

APPENDIX D: Improvement Alternative Cost Analysis

City of Molalla Project 198.16		New Glass-Fused-to-Steel 2.0 MG Reservoir Phase I 10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 446,000	\$ 446,000
Demolition & Site Prep	1	LS	\$ 743,000	\$ 743,000
Tree Removal	330	EA	\$ 250	\$ 82,500
Excavation / Stabilization	6,500	CY	\$ 70	\$ 455,000
Access Roadway	1	LS	\$ 35,000	\$ 35,000
Retaining Wall	1	LS	\$ 20,000	\$ 20,000
Reservoir	1	LS	\$ 1,100,000	\$ 1,100,000
Concrete Foundation	1	LS	\$ 430,000	\$ 430,000
Misc. Piping	1	LS	\$ 75,000	\$ 75,000
Seismic Valve	1	LS	\$ 113,000	\$ 113,000
Instrumentation, Controls & Telemetry	1	LS	\$ 175,000	\$ 175,000
Seismic Evaluation	1	LS	\$ 150,000	\$ 150,000
Effluent Flow Meter & Bypass	1	LS	\$ 75,000	\$ 75,000
Electrical	1	LS	\$ 260,000	\$ 260,000
			Construction	\$ 4,160,000
			Contingency	\$ 1,040,000
			Engineering	\$ 624,000
			Construction Management	\$ 416,000
			Land Acquisition	\$ 125,000
			Permits / Inspection	\$ 20,000
			Geotechnical	\$ 40,000
			Legal / Admin.	\$ 125,000
			Total Project Cost	\$ 6,550,000

City of Molalla Project 198.16		2.0 MG Tank Exterior Resurfacing Phase I 10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Demolition & Site Prep	1	LS	\$ 109,000	\$ 109,000
Surface Removal, Painting, & Coating	1	LS	\$ 1,086,000	\$ 1,086,000
			Construction	\$ 1,195,000
			Contingency	\$ 299,000
			Engineering	\$ 180,000
			Construction Management	\$ 120,000
			Legal / Admin.	\$ 36,000
			Total Project Cost	\$ 1,830,000

City of Molalla Project 198.16		Treated Water Storage Tank Seismic Valves Phase I 10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 27,000	\$ 27,000
Demolition & Site Prep	1	LS	\$ 11,000	\$ 11,000
Seismic Valve Assembly	2	EA	\$ 60,000	\$ 120,000
Instrumentation & Controls	1	LS	\$ 40,000	\$ 40,000
Misc. Piping	1	LS	\$ 40,000	\$ 40,000
Surface Removal & Replacement	1	LS	\$ 5,000	\$ 5,000
Foundation Stabilization	30	CY	\$ 55	\$ 1,650
Rock Excavation	30	CY	\$ 110	\$ 3,300
			Construction	\$ 248,000
			Contingency	\$ 62,000
			Engineering	\$ 38,000
			Construction Management	\$ 25,000
			Legal / Admin.	\$ 8,000
			Total Project Cost	\$ 381,000

City of Molalla Project 198.16		New Molalla River Raw Water Intake Phase I 10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 225,000	\$ 225,000
Demolition & Site Prep	1	LS	\$ 150,000	\$ 150,000
Erosion Control	1	LS	\$ 40,000	\$ 40,000
Embankment Stabilization	1	LS	\$ 50,000	\$ 50,000
Control of Water	1	LS	\$ 80,000	\$ 80,000
Isolation Area Set Up	1	LS	\$ 100,000	\$ 100,000
Intake Structure	1	LS	\$ 350,000	\$ 350,000
Access Gangway	1	LS	\$ 100,000	\$ 100,000
Fish Friendly Screen & Air Burst System	1	LS	\$ 150,000	\$ 150,000
New Raw Water IPS Pump	1	EA	\$ 82,000	\$ 82,000
Instrumentation, Controls, & Telemetry	1	LS	\$ 65,000	\$ 65,000
Electrical	1	LS	\$ 95,000	\$ 95,000
Raw Water Intake Connection	1	LS	\$ 20,000	\$ 20,000
Raw Water Piping	1	LS	\$ 30,000	\$ 30,000
20" Raw Water Line	600	LF	\$ 200	\$ 120,000
Tie into Existing Raw Water Intake Piping	1	LS	\$ 20,000	\$ 20,000
Infiltration Gallery	1	LS	\$ 120,000	\$ 120,000
Rock Excavation	1	LS	\$ 75,000	\$ 75,000
			Construction	\$ 1,872,000
			Contingency	\$ 468,000
			Engineering	\$ 281,000
			Construction Management	\$ 188,000
			Environmental / Permits	\$ 50,000
			Geotechnical	\$ 30,000
			Legal / Admin.	\$ 57,000
			Total Project Cost	\$ 2,946,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase I		
Project #1: Eckerd Ave and E. 2nd St.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 46,000	\$ 46,000
Temporary Protection & Direction of Traffic	1	LS	\$ 22,000	\$ 22,000
Demolition & Site Prep	1	LS	\$ 19,000	\$ 19,000
8" Dia. Water Main & Appurtenances	1400	LF	\$ 190	\$ 266,000
Surface Removal & Replacement	1400	LF	\$ 35	\$ 49,000
Foundation Stabilization	40	CY	\$ 55	\$ 2,200
Rock Excavation	40	CY	\$ 110	\$ 4,400
Water Service Replacement	13	EA	\$ 3,000	\$ 39,000
			Construction	\$ 448,000
			Contingency	\$ 112,000
			Engineering	\$ 68,000
			Construction Management	\$ 45,000
			Legal / Admin.	\$ 14,000
			Total Project Cost	\$ 687,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase I		
Project #2: Lola Ave.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 56,000	\$ 56,000
Temporary Protection & Direction of Traffic	1	LS	\$ 27,000	\$ 27,000
Demolition & Site Prep	1	LS	\$ 23,000	\$ 23,000
8" Dia. Water Main & Appurtenances	1400	LF	\$ 190	\$ 266,000
Surface Removal & Replacement	1400	LF	\$ 35	\$ 49,000
Foundation Stabilization	40	CY	\$ 55	\$ 2,200
Rock Excavation	40	CY	\$ 110	\$ 4,400
Water Service Replacement	40	EA	\$ 3,000	\$ 120,000
			Construction	\$ 548,000
			Contingency	\$ 137,000
			Engineering	\$ 83,000
			Construction Management	\$ 55,000
			Legal / Admin.	\$ 17,000
			Total Project Cost	\$ 840,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase I		
Project #3: Swigle Ave.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 23,000	\$ 23,000
Temporary Protection & Direction of Traffic	1	LS	\$ 11,000	\$ 11,000
Demolition & Site Prep	1	LS	\$ 10,000	\$ 10,000
8" Dia. Water Main & Appurtenances	750	LF	\$ 190	\$ 142,500
Surface Removal & Replacement	750	LF	\$ 35	\$ 26,250
Foundation Stabilization	20	CY	\$ 55	\$ 1,100
Rock Excavation	20	CY	\$ 110	\$ 2,200
Water Service Replacement	3	EA	\$ 3,000	\$ 9,000
			Construction	\$ 226,000
			Contingency	\$ 57,000
			Engineering	\$ 34,000
			Construction Management	\$ 23,000
			Legal / Admin.	\$ 7,000
			Total Project Cost	\$ 347,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase I		
Project #4: Metzler Ave, W 3rd St, & W 4th St.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 101,000	\$ 101,000
Temporary Protection & Direction of Traffic	1	LS	\$ 49,000	\$ 49,000
Demolition & Site Prep	1	LS	\$ 41,000	\$ 41,000
8" Dia. Water Main & Appurtenances	2900	LF	\$ 190	\$ 551,000
Surface Removal & Replacement	2900	LF	\$ 35	\$ 101,500
Foundation Stabilization	60	CY	\$ 55	\$ 3,300
Rock Excavation	60	CY	\$ 110	\$ 6,600
Water Service Replacement	48	EA	\$ 3,000	\$ 144,000
			Construction	\$ 998,000
			Contingency	\$ 250,000
			Engineering	\$ 150,000
			Construction Management	\$ 100,000
			Legal / Admin.	\$ 30,000
			Total Project Cost	\$ 1,528,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase I		
Project #5: Hart St. and Section St.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 66,000	\$ 66,000
Temporary Protection & Direction of Traffic	1	LS	\$ 32,000	\$ 32,000
Demolition & Site Prep	1	LS	\$ 27,000	\$ 27,000
8" Dia. Water Main & Appurtenances	2000	LF	\$ 190	\$ 380,000
Surface Removal & Replacement	2000	LF	\$ 35	\$ 70,000
Foundation Stabilization	50	CY	\$ 55	\$ 2,750
Rock Excavation	50	CY	\$ 110	\$ 5,500
Water Service Replacement	21	EA	\$ 3,000	\$ 63,000
			Construction	\$ 647,000
			Contingency	\$ 162,000
			Engineering	\$ 98,000
			Construction Management	\$ 65,000
			Legal / Admin.	\$ 20,000
			Total Project Cost	\$ 992,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase I		
Project #6: South Molalla Ave, E 6th St, & May St.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 73,000	\$ 73,000
Temporary Protection & Direction of Traffic	1	LS	\$ 35,000	\$ 35,000
Demolition & Site Prep	1	LS	\$ 29,000	\$ 29,000
8" Dia. Water Main & Appurtenances	2100	LF	\$ 190	\$ 399,000
Surface Removal & Replacement	2100	LF	\$ 35	\$ 73,500
Foundation Stabilization	50	CY	\$ 55	\$ 2,750
Rock Excavation	50	CY	\$ 110	\$ 5,500
Water Service Replacement	33	EA	\$ 3,000	\$ 99,000
			Construction	\$ 717,000
			Contingency	\$ 180,000
			Engineering	\$ 108,000
			Construction Management	\$ 72,000
			Legal / Admin.	\$ 22,000
			Total Project Cost	\$ 1,099,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase I		
Project #7: E 6th, E 7th St, & S Cole Ave.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 116,000	\$ 116,000
Temporary Protection & Direction of Traffic	1	LS	\$ 56,000	\$ 56,000
Demolition & Site Prep	1	LS	\$ 47,000	\$ 47,000
8" Dia. Water Main & Appurtenances	3400	LF	\$ 190	\$ 646,000
Surface Removal & Replacement	3400	LF	\$ 35	\$ 119,000
Foundation Stabilization	80	CY	\$ 55	\$ 4,400
Rock Excavation	80	CY	\$ 110	\$ 8,800
Water Service Replacement	48	EA	\$ 3,000	\$ 144,000
			Construction	\$ 1,142,000
			Contingency	\$ 286,000
			Engineering	\$ 172,000
			Construction Management	\$ 115,000
			Legal / Admin.	\$ 35,000
			Total Project Cost	\$ 1,750,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase I		
Project #8: E 3rd St, E 4th St, & Stowers Rd.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 55,000	\$ 55,000
Temporary Protection & Direction of Traffic	1	LS	\$ 27,000	\$ 27,000
Demolition & Site Prep	1	LS	\$ 22,000	\$ 22,000
8" Dia. Water Main & Appurtenances	1400	LF	\$ 190	\$ 266,000
Surface Removal & Replacement	1400	LF	\$ 35	\$ 49,000
Foundation Stabilization	40	CY	\$ 55	\$ 2,200
Rock Excavation	40	CY	\$ 110	\$ 4,400
Water Service Replacement	39	EA	\$ 3,000	\$ 117,000
			Construction	\$ 543,000
			Contingency	\$ 136,000
			Engineering	\$ 82,000
			Construction Management	\$ 55,000
			Legal / Admin.	\$ 17,000
			Total Project Cost	\$ 833,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase I		
Project #9: Molalla Elem. School & PW Shops		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 60,000	\$ 60,000
Temporary Protection & Direction of Traffic	1	LS	\$ 29,000	\$ 29,000
Demolition & Site Prep	1	LS	\$ 24,000	\$ 24,000
8" Dia. Water Main & Appurtenances	1550	LF	\$ 190	\$ 294,500
Surface Removal & Replacement	1550	LF	\$ 35	\$ 54,250
Foundation Stabilization	40	CY	\$ 55	\$ 2,200
Rock Excavation	40	CY	\$ 110	\$ 4,400
Water Service Replacement	39	EA	\$ 3,000	\$ 117,000
			Construction	\$ 586,000
			Contingency	\$ 147,000
			Engineering	\$ 88,000
			Construction Management	\$ 59,000
			Legal / Admin.	\$ 18,000
			Total Project Cost	\$ 898,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase II		
Project #10: North Cole Ave.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 21,000	\$ 21,000
Temporary Protection & Direction of Traffic	1	LS	\$ 10,000	\$ 10,000
Demolition & Site Prep	1	LS	\$ 9,000	\$ 9,000
10" Dia. Water Main and Appurtenances	600	LF	\$ 200	\$ 120,000
Surface Removal & Replacement	600	LF	\$ 35	\$ 21,000
Foundation Stabilization	20	CY	\$ 55	\$ 1,100
Rock Excavation	20	CY	\$ 110	\$ 2,200
Water Service Replacement	7	EA	\$ 3,000	\$ 21,000
			Construction	\$ 206,000
			Contingency	\$ 52,000
			Engineering	\$ 31,000
			Construction Management	\$ 21,000
			Legal / Admin.	\$ 7,000
			Total Project Cost	\$ 317,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase II		
Project #11: Toliver Dr, Kennel St, & W Ross St.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 81,000	\$ 81,000
Temporary Protection & Direction of Traffic	1	LS	\$ 39,000	\$ 39,000
Demolition & Site Prep	1	LS	\$ 33,000	\$ 33,000
8" Dia. Water Main & Appurtenances	2300	LF	\$ 190	\$ 437,000
Surface Removal & Replacement	2300	LF	\$ 35	\$ 80,500
Foundation Stabilization	60	CY	\$ 55	\$ 3,300
Rock Excavation	60	CY	\$ 110	\$ 6,600
Water Service Replacement	39	EA	\$ 3,000	\$ 117,000
			Construction	\$ 798,000
			Contingency	\$ 200,000
			Engineering	\$ 120,000
			Construction Management	\$ 80,000
			Legal / Admin.	\$ 24,000
			Total Project Cost	\$ 1,222,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase II		
Project #12: W Heintz St.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 67,000	\$ 67,000
Temporary Protection & Direction of Traffic	1	LS	\$ 32,000	\$ 32,000
Demolition & Site Prep	1	LS	\$ 27,000	\$ 27,000
8" Dia. Water Main & Appurtenances	1900	LF	\$ 190	\$ 361,000
Surface Removal & Replacement	1900	LF	\$ 35	\$ 66,500
Foundation Stabilization	50	CY	\$ 55	\$ 2,750
Rock Excavation	50	CY	\$ 110	\$ 5,500
Water Service Replacement	31	EA	\$ 3,000	\$ 93,000
			Construction	\$ 655,000
			Contingency	\$ 164,000
			Engineering	\$ 99,000
			Construction Management	\$ 66,000
			Legal / Admin.	\$ 20,000
			Total Project Cost	\$ 1,004,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase II		
Project #13: Robbins St. & Fenton Ave.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 68,000	\$ 68,000
Temporary Protection & Direction of Traffic	1	LS	\$ 33,000	\$ 33,000
Demolition & Site Prep	1	LS	\$ 28,000	\$ 28,000
8" Dia. Water Main & Appurtenances	2000	LF	\$ 190	\$ 380,000
Surface Removal & Replacement	2000	LF	\$ 35	\$ 70,000
Foundation Stabilization	50	CY	\$ 55	\$ 2,750
Rock Excavation	50	CY	\$ 110	\$ 5,500
Water Service Replacement	28	EA	\$ 3,000	\$ 84,000
			Construction	\$ 672,000
			Contingency	\$ 168,000
			Engineering	\$ 101,000
			Construction Management	\$ 68,000
			Legal / Admin.	\$ 21,000
			Total Project Cost	\$ 1,030,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase II		
Project #14: Riddings Ave.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 68,000	\$ 68,000
Temporary Protection & Direction of Traffic	1	LS	\$ 33,000	\$ 33,000
Demolition & Site Prep	1	LS	\$ 28,000	\$ 28,000
8" Dia. Water Main & Appurtenances	2100	LF	\$ 190	\$ 399,000
Surface Removal & Replacement	2100	LF	\$ 35	\$ 73,500
Foundation Stabilization	50	CY	\$ 55	\$ 2,750
Rock Excavation	50	CY	\$ 110	\$ 5,500
Water Service Replacement	21	EA	\$ 3,000	\$ 63,000
			Construction	\$ 673,000
			Contingency	\$ 169,000
			Engineering	\$ 101,000
			Construction Management	\$ 68,000
			Legal / Admin.	\$ 21,000
			Total Project Cost	\$ 1,032,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase II		
Project #15: Toliver Rd.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 41,000	\$ 41,000
Temporary Protection & Direction of Traffic	1	LS	\$ 20,000	\$ 20,000
Demolition & Site Prep	1	LS	\$ 17,000	\$ 17,000
8" Dia. Water Main & Appurtenances	1100	LF	\$ 190	\$ 209,000
Surface Removal & Replacement	1100	LF	\$ 35	\$ 38,500
Directional Drill 8" Dia. Water Main	200	LF	\$ 250	\$ 50,000
Foundation Stabilization	40	CY	\$ 55	\$ 2,200
Rock Excavation	40	CY	\$ 110	\$ 4,400
Water Service Replacement	7	EA	\$ 3,000	\$ 21,000
			Construction	\$ 404,000
			Contingency	\$ 101,000
			Engineering	\$ 61,000
			Construction Management	\$ 41,000
			Legal / Admin.	\$ 13,000
			Total Project Cost	\$ 620,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase III		
Project #16: Frances St.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 48,000	\$ 48,000
Temporary Protection & Direction of Traffic	1	LS	\$ 23,000	\$ 23,000
Demolition & Site Prep	1	LS	\$ 19,000	\$ 19,000
8" Dia. Water Main & Appurtenances	1400	LF	\$ 190	\$ 266,000
Surface Removal & Replacement	1400	LF	\$ 35	\$ 49,000
Foundation Stabilization	40	CY	\$ 55	\$ 2,200
Rock Excavation	40	CY	\$ 110	\$ 4,400
Water Service Replacement	19	EA	\$ 3,000	\$ 57,000
			Construction	\$ 469,000
			Contingency	\$ 118,000
			Engineering	\$ 71,000
			Construction Management	\$ 47,000
			Legal / Admin.	\$ 15,000
			Total Project Cost	\$ 720,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase III		
Project #17: Shirley St.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 127,000	\$ 127,000
Temporary Protection & Direction of Traffic	1	LS	\$ 61,000	\$ 61,000
Demolition & Site Prep	1	LS	\$ 51,000	\$ 51,000
14" Dia. Water Main & Appurtenances	3600	LF	\$ 220	\$ 792,000
Surface Removal & Replacement	3600	LF	\$ 48	\$ 171,360
Foundation Stabilization	70	CY	\$ 55	\$ 3,850
Rock Excavation	70	CY	\$ 110	\$ 7,700
Water Service Replacement	12	EA	\$ 3,000	\$ 36,000
			Construction	\$ 1,250,000
			Contingency	\$ 313,000
			Engineering	\$ 188,000
			Construction Management	\$ 125,000
			Legal / Admin.	\$ 38,000
			Total Project Cost	\$ 1,914,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase III		
Project #18: Frances St. & N Cole Ave.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 116,000	\$ 116,000
Temporary Protection & Direction of Traffic	1	LS	\$ 56,000	\$ 56,000
Demolition & Site Prep	1	LS	\$ 47,000	\$ 47,000
14" Dia. Water Main & Appurtenances	3500	LF	\$ 220	\$ 770,000
Surface Removal & Replacement	3500	LF	\$ 35	\$ 122,500
Foundation Stabilization	80	CY	\$ 55	\$ 4,400
Rock Excavation	80	CY	\$ 110	\$ 8,800
Water Service Replacement	6	EA	\$ 3,000	\$ 18,000
			Construction	\$ 1,143,000
			Contingency	\$ 286,000
			Engineering	\$ 172,000
			Construction Management	\$ 115,000
			Legal / Admin.	\$ 35,000
			Total Project Cost	\$ 1,751,000

City of Molalla		Distribution System Improvement Projects		
Project 198.16		Phase III		
Project #19: S Molalla Forest Rd. to S Molalla Ave.		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 246,000	\$ 246,000
Temporary Protection & Direction of Traffic	1	LS	\$ 118,000	\$ 118,000
Demolition & Site Prep	1	LS	\$ 99,000	\$ 99,000
Pressure Reducing Valve	1	LS	\$ 125,000	\$ 125,000
12" Dia. Water Main & Appurtenances	7400	LF	\$ 210	\$ 1,554,000
Surface Removal & Replacement	7400	LF	\$ 35	\$ 259,000
Foundation Stabilization	120	CY	\$ 55	\$ 6,600
Rock Excavation	120	CY	\$ 110	\$ 13,200
Water Service Replacement	2	EA	\$ 3,000	\$ 6,000
			Construction	\$ 2,427,000
			Contingency	\$ 607,000
			Engineering	\$ 365,000
			Construction Management	\$ 243,000
			Legal / Admin.	\$ 73,000
			Total Project Cost	\$ 3,715,000

City of Molalla	Remove and Replace Polymer and Soda Ash Bulk Storage Tanks
Project 198.16	Phase I
	10/12/2020

Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 9,000	\$ 9,000
Misc. Piping & Fittings	1	LS	\$ 5,000	\$ 5,000
Demolition & Site Prep	1	LS	\$ 3,000	\$ 3,000
Bulk Chemical Storage Tank	2	EA	\$ 11,000	\$ 22,000
Containment	1	LS	\$ 20,000	\$ 20,000
Tank Support & Anchorage	1	LS	\$ 10,000	\$ 10,000
Instrumentation, Controls & Telemetry	1	LS	\$ 4,000	\$ 4,000
Electrical	1	LS	\$ 5,000	\$ 5,000
			Construction	\$ 78,000
			Contingency	\$ 19,500
			Engineering	\$ 11,700
			Construction Management	\$ 7,800
			Legal / Admin.	\$ 2,400
			Total Project Cost	\$ 120,000

City of Molalla		Pressure Reducing Valves		
Project 198.16		Phase I		
		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 69,000	\$ 69,000
Temporary Protection & Direction of Traffic	1	LS	\$ 33,000	\$ 33,000
Demolition & Site Prep	1	LS	\$ 28,000	\$ 28,000
PRV Station	4	EA	\$ 55,000	\$ 220,000
Misc. Piping	1	LS	\$ 200,000	\$ 200,000
Surface Removal & Replacement	1	LS	\$ 20,000	\$ 20,000
Landscaping	1	LS	\$ 20,000	\$ 20,000
Misc. Sitework	1	LS	\$ 80,000	\$ 80,000
Foundation Stabilization	50	CY	\$ 55	\$ 2,750
Rock Excavation	50	CY	\$ 110	\$ 5,500
			Construction	\$ 679,000
			Contingency	\$ 170,000
			Engineering	\$ 102,000
			Construction Management	\$ 68,000
			Legal / Admin.	\$ 21,000
			Total Project Cost	\$ 1,040,000

City of Molalla		Transmission Main Reroute and Replacement			Phase III
Project 198.16					10/12/2020
Item	Quantity	Unit	Unit Cost	Total Cost	
Temp. Facilities & Control	1	LS	\$ 210,000	\$ 210,000	
Temporary Protection & Direction of Traffic	1	LS	\$ 101,000	\$ 101,000	
Demolition & Site Prep	1	LS	\$ 84,000	\$ 84,000	
18" Dia. Water Main & Appurtenances	5500	LF	\$ 250	\$ 1,375,000	
Surface Removal & Replacement	5500	LF	\$ 35	\$ 192,500	
Foundation Stabilization	120	CY	\$ 55	\$ 6,600	
Rock Excavation	120	CY	\$ 110	\$ 13,200	
Service Line - 6"	460	LF	\$ 180	\$ 82,800	
Service Connection	1	EA	\$ 2,000	\$ 2,000	
				Construction	\$ 2,068,000
				Contingency	\$ 517,000
				Engineering	\$ 311,000
				Construction Management	\$ 207,000
				Legal / Admin.	\$ 63,000
				Total Project Cost	\$ 3,166,000

City of Molalla		Comprehensive Leak Analysis Program		
Project 198.16		Phase I		
		10/12/2020		
Item	Quantity	Unit	Unit Cost	Total Cost
Temp. Facilities & Control	1	LS	\$ 3,000	\$ 3,000
Leak Detection	1	LS	\$ 21,000	\$ 21,000
Temporary Protection & Direction of Traffic	1	LS	\$ 2,000	\$ 2,000
Construction				\$ 26,000
Contingency				\$ 6,500
Engineering				\$ 6,500
Construction Management				\$ 2,600
Legal / Admin.				\$ 800
Total Project Cost				\$ 42,400