electric Industrial Chain Hoist	5,797.67	349.51
		<i>For DC Electrical Operated, Add</i>	1,251.66	
		<i>For Each LF Copper Conductor Bar, Add</i>	10.50	
41 22 23 13-0019	EA	7,500 LB Capacity, Electric Industrial Chain Hoist	7,171.36	431.75
		<i>For DC Electrical Operated, Add</i>	1,590.05	
		<i>For Each LF Copper Conductor Bar, Add</i>	10.50	
41 22 23 13-0020	EA	10,000 LB Capacity, Electric Industrial Chain Hoist	8,501.53	454.53
		<i>For DC Electrical Operated, Add</i>	1,928.80	
		<i>For Each LF Copper Conductor Bar, Add</i>	10.50	
41 22 23 13-0021	EA	15,000 LB Capacity, Electric Industrial Chain Hoist	13,685.43	474.30
		<i>For DC Electrical Operated, Add</i>	3,184.00	
		<i>For Each LF Copper Conductor Bar, Add</i>	10.50	
41 22 23 13-0022	EA	20,000 LB Capacity, Electric Industrial Chain Hoist	16,399.55	494.07
		<i>For DC Electrical Operated, Add</i>	3,852.26	
		<i>For Each LF Copper Conductor Bar, Add</i>	10.50	
41 22 23 13-0023	EA	25,000 LB Capacity, Electric Industrial Chain Hoist	22,698.26	513.82
		<i>For DC Electrical Operated, Add</i>	5,416.39	
		<i>For Each LF Copper Conductor Bar, Add</i>	10.50	
41 22 23 13-0024	EA	30,000 LB Capacity, Electric Industrial Chain Hoist	29,055.49	563.24
		<i>For DC Electrical Operated, Add</i>	6,980.87	
		<i>For Each LF Copper Conductor Bar, Add</i>	10.50	

41 Material Processing And Handling Equipment**41 20 Piece Material Handling Equipment****41 22 Cranes And Hoists**
 MINOR
 CSI UOM DESCRIPTION

 TOTAL DIRECT DEMOLITION
 UNIT COST UNIT COST

MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
41 22 23	13-0025		Hand Chain Hoists <small>(41 22 23 13)</small>		
41 22 23	13-0026	EA	1,000 LB Capacity, Hand Chain Hoist.....	1,104.56	123.91
41 22 23	13-0027	EA	2,000 LB Capacity, Hand Chain Hoist.....	1,291.43	125.60
41 22 23	13-0028	EA	3,000 LB Capacity, Hand Chain Hoist.....	1,715.38	131.54
41 22 23	13-0029	EA	4,000 LB Capacity, Hand Chain Hoist.....	1,923.54	133.24
41 22 23	13-0030	EA	5,000 LB Capacity, Hand Chain Hoist.....	2,311.22	140.03
41 22 23	13-0031	EA	6,000 LB Capacity, Hand Chain Hoist.....	2,591.79	163.79
41 22 23	13-0032	EA	10,000 LB Capacity, Hand Chain Hoist.....	3,565.43	168.88
41 22 23	13-0033	EA	16,000 LB Capacity, Hand Chain Hoist.....	4,647.74	203.68
41 22 23	13-0034	EA	20,000 LB Capacity, Hand Chain Hoist.....	5,659.33	213.02
41 22 23	13-0035	EA	30,000 LB Capacity, Hand Chain Hoist.....	9,909.78	243.57

END OF SECTION 41



Process Gas and Liquid Handling, Purification, and Storage Equipment	43	43
Liquid Handling Equipment	43 20	
Dry Location Liquid Pumps	43 23	

MINOR CSI UOM DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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43 Process Gas and Liquid Handling, Purification, and Storage Equipment

43 20 Liquid Handling Equipment ⁽⁴³⁾

43 23 Dry Location Liquid Pumps ^(43 20)

43 23 78 Controlled Volume Horizontal Reciprocating Pumps ^(43 23)

43 23 78 31 Controlled Volume Horizontal Mechanically-Coupled Diaphragm Simplex Reciprocating Pumps ^(43 23 78)

43 23 78 31-0001 Diaphragm Pump ^(43 23 78 31)

43 23 78 31-0002 EA 28 GPH Diaphragm Pump, Adjustable Flow 0-100% 250 PSI2,835.57

43 24 Suspended Liquid Pumps ^(43 20)

43 24 41 Archimedes Screw Pumps ^(43 24)

43 24 41 23 Positive-Displacement Inclined Closed-casing Archimedes Screw-type Pumps ^(43 24 41)

43 24 41 23-0001 Positive Displacement Pump ^(43 24 41 23)

43 24 41 23-0002 EA 25 GPH Positive Displacement Pump, Adjustable Flow 0-100% 200 PSI Neoprene Packing2,343.59

43 40 Gas and Liquid Storage ⁽⁴³⁾

43 42 Pressurized Tanks And Vessels ^(43 40)

43 42 41 Metallic Specialty Pressure Tanks ^(43 42)

43 42 41 00-0001 L.P.G. Tanks With Regulator And Safety Controls ^(43 42 41)

43 42 41 00-0002 EA 250 Gallon Aboveground LP Gas Storage Tank	1,292.94	106.96
43 42 41 00-0003 EA 500 Gallon Aboveground LP Gas Storage Tank	2,371.99	160.44
43 42 41 00-0004 EA 1,000 Gallon Aboveground LP Gas Storage Tank	3,365.47	171.14

END OF SECTION 43

43 Process Gas and Liquid Handling, Purification, and Storage Equipment

43 40 Gas and Liquid Storage

43 42 Pressurized Tanks And Vessels



MINOR	CSI	UOM	DESCRIPTION	TOTAL DIRECT UNIT COST	DEMOLITION UNIT COST
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