APPENDIX E - CAPITAL IMPROVEMENT PLAN

Project Identifier	Priority 1 Improvements	Opinion of Probable Cost	Percent SDC Eligible*	SDC Amount	SDC Comment
1A	Silver Creek Pump Station - New Intake and Transmission Line Improvements	$ 3,500,000	56%	$ 1,960,000	Assumes 100% of pipeline cost and the percent increase in screen capacity attributed to growth
1B	Abiqua Intake - Dam Removal and new intake	$ 8,200,000	56%	$ 4,592,000	Storage volume primarily needed for growth (existing deficit is only 0.03 MG). However, storage does improve fire protection and redundancy to overall system. Booster pump primarily for backup to Edison Booster.
1C	Backwash - Backwash Study and NPDES Permit for WTP	$ 25,000	0%	$ -	Upgrade provides backup to existing zone, mutually benefits existing and future users. Additional PRV supply becomes more critical with growth.
1D	New Water Treatment Plant - 4.0 MGD Package Plant	$ 5,800,000	56%	$ 3,248,000	New water treatment which doubles the existing capacity.
1E	New 1 MG Storage Tank and Booster Pump Station - Edison Road Property	$ 2,387,000	93%	$ 2,219,910	Additional 0.93 MG projected need for 2050 planning period. Allocation beyond planning period is not SDC eligible.
1F	2nd Supply to Anderson PRV Zone	$ 153,000	0%	$ -	
1G	Transmission to West Plateau Service Area	$ 702,000	30%	$ 210,600	Upgrade provides backup to existing zone, trasmission also recommended with new tank, mutually benefits existing and future users
1H	Silver Creek Plaza Area Improvements	$ 694,000	0%	$ -	Primarily addresses existing fire protection deficiencies.
1I	Western Avenue Improvements	$ 286,000	0%	$ -	Primarily addresses redundant supply to school. Off-site piping facilitate adjacent to undeveloped parcels not SDC eligible, but could be recuperated at time of development.
1J	Breyonna Way Loop	$ 58,000	0%	$ -	Primarily addresses redundant supply and looping needs.
1K	N. 3rd Street Improvements	$ 223,000	0%	$ -	Primarily addresses inadequate fire protection to existing commercial areas.
1L	Washington and Lincoln Street Improvements	$ 467,000	0%	$ -	Allows abandonment of existing lines.
1M	Kent Street and Sweden Circle	$ 35,000	0%	$ -	Loops existing line.
1N	Woodland Drive NE and Oregon Garden/Relocate backflow prevention on Oregon Garden	$ 287,000	0%	$ -	Needed for redundant supply source. Off-site piping facilitate adjacent to undeveloped parcels not SDC eligible, but could be recuperated at time of development.
1O	Hobart Road Improvements	$ 246,000	23%	$ 56,580	Replaces existing undersized lines. However, large diameter pipelines are intended for future transmission and will accommodate growth adjacent to pipeline.
1P	New High Level Pumphouse	$ 898,000	68%	$ 610,640	Some of this work may be done with new WTP
	Total (Priority 1)	*$ 23,961,000*		*$ 12,897,730*	

Project Identifier	Priority 2 Improvements	Opinion of Probable Cost	Percent SDC Eligible		SDC Comment
2A	Abiqua Intake Line - Replace 1,110' of 14" steel transmission line	$ 705,000	25%	$ 176,250	Replaces existing undersized line. May be done with new WTP project.
2B	Cowing to Smith Improvements	$ 588,000	0%	$ -	Primarily intended to replace existing undersized lines.
2C	Fiske Street Improvements	$ 292,000	0%	$ -	Replaces existing lines.
2D	Industry Way Improvements	$ 358,000	0%	$ -	Provides fire protection to existing structures.
2E	Pioneer and Evans Valley Improvements	$ 899,000	26%	$ 233,740	Includes pipeline upsize costs only.
2F	Oak Street Improvements	$ 553,000	40%	$ 221,200	Primarily benefits existing users with improved fire protection and pressures. Improvements also needed for looping and supply for new growth and expansion of pressure zones.
2G	Industrial Area Improvements	$ 480,000	23%	$ 110,400	Upsize costs allocated to SDC. Project will probably be developer funded.
2H	Main and 5th Improvements	$ 641,000	0%	$ -	Replaces existing small diameter pipelines.
2I	Well and Orchard Improvements	$ 286,000	0%	$ -	Improves local fire protection.
2J	Extend Service to Future Park	$ 34,000	0%	$ -	
2K	Future 1 MG Tank	$ 1,634,000	100%	$ 1,634,000	Timing and location dependent on future growth.
2L	Lewis Street Improvements	$ 390,000	0%	$ -	Primarily addresses existing fire protection deficiencies.
2M	Water Street Improvements	$ 1,110,000	14%	$ 155,400	Replaces existing line, and provides improved transmission. Transmission improvements needed to accommodates development to south. If required for growth, only upsize costs are eligible for SDC. Keller Associates recommends coordinating with development need.
2N	Pine Street Improvements	$ 178,000	15%	$ 26,700	Primarily needed to improve local fire protection. However, upsizing of new pipeline provides some benefit for transmission for new growth.
2O	Keene and Ash Street Improvements	$ 507,000	0%	$ -	Replaces existing older and undersized pipelines.
2P	High Level Tank Improvements	$ 329,000	0%	$ -	Upgrades and repairs needed regardless of development.
	Total (Priority 2)	*$ 8,984,000*		*$ 2,557,690*	

Silverton
2020 Water Master Plan: Capital Improvement Plan

Project Identifier	Priority 3 Improvements	Opinion of Probable Cost	Percent SDC Eligible		SDC Comment
3A	Setness St, Quarry Ave, and Lanham Lane	$ 1,432,000	7%	$ 100,240	Replaces existing lines and provides looping. Pipe upsizing for growth.
3B	Meridian Rd NE	$ 4,000	100%	$ 4,000	Includes only upsize costs.
3C	Commerce Court and Industry Way	$ 48,000	100%	$ 48,000	Development funded.
3D	N. 1st Street from Jefferson Road to Hobart Road	$ 334,000	14%	$ 46,760	Future transmission improvement. Pipe upsize costs only. Probably best to wait until development installs.
3E	Northwest 12-inch Loop (Hobart Road to Pine Street)	$ 149,000	100%	$ 149,000	Includes only upsize costs.
3F	Pine Street from April Ln to Airport Rd.	$ 739,000	15%	$ 110,850	Primarily benefits local area which is largely developed, portion of pipeline upsize cost attributed to SDC.
3G	West 12" line from Pine and April Ln, south to Railway Avenue	$ 73,000	100%	$ 73,000	Includes only upsize costs.
3H	Low Pressure Zone Loop from Westfield and Center westward and north to Railway Avenue	$ 61,000	100%	$ 61,000	Includes only upsize costs.
3I	10" Connection from Safeway to Fire Department	$ 70,000	14%	$ 9,800	Includes only upsize costs.
3J	Transmission from New PRV to Anderson PRV Zone	$ 1,961,000	14%	$ 274,540	Replaces undersized existing lines. Only upsize cost allocated to SDC.
3K	Cherry Street From Phelps to Welch	$ 79,000	0%	$ -	Improves looping of existing system.
3L	James St from Western to Pine	$ 453,000	13%	$ 58,890	Includes pipeline upsize cost.
3M	Loop around old high school site	$ -	100%	$ -	Development funded.
3N	N. 2nd from C Street to TJ Lane	$ 638,000	4%	$ 25,520	Includes pipeline upsize costs.
3O	N. 1st from A to C and Front St from A to C	$ 205,000	0%	$ -	Improves existing fire protection.
3P	N. 2nd from Main to B St	$ 311,000	0%	$ -	Improves existing fire protection.
3Q	Water St from Peach to Brown St, then on Brown from N Webb to Schlador	$ 1,912,000	16%	$ 305,920	Mutual benefit. Improves transmission for new growth; improves fire protection . Pipe upsize cost allocated to SDC.
3R	Anderson PRV Zone Loop from Westfield and Center westward and northeast to Westfield and Main	$ 77,000	100%	$ 77,000	Includes only upsize costs.
3S	Future Pioneer Rd Alignment from Crestview Dr to Oak St	$ 70,000	100%	$ 70,000	Includes only upsize costs.
3T	Future Pioneer Rd Alignment from Skookum Dr and Eastview Lane to Evans Valley Rd	$ 54,000	100%	$ 54,000	Includes only upsize costs.
3U	Eastview from Tillicum to Storage Reservoir	$ 400,000	0%	$ -	Provides high pressure service to existing and future users near tank site. Likely to be development driven. No pipe upsizing.
3V	Booster and eastward extension from Eastview Dr. to Future Eastview Booster Service Area	$ 90,000	100%	$ 90,000	Includes only upsize costs.
3W	Hawk Dr and Ike Mooney Rd	$ 11,000	100%	$ 11,000	Includes only upsize costs.
3X	Extension into Silverton Mobile Home Estates	$ 333,000	0%	$ -	Anticipated to be LID funded to serve existing development.
3Y	Sunset Lane from Victor Point to Edison	$ -	100%	$ -	Development funded.
3Z	Connection from current High School site through mobile home park to Pine St	$ 222,000	0%	$ -	Anticipated to be LID funded to serve existing development.
3AA	Robinson St and Church St	$ 244,000	0%	$ -	Improves service and fire protection and local looping.
3BB	Norway from Chadwick to Oak St	$ 156,000	0%	$ -	Improves service and fire protection and local looping.
3CC	Kent Street from East Park to N. Ames St	$ 134,000	0%	$ -	Improves looping. May be best until development requires.
3DD	Maple Street near Grant and N. Water	$ 178,000	0%	$ -	Replaces existing undersized lines.
	Total (Priority 3)	*$ 10,438,000*		*$ 1,569,520*	
	TOTAL	**$ 43,383,000**		**$ 17,024,940**	

Silverton

2020 Water Master Plan: Capital Improvement Plan

ITEM	UNIT	UNIT PRICE
Radio Read Meter and Box installed	EA	$2,000
PRV Station With Access Vault, Drainage and SCADA	EA	$50,000
Check Valve	EA	$10,000
Onsite Hypochlorite Generation System 15ppd	EA	$65,000
Backflow prevention units	EA	$10,000
SCADA set up and integration	EA	$40,000
SCADA per site	EA	$15,000
All pipe material is PVC -		
8" Pipe - Installed with fittings and hydrants, trenching and backfill included	LF	$80
10" Pipe - Installed with fittings and hydrants, trenching and backfill included	LF	$90
12" Pipe - Installed with fittings and hydrants, trenching and backfill included	LF	$100
14" Pipe - Installed with fittings and hydrants, trenching and backfill included	LF	$120
16" Pipe - Installed with fittings and hydrants, trenching and backfill included	LF	$140
24" Pipe - Installed with fittings, trenching and backfill included	LF	$170
Upsize10" - difference between 8 and 10-inch	LF	$10
Upsize 12" - difference between 8 and 12-inch	LF	$20
Reconnect water services (includes temp. above gound water service, new service to meter, excl. asph.)	EA	$1,700
Directional Bore for Services - Includes connection	EA	$1,500
Control Density Backfill - additional cost	LF	$40
5ft width Pavement Repair (4-inches thick)	LF	$50
10 ft width pavement Repair (6-inches thick)	LF	$100
Traffic Control	LF	$5
Full Gravel Road for Maintenance Access (12 ft width)	LF	$100
Rock Excavation	CY	$185
Slope stabalization	LF	$75
Mobilization - Percent of Item Cost Sum	%	6%
Contingency - % of construction costs	%	25%
Engineering and CMS - Percent of construction costs	%	20%
Future Contingency	%	35%

The cost estimate herein is based on our perception of current conditions at the project location. This estimate reflects our opinion of probable costs at this time and is subject to change as the project design matures. City has no control over variances in the cost of labor, materials, equipment, services provided by others, contractor's methods of determining prices, competitive bidding or market conditions, practices or bidding strategies. City cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the cost presented herein.

Project 1A - New Silver Creek Intake and 1,700 feet of 18" Pipeline

Item	Unit	Unit Price	Estimated Quantity	Item Cost
300' of 18" DI and 1,400' of 18" C900 Pipe	LF	$355	1,700	$603,500
Intake Demolition	LS	$30,000	1	$30,000
Intake Structure	LS	$136,000	1	$136,000
Electrical including generator	LS	$300,000	1	$300,000
Intake Earthwork	LS	$286,000	1	$286,000
Fence and Gates	LS	$10,000	1	$10,000
Valve Vault	LS	$6,250	1	$6,250
Vertical Traveling Screen	LS	$128,000	1	$128,000
Mechanical	LS	$60,000	1	$60,000
Instrumentation	LS	$13,000	1	$13,000
Controls	LS	$77,000	1	$77,000
Pumps	EA	$90,000	2	$180,000
Temporary Traffic Control	LS	$30,000	1	$30,000
Temporary Erosion and Sediment Control	LS	$30,000	1	$30,000
Rock Excavation	LS	$5,000	1	$5,000
Temporary Intake, Pump, and Screen	LS	$141,000	1	$141,000
Fish Exclusion and Work Area Isolation	LS	$10,000	1	$10,000
PGE Allowance	LS	$10,000	1	$10,000
Site Restoration	LS	$25,000	1	$25,000
			Construction Subtotal:	**$2,080,750**
Contractor Profit and Overhead	%	10%		$208,075.00
Mobilization - Percent of Item Cost Sum	%	6%		$124,845.00
Contingency - % of construction costs	%	30%		$624,225
Engineering and CMS - % of construction costs	%	22%		$457,765.00
			Project Total:	**$3,495,660**

1D - New Water Treatment Plant - 4.0 MGD Package Plant

Item	Unit	Unit Price	Estimated Quantity	Item Cost
Package Treatment Plant	LS	$950,000	1	$950,000
Freight	LS	$50,000	1	$50,000
Railing -walkway	ft	$100	150	$15,000
Grating - walkway	sq ft	$150	750	$112,500
Painting basins onsite	sq ft	$0	2,640	$0
50,000 gallon backwash recovery tank	GAL	$3	50,000	$150,000
Electrical	LS	$125,000	1	$125,000
HVAC	LS	$100,000	1	$100,000
Mechanical and Plumbing	LS	$300,000	1	$300,000
New treatment building	SF	$200	5,500	$1,100,000
Site Civil/Demolition	SF	$10	37,157	$371,570
Chemical Storage tanks	EA	$10,000	3	$30,000
Yard Piping	LS	$45,000	1	$45,000
			Construction Subtotal:	**$3,349,070**
Contractor Profit and Overhead	%	12%		$401,888.40
Mobilization - Percent of Item Cost Sum	%	6%		$200,944.20
Contingency - % of construction costs	%	30%		$1,004,721
Engineering and CMS - % of construction costs	%	25%		$837,267.50
			Project Total:	**$5,793,891**

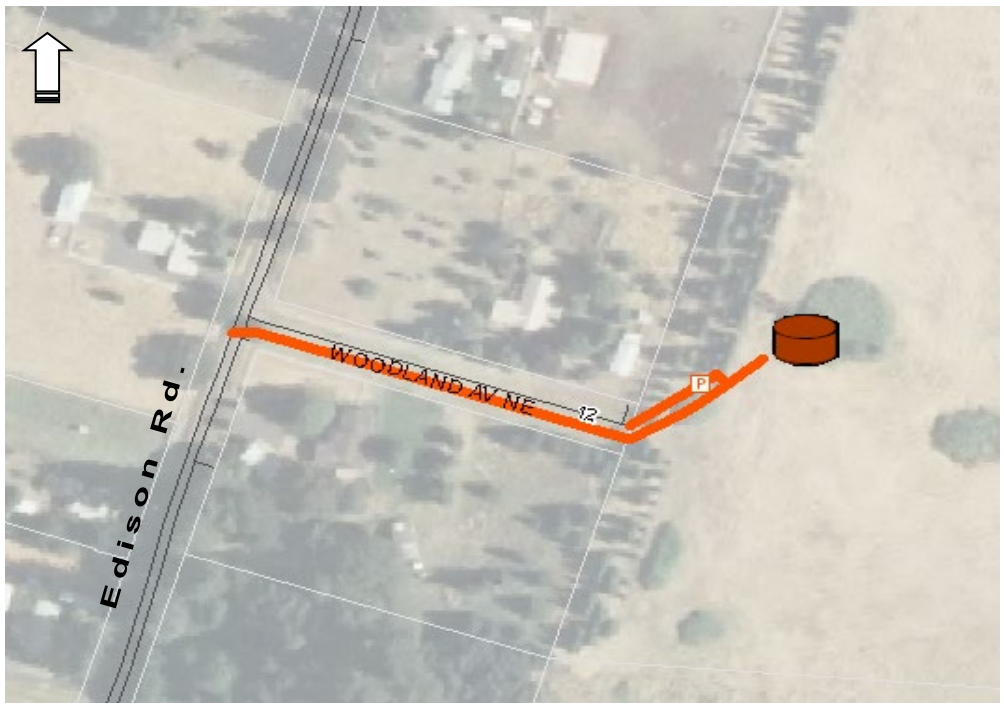
Water Master Plan Project:
New 1 MG Storage Tank and Booster Pump

Project Identifier:
1E

Objective:
This reservoir will provide for the emergency and operational storage needs of the system on the west part of Silverton. The booster will provide a backup to the Edison fire booster. In general both the booster and storage tank reduce the current vulnerability in the existing system. Storage is sized to meet 2020 needs.

Potential Issues:
Above ground vs. buried (cost assumes above ground)
Concrete vs. Steel (cost assumes concrete)
Drainage and overflow provisions

Project Location: Woodland Ave NE and Edison Rd



General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Fence, security, and lighting	LS	$75,000	1	$75,000
Yard piping and connection to existing system	LS	$180,000	1	$180,000
Earthwork including drainage overflow pond	LS	$90,000	1	$90,000
1MG Prestressed Concrete Tank with concrete roof	LS	$750,000	1	$750,000
Tank ladder and access	LS	$50,000	1	$50,000
Install 1,000 gpm Booster Pump	EA	$75,000	1	$75,000
Mixing System	EA	$10,000	1	$10,000
Rechlorination System	EA	$50,000	1	$50,000
Mechanical, Electrical, and Instrumentation	LS	$80,000	1	$80,000
Altitude Valve on Existing High Level tank	LS	$35,000	1	$35,000
Landscaping	LS	$25,000	1	$25,000
Gravel access road	LF	$100	400	$40,000
Building	LS	$80,000	1	$80,000
Subtotal				*$1,540,000*
Mobilization	%	6%		$92,400
Total Construction Costs				*$1,632,400*
Contingency as % of total construction costs	%	25%		$408,000
Land Purchase and Easements	LS	$0		$0
SCADA Integration and Controls	LS	20,000		$20,000
Engineering and CMS as % of total construction costs	%	20%		$326,480
Total Project Cost	$2,387,000			

Water Master Plan Project:
2nd Supply to Anderson PRV Zone

Project Identifier:
1F

Objective:
Eliminates the vulnerability of a single supply point to the Anderson PRV Zone and provides for higher fire flow requirements at sites such as Robert Frost Elementary and Silverton Hospital.

Potential Issues:
Coordinate pressure set points with existing Anderson PRV.

Project Location: Eureka Ave NE and Oregon Garden

General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 12" pipe (includes trenching, backfill, maint. valves, hydrants, and fittings)	LF	$100	295	$29,500
5ft width Pavement Repair (4-inches thick)	LF	$50	145	$7,250
Install new PRV station with access vault	EA	$50,000	1	$50,000
Rock Excavation (bedrock or boulders)	CY	185	25	$4,625
Subtotal				*$91,375*
Mobilization	%	6%		$5,483
Total Construction Costs				*$96,858*
Contingency as % of total construction costs	%	25%		$24,000
SCADA	LS	$12,000		$12,000
Engineering and CMS as % of total construction costs	%	20%		$19,372
Total Project Cost				$153,000

Water Master Plan Project:
Transmission to West Upper Service Area

Project Identifier:
1G

Objective:
Eliminates the vulnerability of a single supply point to the West upper service area, allows for improved fire flow and storage.

Potential Issues:
Rock
Steep Slope
Silver Creek Crossing
Easement and access requirements
High pressure pipeline

Project Location: Peach Ave To Edison Ave

General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 12" pipe (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$100	1,900	$190,000
5ft width Pavement Repair (4-inches thick)	LF	$50	670	$33,500
Traffic Control	LF	$5	670	$3,350
Silver Creek Crossing (100ft)	LS	$125,000	1	$125,000
Rock Excavation (bedrock or boulders)	CY	185	200	$37,000
Slope stabilization and work	LF	$85	200	$17,000
Additional for high pressure pipeline	LF	$7	1,700	$11,900
Subtotal				*$417,750*
Mobilization	%	6%		$25,065
Total Construction Costs				*$442,815*
Contingency as % of total construction costs	%	25%		$111,000
Easement Acquisition	LS	$59,000		$59,000
Engineering and CMS as % of total construction costs	%	20%		$88,563
Total Project Cost				$702,000

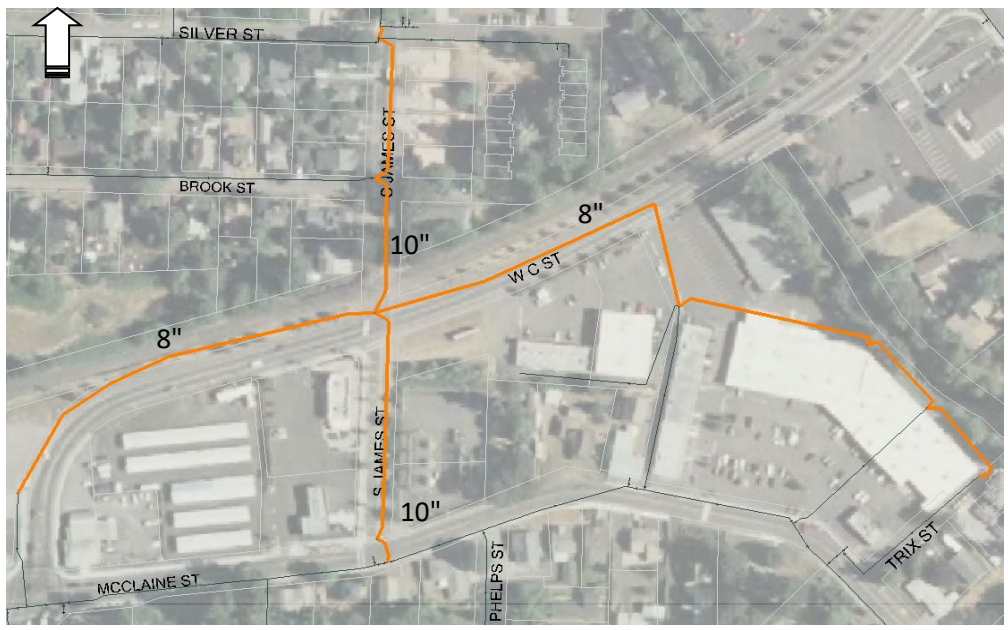
Water Master Plan Project:
Silver Creek Plaza Area Improvements

Project Identifier:
1H (replacement lines and new lines)

Objective:
Improves fire flow, transmission, and hydrant coverage to surrounding areas.

Potential Issues:
Traffic control and business access
Easements and continued service through construction

Project Location: Silver Creek Plaza



General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 10" pipe on S. James (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$90	950	$85,500
Install 8" line on West C Street	LF	$80	2,000	$160,000
5ft width Pavement Repair (4-inches thick)	LF	$50	3,094	$154,700
Traffic Control	LF	$5	3,000	$15,000
Reconnect services	EA	$1,700	12	$20,400
Rock Excavation (bedrock or boulders)	CY	185	20	$3,700
Landscape	LS	5,000	1	$5,000
Subtotal				*$444,300*
Mobilization	%	6%		$26,658
Total Construction Costs				*$470,958*
Contingency as % of total construction costs	%	25%		$118,000
Easements	LS	$10,000		$10,000
Engineering and CMS as % of total construction costs	%	20%		$94,192
Total Project Cost			$694,000	

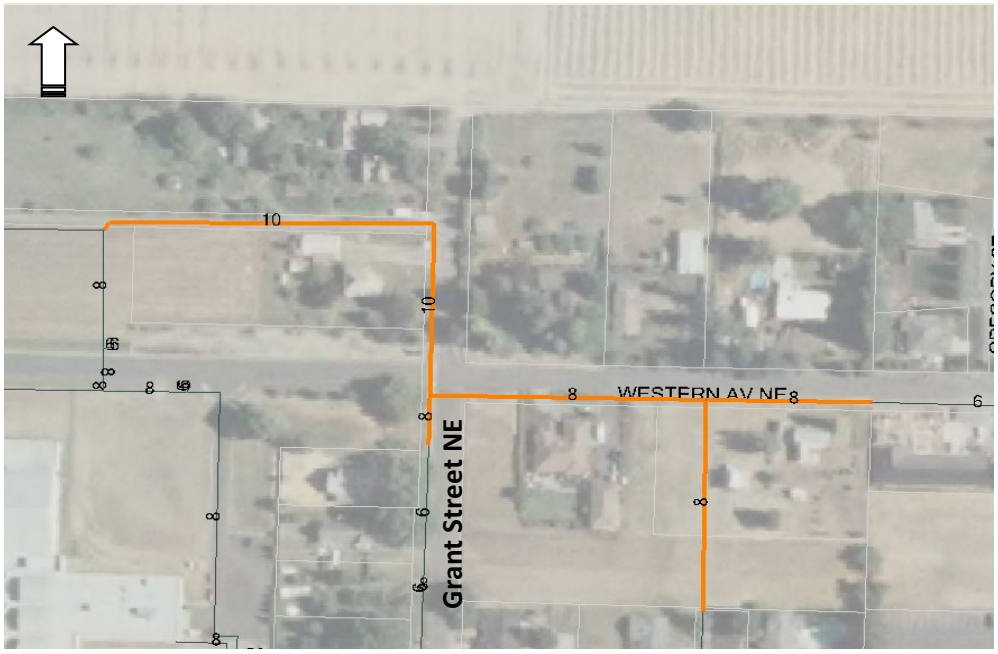
Water Master Plan Project:
Western Avenue Improvements

Project Identifier:
1I (new lines)

Objective:
Provides secondary supply source to high school. Also Improves fire flow, transmission, and hydrant coverage to surrounding areas.

Potential Issues:
Easements
Water service during construction

Project Location: Western Ave & Grant St



General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 10" pipe (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$90	602	$54,180
Install 8" pipe (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$50	950	$47,500
Traffic Control	LF	$5	1,552	$7,760
5ft width Pavement Repair (4-inches thick)	LF	$50	1,612	$80,600
Reconnect Services	EA	$1,700	5	$8,500
Rock Excavation (bedrock or boulders)	CY	185	20	$3,700
Landscape	LS	7,500	1	$7,500
Subtotal				*$209,740*
Mobilization	%	6%		$12,584
Total Construction Costs				*$222,324*
Contingency as % of total construction costs	%	25%		$56,000
Easements	LS	$7,000		$7,000
Engineering and CMS as % of total construction costs	%			$0
Total Project Cost			$286,000	

Water Master Plan Project:
Breyonna Way Loop

Project Identifier:
1J (new line)

Objective:
Closes an important loop in the WTP PRV Zone. Improves redundancy, fire flow, and ciruclation.

Potential Issues:
Easements, alignment

Project Location: Breyonna Way & Iowa St

General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" pipe (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$50	500	$25,000
Rock Excavation (bedrock or boulders)	CY	185	10	$1,850
Landscaping	LS	7,500	1	$7,500
Subtotal				*$34,350*
Mobilization	%	6%		$2,061
Total Construction Costs				*$36,411*
Contingency as % of total construction costs	%	25%		$9,000
Easements	LS	$5,000		$5,000
Engineering and CMS as % of total construction costs	%	20%		$7,282
Total Project Cost			$58,000	

Water Master Plan Project:
N. 3rd Street Improvements

Project Identifier:
1K (replacement)

Objective:
Improves fire flow, and hydrant coverage to commercially zoned area.

Potential Issues:

Project Location: N. 3rd St btwn High St and B St

General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" pipe (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	793	$63,440
Traffic Control	LF	$5	793	$3,965
5ft width Pavement Repair (4-inches thick)	LF	$50	889	$44,450
Install new hydrants on existing lines	EA	$4,000	3	$12,000
Reconnect Services	EA	$1,700	8	$13,600
Rock Excavation (bedrock or boulders)	CY	185	20	$3,700
Landscaping	LS	4,000	1	$4,000
Subtotal				*$145,155*
Mobilization	%	6%		$8,709
Total Construction Costs				*$153,864*
Contingency as % of total construction costs	%	25%		$38,000
Engineering and CMS as % of total construction costs	%	20%		$30,773
Total Project Cost				$223,000

Water Master Plan Project:
Washington and Lincoln Street Improvements

Project Identifier:
1L (new lines)

Objective:
Improves fire flow, and hydrant coverage to surrounding areas. Remove problematic lines and distribution lines in alleys.

Potential Issues:
Reconnection of services

Project Location: Washington & Lincoln Streets btwn Mill and N. 2nd Streets

General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" pipe (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	1,310	$104,800
Traffic Control	LF	$5	1,310	$6,550
5ft width Pavement Repair (4-inches thick)	LF	$50	1,710	$85,500
Directional bore for existing services-includes connnection	EA	$1,500	40	$60,000
New meters	EA	$1,000	40	$40,000
Rock Excavation (bedrock or boulders)	CY	185	10	$1,850
Landscaping	LS	5,000	1	$5,000
Subtotal				*$303,700*
Mobilization	%	6%		$18,222
Total Construction Costs				*$321,922*
Contingency as % of total construction costs	%	25%		$80,000
Engineering and CMS as % of total construction costs	%	20%		$64,384
Total Project Cost				$467,000

Water Master Plan Project:
Kent Street and Sweden Circle

Project Identifier:
1M (new line)

Objective:
Improves fire flow, and system looping for Water Treatment Plant PRV Zone.

Potential Issues:
Lines not in right of way - may consider alternate route.

Project Location: Kent St & Sweden Circle

General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" pipe (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	170	$13,600
5ft width Pavement Repair (4-inches thick)	LF	$50	1	$50
Landscaping	LS	$3,000	1	$3,000
Rock Excavation (bedrock or boulders)	CY	185	10	$1,850
Subtotal				*$18,500*
Mobilization	%	6%		$1,110
Total Construction Costs				*$19,610*
Contingency as % of total construction costs	%	25%		$5,000
Easements	LS	$6,000		$6,000
Engineering and CMS as % of total construction costs	%	20%		$3,922
Total Project Cost			$35,000	

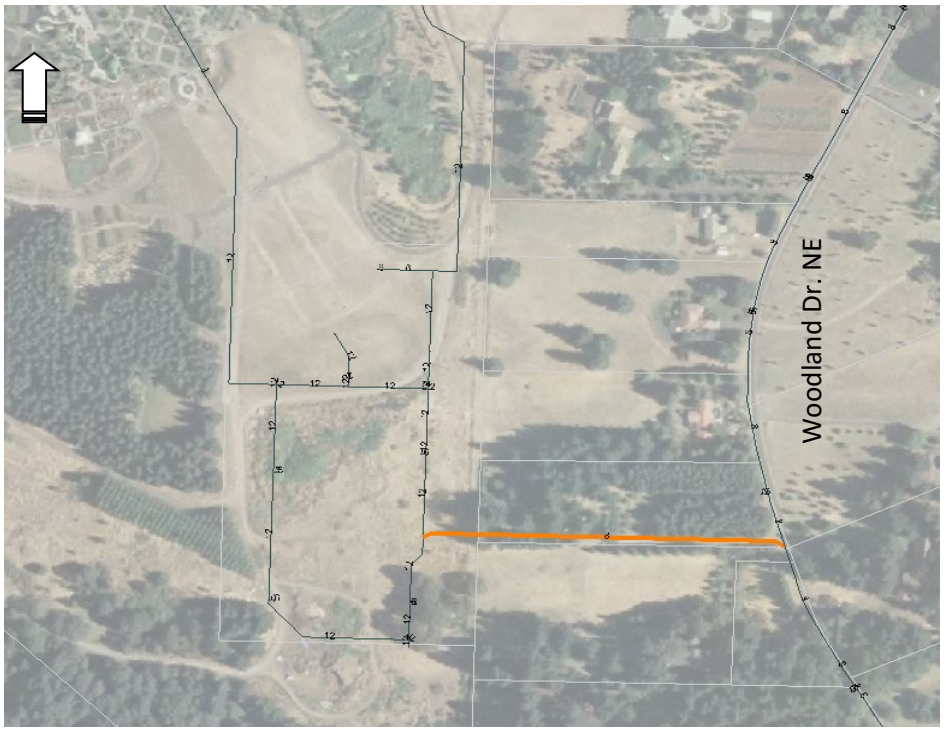
Water Master Plan Project:
Woodland Drive NE and Oregon Garden and Relocate backflow prevention on Oregon Garden

Project Identifier:
1N (new line)

Objective:
Eliminates vulnerability of single line feed to Oregon Gardens' system. Resolves fire flow deficiency. Relocation of backflow prevention on the Oregon Garden line addresses the low fire flow concerns on the Garden Site and allows benefit of looping.

Potential Issues:
Easement and final alignment of water line will be required.

Project Location: Woodland Dr and Oregon Garden



General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" pipe (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	770	$61,600
New Backflow Prevention units	EA	$10,000	3	$30,000
Surface Repair - Pavement	LS	$4,000	1	$4,000
Clearing	LF	$25	700	$17,500
Landscaping	LS	$1	3,000	$3,000
Simple Gravel Road	LF	$60	800	$48,000
Rock Excavation (bedrock or boulders)	CY	185	50	$9,250
Subtotal				*$173,350*
Mobilization	%	6%		$10,401
Total Construction Costs				*$183,751*
Contingency as % of total construction costs	%	25%		$46,000
Easements	LS	$20,000		$20,000
Engineering and CMS as % of total construction costs	%	20%		$36,750
Total Project Cost				$287,000

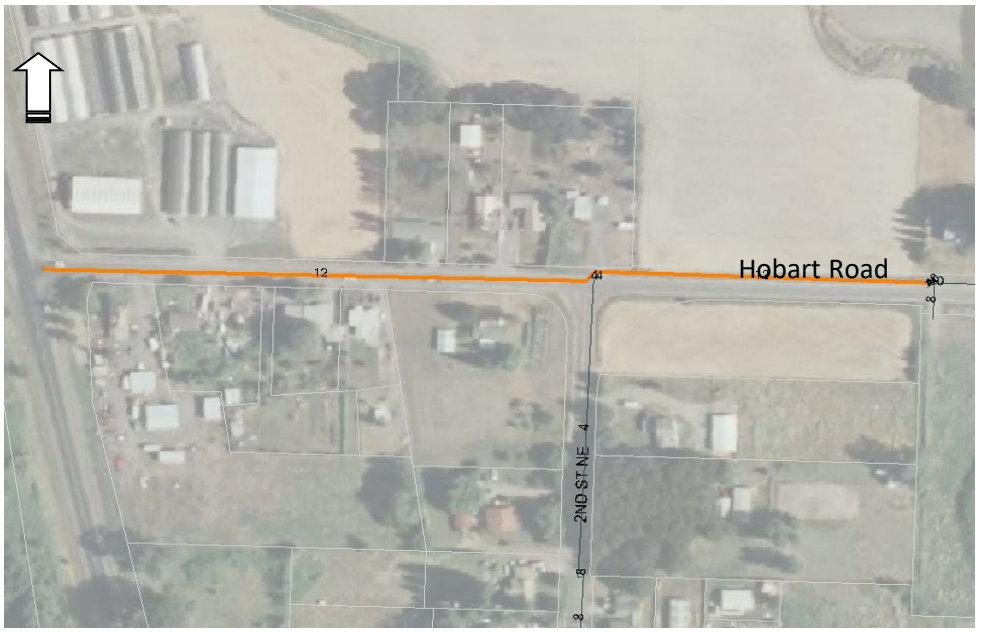
Water Master Plan Project:
Hobart Road Improvements

Project Identifier:
1O (replacement)

Objective**:**
Provides for future transmission corridor and improves service and fire flow to existing users. Also replaces old asbestos cement line on Hobart Rd. The section east of 2nd was installed in 2013.

Potential Issues:

Project Location: Hobart Rd & N. 2nd St



General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 12" pipe (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$100	900	$90,000
5ft width Pavement Repair (4-inches thick)	LF	$50	984	$49,200
Traffic Control	LF	$5	900	$4,500
Reconnect Services	EA	1,700	7	$11,900
Landscaping	LS	2,500	1	$2,500
Rock Excavation (bedrock or boulders)	CY	185	10	$1,850
Subtotal				*$159,950*
Mobilization	%	6%		$9,597
Total Construction Costs				*$169,547*
Contingency as % of total construction costs	%	25%		$42,000
Engineering and CMS as % of total construction costs	%	20%		$33,909
Total Project Cost			$246,000	

Water Master Plan Project:
New High Level Pumphouse

Project Identifier:
1P (replacement)

Objective**:**
Save energy costs by installing a high efficiency booster.
Expand pumping capacity, upgrade old equipment and facility.
Provide backup power.

Potential Issues:
Coordinate funding with Oregon Energy Trust
Site space restrictions

Project Location: Water Treatment Plant

General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
New 75HP Pump	EA	$30,000	1	$30,000
Install two 125 hp pumps	LS	$50,000	2	$100,000
Install medium pressure jokey pump	LS	$20,000	1	$20,000
6" pressure reducing valve	EA	$6,000	2	$12,000
3" pressure reducing valve	EA	$5,000	1	$5,000
New Building	LS	$200,000	1	$200,000
Mechanical - valves, meters	LS	$12,000	1	$12,000
Electrical	LS	$75,000	1	$75,000
Instrumentation	LS	$32,000	1	$32,000
Standby power	EA	$85,000	1	$85,000
Subtotal				*$571,000*
Mobilization	%	6%		$34,260
Total Construction Costs				*$605,260*
Contingency as % of total construction costs	%	25%		$151,000
SCADA Integration and Controls	LS	20,000	1	$20,000
Engineering and CMS as % of total construction costs	%	20%		$121,052
Total Project Cost				$898,000

2A - Abiqua Intake Line - Replace 1,110' of 14" Transmission Line

Item	Unit	Unit Price	Estimated Quantity	Item Cost
20" DI Pipe	LF	$260	1,500	$390,000
Site Restoration	LS	$25,000	1	$25,000
			Construction Subtotal:	**$415,000**
Contractor Profit and Overhead	%	10%		$41,500.00
Mobilization - Percent of Item Cost Sum	%	6%		$24,900.00
Contingency - % of construction costs	%	30%		$124,500
Engineering and CMS - % of construction costs	%	25%		$103,750.00
			Project Total:	**$709,650**

Water Master Plan Project:
Cowing to Smith Improvements

Project Identifier:
2B (replacment)

Objective**:**
Improves fire flow and hydrant coverage. and replaces older, undersized lines.

Potential Issues:
Providing temporary water service during construction.

Project Location: Cowing to Smith Street

General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" pipe (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	2,200	$176,000
5ft width Pavement Repair (4-inches thick)	LF	$50	2,600	$130,000
Traffic Control	LF	$5	2,200	$11,000
Reconnect water services	EA	$1,700	30	$51,000
Landscaping	LS	$12,500	1	$12,500
Rock Excavation (bedrock or boulders)	CY	185	10	$1,850
Subtotal				*$382,350*
Mobilization	%	6%		$22,941
Total Construction Costs				*$405,291*
Contingency as % of total construction costs	%	25%		$101,000
Engineering and CMS as % of total construction costs	%	20%		$81,058
Total Project Cost			$588,000	

The cost estimate herein is based on our perception of current conditions at the project location. This estimate reflects our opinion of probable costs at this time and is subject to change as the project design matures. The City has no control over variances in the cost of labor, materials, equipment, services provided by others, contractor's methods of determining prices, competitive bidding or market conditions, practices or bidding strategies. The City cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the cost presented herein.

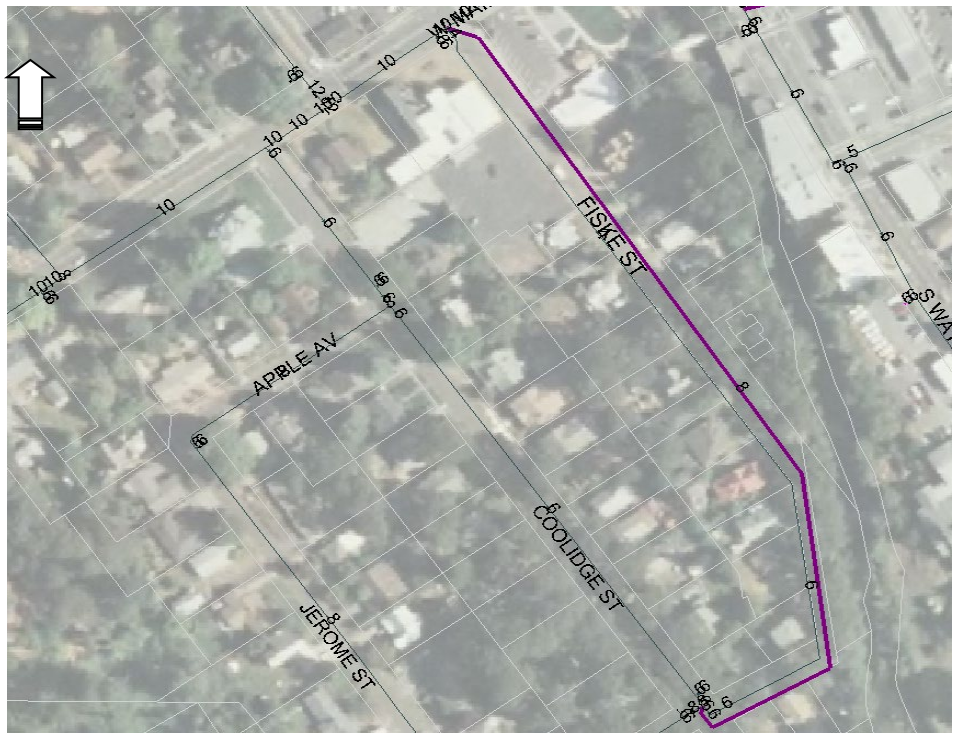
Water Master Plan Project:
Fiske Street Improvements

Project Identifier:
2C (replacement)

Objective:
Improves fire flow and hydrant coverage and replaces older undersized lines

Potential Issues:
Providing temporary water service during construction.

Project Location: Fiske Street



General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" pipe (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	1,200	$96,000
5ft width Pavement Repair (4-inches thick)	LF	$50	1,300	$65,000
Traffic Control	LF	5	1,200	$6,000
Reconnect water services	EA	$1,700	8	$13,600
Landscaping	LS	$7,500	1	$7,500
Rock Excavation (bedrock or boulders)	CY	185	10	$1,850
Subtotal				*$189,950*
Mobilization	%	6%		$11,397
Total Construction Costs				*$201,347*
Contingency as % of total construction costs	%	25%		$50,000
Engineering and CMS as % of total construction costs	%	20%		$40,269
Total Project Cost			$292,000	

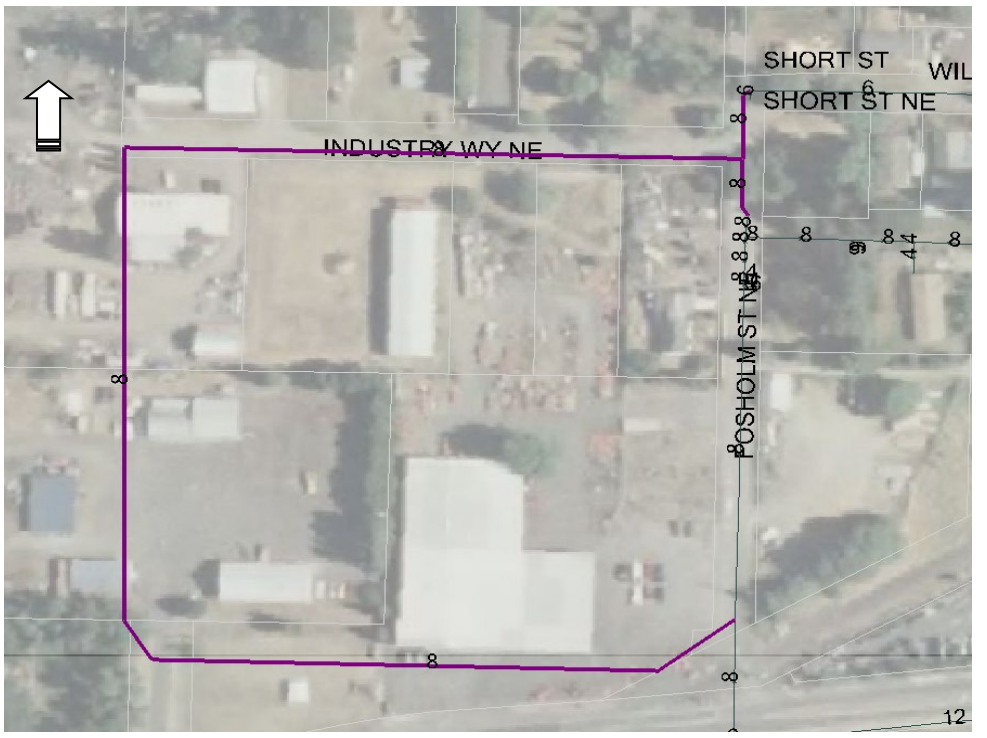
Water Master Plan Project:
Industry Way Improvements

Project Identifier:
2D (new line)

Objective**:**
Improves fire flow, pressure, and circulation at city shop.

Potential Issues:
Easements and alignment to be finalized.

Project Location: Fosholm and Industry Way



General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" pipe (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	2,000	$160,000
5ft width Pavement Repair (4-inches thick)	LF	$50	1,300	$65,000
Traffic Control	LF	8	700	$5,600
Rock Excavation (bedrock or boulders)	CY	185	10	$1,850
Subtotal				*$232,450*
Mobilization	%	6%		$13,947
Total Construction Costs				*$246,397*
Contingency as % of total construction costs	%	25%		$62,000
Engineering and CMS as % of total construction costs	%	20%		$49,279
Total Project Cost				$358,000

Water Master Plan Project:
Pioneer and Evans Valley Improvements

Project Identifier:
2E (new line)

Objective**:**
Improves fire flow, pressure, circulation and future transmission. Eliminates vulnerability of single feed to WTP PRV Zone.

Potential Issues:
Coordinate improvement with Pioneer Rd. alignment and future development.

Project Location: Pioneer and Evans Valley

General Line Items - Upsize Costs Only	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" pipe (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	2,700	$216,000
Install 12" pipe (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$100	560	$56,000
Surface Repair - Pavement	LF	$100	2,260	$226,000
Traffic Control	LF	$8	2,260	$18,080
PRV connection from WTP Booster Zone to WTP PRV Zone at Pioneer and Crestview	EA	50,000	1	$50,000
Rock Excavation (bedrock or boulders)	CY	185	100	$18,500
Subtotal				*$584,580*
Mobilization	%	6%		$35,075
Total Construction Costs				*$619,655*
Contingency as % of total construction costs	%	25%		$155,000
Engineering and CMS as % of total construction costs	%	20%		$123,931
Total Project Cost			$899,000	

Water Master Plan Project:
Oak Street Improvements

Project Identifier:
2F (new line)

Objective**:**
Improves transmission in the Clearwell Zone. Improves pressures for connections in the WTP PRV Zone on Oak Street. Improves looping, circulation, and fire flow in both zones.

Connectivity Information:
Existing 6-8" lines on Oak to be converted from the Clearwell Zone (low zone) to WTP PRV Zone (medium zone). A new 12" transmission line to be installed and serve the Clearwell Zone. Install new 8" connection btwn WTP PRV Zone lines at intersection of Silver Cliff BV, Oak St, and Iowa St. Install new 8" connection btwn Clearwell Zone lines at same intersection.

Project Location: Oak St btwn Norway St and Monitor Rd

General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" connections (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$75	100	$7,500
Install 12" transmission (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$100	2,000	$200,000
5ft width Pavement Repair (4-inches thick)	LF	$50	2,100	$105,000
Rock Excavation (bedrock or boulders)	CY	185	10	$1,850
Traffic Control	LS	25,000	1	$25,000
Various connections and Pressure zone modifications	LS	20,000	1	$20,000
Subtotal				*$359,350*
Mobilization	%	6%		$21,561
Total Construction Costs				*$380,911*
Contingency as % of total construction costs	%	25%		$95,000
Engineering and CMS as % of total construction costs	%	20%		$76,182
Total Project Cost			$553,000	

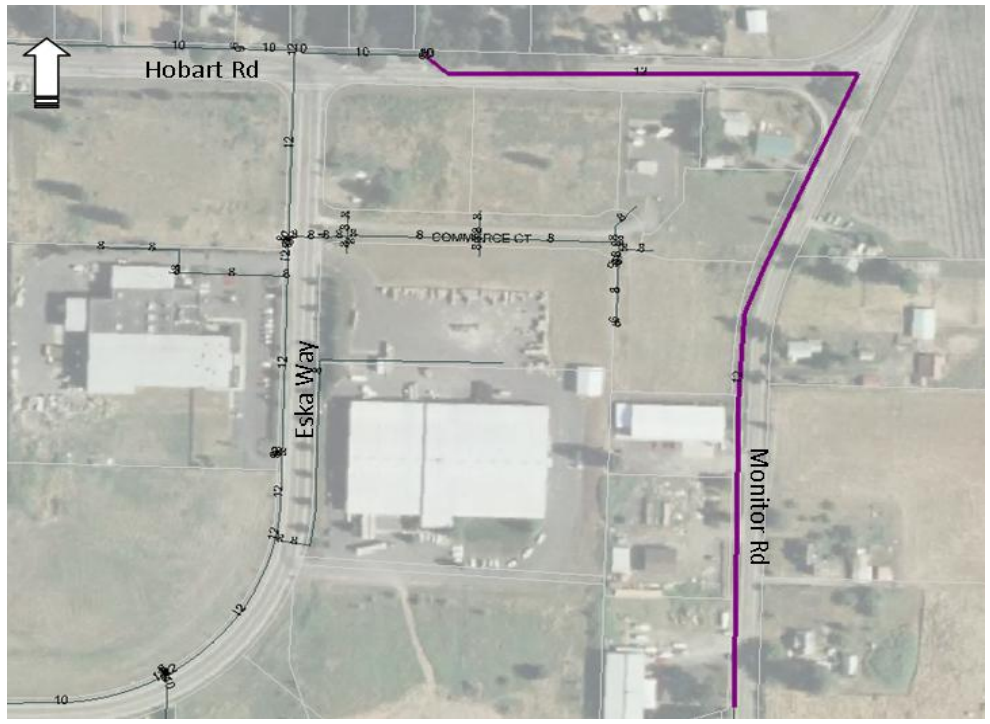
Water Master Plan Project:
Industrial Area Improvements

Project Identifier:
2G (new line)

Objective**:**
Improve transmission and fire flow in the industrial land use area. Allows flexibility for future industrial development.

Project Issues:
Consider coordinating improvement with new industrial developments in this area.

Project Location: Hobart and Monitor Road



General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 12" transmission (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$100	2,000	$200,000
5ft width Pavement Repair (4-inches thick)	LF	$50	2,000	$100,000
Traffic Control	LF	5	2,000	$10,000
Rock Excavation (bedrock or boulders)	CY	185	10	$1,850
Subtotal				*$311,850*
Mobilization	%	6%		$18,711
Total Construction Costs				*$330,561*
Contingency as % of total construction costs	%	25%		$83,000
Engineering and CMS as % of total construction costs	%	20%		$66,112
Total Project Cost	$480,000			

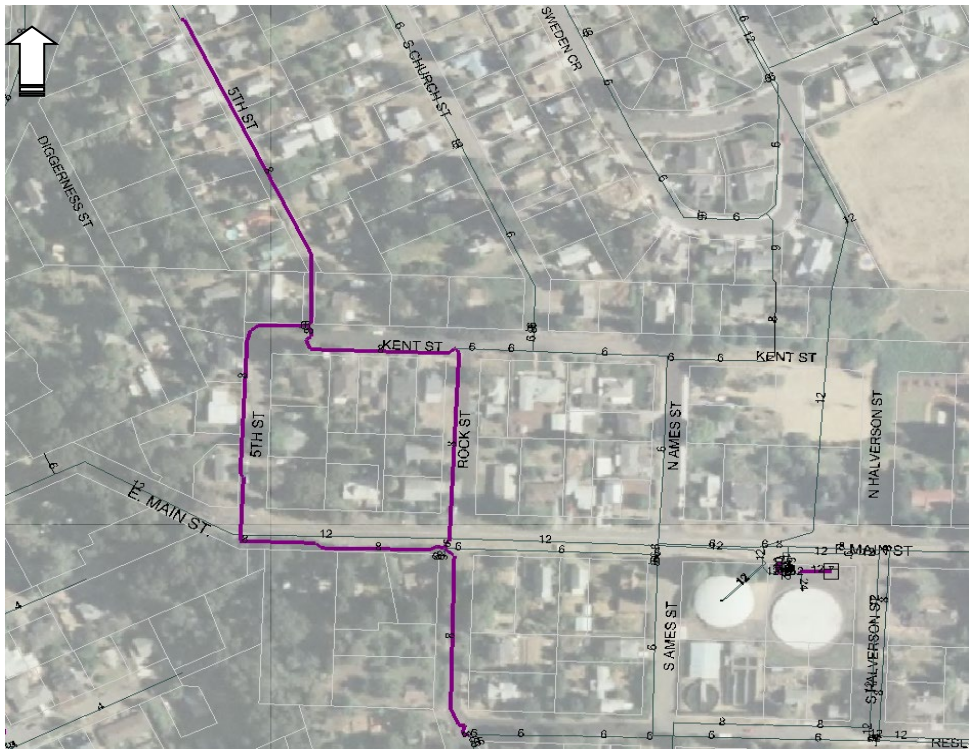
Water Master Plan Project:
Main and 5th Improvements

Project Identifier:
2H (replacement)

Objective:
Address recurring complaints regarding pressures in this area. Improve fire flow, hydrant coverage, and circulation. Replace small, undersized pipes.

Project Issues:

Project Location: E. Main St and 5th St



General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	2,550	$204,000
5ft width Pavement Repair (4-inches thick)	LF	$50	2,750	$137,500
Traffic Control	LF	$5	2,550	$12,750
Landscaping	LS	$10,000	1	$10,000
Rock Excavation (bedrock or boulders)	CY	185	100	$18,500
Reconnect services	EA	$1,700	20	$34,000
Subtotal				*$416,750*
Mobilization	%	6%		$25,005
Total Construction Costs				*$441,755*
Contingency as % of total construction costs	%	25%		$110,000
Engineering and CMS as % of total construction costs	%	20%		$88,351
Total Project Cost			$641,000	

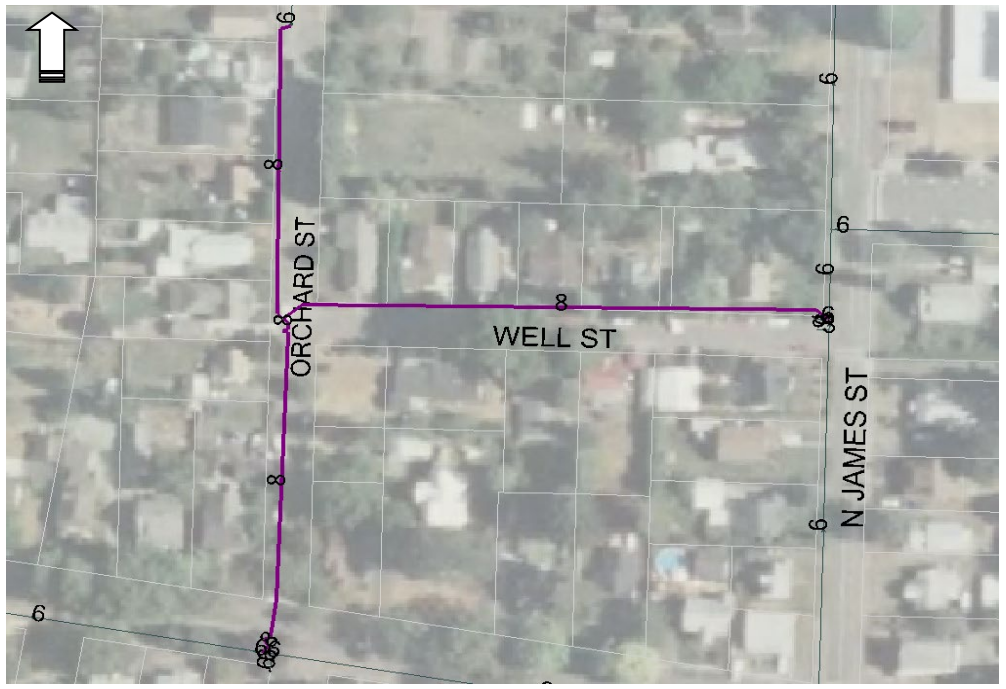
Water Master Plan Project:
Well and Orchard Improvements

Project Identifier:
2I (replacement)

Objective**:**
Improve fire flow and hydrant coverage.

Project Issues:

Project Location: Well St and Orchard St



General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	1,000	$80,000
5ft width Pavement Repair (4-inches thick)	LF	$50	1,240	$62,000
Traffic Control	LF	$5	1,000	$5,000
Rock Excavation (bedrock or boulders)	CY	185	10	$1,850
Landscape	LS	3,000	1	$3,000
Reconnect existing services	EA	$1,700	20	$34,000
Subtotal				*$185,850*
Mobilization	%	6%		$11,151
Total Construction Costs				*$197,001*
Contingency as % of total construction costs	%	25%		$49,000
Engineering and CMS as % of total construction costs	%	20%		$39,400
Total Project Cost			$286,000	

Water Master Plan Project:
Future Park Service

Project Identifier:
2J (new line)

Objective**:**
Extend service to future park. Because the future piping requirements for the park are presently unkown, the figure and pipe lengths provided here are for illustration only.

Project Issues:
Tree removal, replacement and other surface repair is assumed to be part of future park work. Coordinate looped service to park area with the pressure zone boundary on Hawk Drive.

Project Location: Hawk Dr and Centennial Dr

General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	250	$20,000
Rock Excavation (bedrock or boulders)	CY	185	10	$1,850
Subtotal				*$21,850*
Mobilization	%	6%		$1,311
Total Construction Costs				*$23,161*
Contingency as % of total construction costs	%	25%		$6,000
Engineering and CMS as % of total construction costs	%	20%		$4,632
Total Project Cost				$34,000

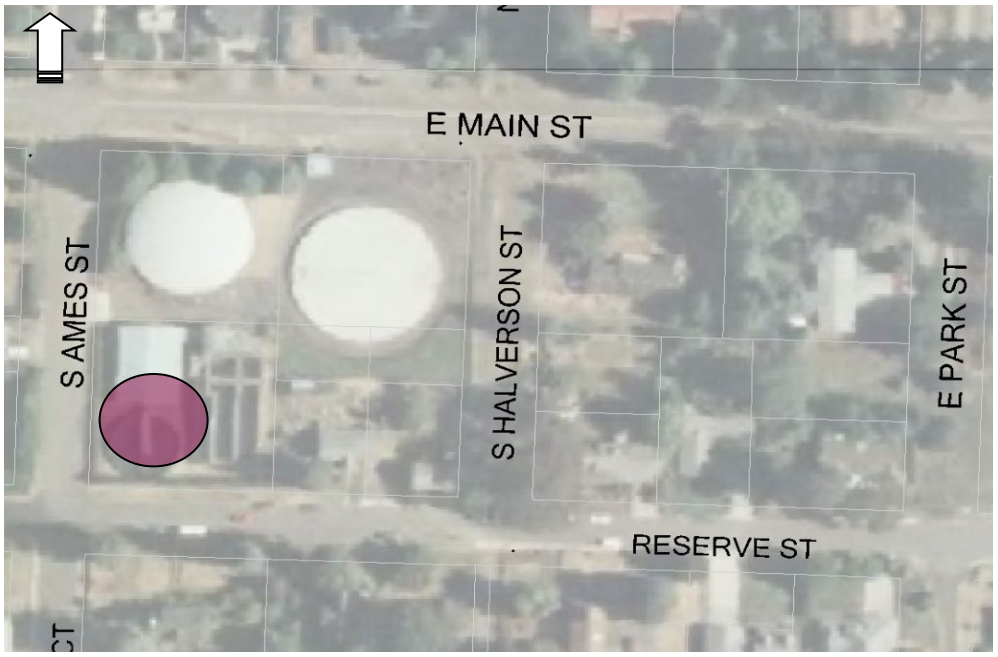
Water Master Plan Project:
Future 1 MG Tank

Project Identifier:
2K (new facilities)

Objective:
Provide for future storage needs

Project Issues:
Placement based on future growth within the City. Acquisition of additional space adjacent to WTP site may be needed. Tank should match levels of existing storage at property. Share overflow and drainage system with existing tanks.

Project Location: Water Treatment Plant or Edison Road



General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Fence, security, and lighting	LS	$50,000	1	$50,000
Yard piping and connection to existing system	LS	$120,000	1	$120,000
Earthwork	LS	$80,000	1	$80,000
1 MG Prestressed Concrete Tank with aluminum dome	LS	$800,000	1	$800,000
Subtotal				*$1,050,000*
Mobilization	%	6%		$63,000
Total Construction Costs				*$1,113,000*
Contingency as % of total construction costs	%	25%		$278,000
Land Purchase	LS	0		$0
SCADA Integration and Controls	LS	20,000	1	$20,000
Engineering and CMS as % of total construction costs	%	20%		$222,600
Total Project Cost				$1,634,000

Water Master Plan Project:
Lewis Street Improvements

Project Identifier:
2L (replacement)

Objective:
Eliminate undersized tuberculated lines, improve water quality and fire flow.

Project Issues:

Project Location: S. 3rd Sreet and Lewis Street

General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	1,400	$112,000
5ft width Pavement Repair (4-inches thick)	LF	$50	1,700	$85,000
Traffic Control	LF	5	1,400	$7,000
Rock Excavation (bedrock or boulders)	CY	185	10	$1,850
Landscape	LS	5,000	1	$5,000
Reconnect existing services	EA	1,700	25	$42,500
Subtotal				*$253,350*
Mobilization	%	6%		$15,201
Total Construction Costs				*$268,551*
Contingency as % of total construction costs	%	25%		$67,000
Engineering and CMS as % of total construction costs	%	20%		$53,710
Total Project Cost			$390,000	

Water Master Plan Project:
Water Street Improvements

Project Identifier:
2M (replacement)

Objective**:**
Improve transmission, fire flow, and hydrant coverage. Replace old, undersize, steel pipes.

Project Issues:
Water Street is a State Highway and may have additional requirements. With city inspection, the additional cost of control density backfill may be avoidable. Project should be coordinated with other street improvements to reduce project costs where possible.

Project Location: Water St btwn Ike Mooney and Pioneer Rd

General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 10" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$90	2,550	$229,500
10 ft width pavement Repair (6-inches thick)	LF	$100	3,050	$305,000
Rock Excavation (bedrock or boulders)	CY	185	20	$3,700
Additional for control density backfill	LF	$40	2,550	$102,000
Traffic Control	LF	$5	2,550	$12,750
Landscape	LS	25,000	1	$25,000
Reconnect services	EA	$1,700	26	$44,200
Subtotal				*$722,150*
Mobilization	%	6%		$43,329
Total Construction Costs				*$765,479*
Contingency as % of total construction costs	%	25%		$191,000
Engineering and CMS as % of total construction costs	%	20%		$153,096
Total Project Cost	$1,110,000			

Water Master Plan Project:
Pine Street Improvements

Project Identifier:
2N (replacement)

Objective:
Improves fire flow, transmission, and hydrant coverage to surrounding areas.

Potential Issues:

Project Location: Pine & James Street

General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 10" pipe (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$90	600	$54,000
Traffic Control	LF	$5	600	$3,000
5ft width Pavement Repair (4-inches thick)	LF	$50	700	$35,000
Reconnect Services	EA	$1,700	9	$15,300
Rock Excavation (bedrock or boulders)	CY	185	10	$1,850
Landscaping	LS	2	3,000	$6,000
Subtotal				*$115,150*
Mobilization	%	6%		$6,909
Total Construction Costs				*$122,059*
Contingency as % of total construction costs	%	25%		$31,000
Engineering and CMS as % of total construction costs	%	20%		$24,412
Total Project Cost			$178,000	

Water Master Plan Project:
Keene and Ash Improvements

Project Identifier:
2O (replacement)

Objective**:**
Improves fire flow, transmission, and hydrant coverage to surrounding areas. Eliminates undersized and problematic lines from the system.

Potential Issues:

Project Location: Keene & Ash Street

General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" pipe (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	1,900	$152,000
Traffic Control	LF	$5	1,900	$9,500
5ft width Pavement Repair (4-inches thick)	LF	$50	2,200	$110,000
Reconnect Services	EA	$1,700	25	$42,500
Landscaping	LS	$10,000	1	$10,000
Rock Excavation (bedrock or boulders)	CY	185	30	$5,550
Subtotal				*$329,550*
Mobilization	%	6%		$19,773
Total Construction Costs				*$349,323*
Contingency as % of total construction costs	%	25%		$87,000
Engineering and CMS as % of total construction costs	%	20%		$69,865
Total Project Cost			$507,000	

Water Master Plan Project:
High Level Tank Improvements

Project Identifier:
2P (new faciliites/maintenance of existing)

Objective:
Addresss issues at the tank site identified in October 2010 Keller Associates Technical Memorandum: Silverton Water Distribution System Inventory and Evaluation (p.2)

Potential Issues:
Tank may need to be out of service or otherwise isolated for some improvments.

Project Location: High Level Tank

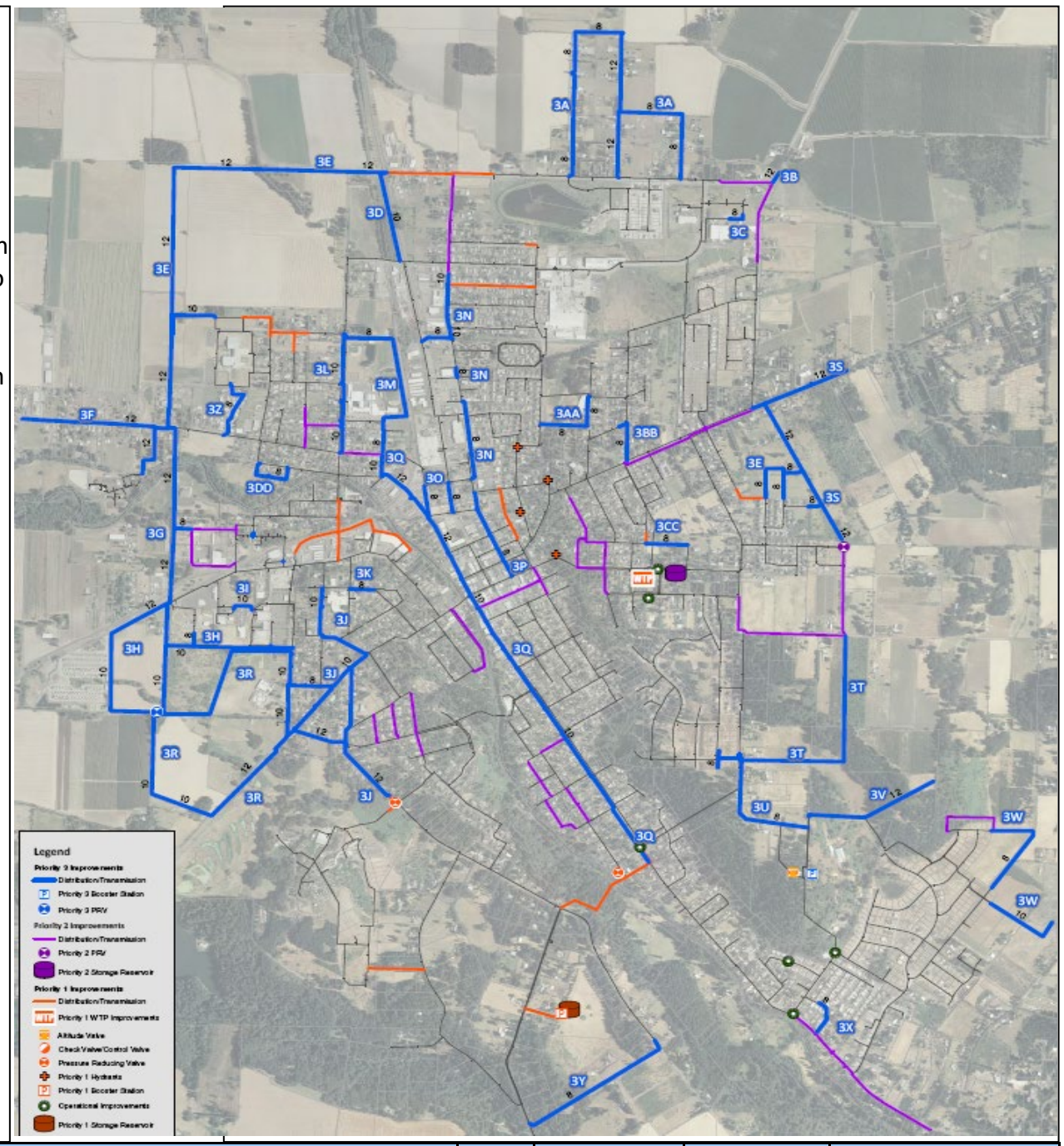
General Line Items	Unit	Unit Price	Estimated Quantity	2010 Cost
Recoating of tank exterior	LS	$130,000	1	$130,000
Replace ladder system	LS	$50,000	1	$50,000
Security Improvements	LS	$45,000	1	$45,000
Replace manway covers	LS	$15,000	1	$15,000
Replace venting	LS	$8,000	1	$8,000
Subtotal				*$248,000*
Mobilization	%	6%		$14,880
Total Construction Costs				*$262,880*
Contingency as % of total construction costs	%	10%		$26,000
Engineering and CMS as % of total construction costs	%	15%		$39,432
Total Project Cost				$329,000

Water Master Plan Project:
Priority 3 Improvements

Objective**:**
Priority 3 improvements are intended to provide an outline for future distribution alignments, transmission corridors, and lower priority improvements targeted to alleviate anticipated bottlenecks and maintenance issues. Projects address future transmission and fire protection needs, including enhanced fire protection in existing commercially zoned areas.

Improvements are anticipated to be completed by 2055. Many of these projects should be coordinated with development and roadway projects to minimize costs.

For projects assumed to be primarily development driven and that are intended to directly service adjacent developable lands, only project upsize costs are calculated. Upsize costs refer to the cost to increase the pipe from the minimum 8-inch pipe to specific size required for other planning needs.



3A - Setness St, Quarry Ave, and Lanham Lane - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	4,600	$368,000
Install 12" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$100	2,150	$215,000
5ft width Pavement Repair (4-inches thick)	LF	$50	5,250	$262,500
Traffic Control	LF	$5	5,250	$26,250
Subtotal				*$871,750*
Mobilization	%	6%		$52,305
Total Construction Costs				*$924,055*
Contingency as % of total construction costs	%	35%		$323,000
Engineering and CMS as % of total construction costs	%	20%		$184,811
Total Project Cost	$1,432,000			

3B - Meridian Rd NE - Upsize Only	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 12" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$20	200	$4,000
Subtotal				*$4,000*
Mobilization	%	0%		$0
Total Construction Costs				*$4,000*
Contingency as % of total construction costs	%	0%		$0
Engineering and CMS as % of total construction costs	%	0%		$0
Total Project Cost	$4,000			

3C - Commerce Court and Industry Way - Upsize Only	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	300	$24,000
Surface Repair	LF	$50	100	$5,000
Subtotal				*$29,000*
Mobilization	%	6%		$1,740
Total Construction Costs				*$30,740*
Contingency as % of total construction costs	%	35%		$11,000
Engineering and CMS as % of total construction costs	%	20%		$6,148
Total Project Cost	$48,000			

3D - N. 1st Street from Jefferson Road to Hobart Road - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 10" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$90	1,400	$126,000
5ft width Pavement Repair (4-inches thick)	LF	$50	1,400	$70,000
Traffic Control	LF	$5	1,400	$7,000
Subtotal				*$203,000*
Mobilization	%	6%		$12,180
Total Construction Costs				*$215,180*
Contingency as % of total construction costs	%	35%		$75,000
Engineering and CMS as % of total construction costs	%	20%		$43,036
Total Project Cost			$334,000	

3E - Northwest 12-inch Loop (Hobart Road to Pine Street) - Upsize Only	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 10" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$10	600	$6,000
Install 12" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$20	6,700	$134,000
Subtotal				*$140,000*
Mobilization	%	6%		$8,400
Total Construction Costs				*$148,400*
Contingency as % of total construction costs	%	0%		$0
Engineering and CMS as % of total construction costs	%	0%		$0
Total Project Cost			$149,000	

3F - Pine Street from April Ln to Airport Rd. - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 12" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$100	2,900	$290,000
5ft width Pavement Repair (4-inches thick)	LF	$50	2,900	$145,000
Traffic Control	LF	$5	2,900	$14,500
Subtotal				*$449,500*
Mobilization	%	6%		$26,970
Total Construction Costs				*$476,470*
Contingency as % of total construction costs	%	35%		$167,000
Engineering and CMS as % of total construction costs	%	20%		$95,294
Total Project Cost			$739,000	

3G - West 12" line from Pine and April Ln, south to Railway Avenue - Upsize Only	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings) - likely full cost	LF	$80	250	$20,000
Install 12" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$20	2,650	$53,000
Subtotal				*$73,000*
Mobilization	%	0%		$0
Total Construction Costs				*$73,000*
Contingency as % of total construction costs	%	0%		$0
Engineering and CMS as % of total construction costs	%	0%		$0
Total Project Cost			$73,000	

3H - Low Pressure Zone Loop from Westfield and Center westward and north to Railway Avenue - Upsize Only	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$0	550	$0
Install 10" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$10	4,200	$42,000
Install 12" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$20	950	$19,000
Subtotal				*$61,000*
Mobilization	%	0%		$0
Total Construction Costs				*$61,000*
Contingency as % of total construction costs	%	0%		$0
Engineering and CMS as % of total construction costs	%	0%		$0
Total Project Cost			$61,000	

3I - 10" Connection from Safeway to Fire Department - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 10" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$90	300	$27,000
5ft width Pavement Repair (4-inches thick)	LF	$50	300	$15,000
Subtotal				*$42,000*
Mobilization	%	6%		$2,520
Total Construction Costs				*$44,520*
Contingency as % of total construction costs	%	35%		$16,000
Engineering and CMS as % of total construction costs	%	20%		$8,904
Total Project Cost			$70,000	

3J - Transmission from New PRV to Anderson PRV Zone - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	1,800	$144,000
Install 10" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$90	4,200	$378,000
Install 12" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$100	2,200	$220,000
5ft width Pavement Repair (4-inches thick)	LF	$50	8,200	$410,000
Traffic Control	LF	$5	8,200	$41,000
Subtotal				*$1,193,000*
Mobilization	%	6%		$71,580
Total Construction Costs				*$1,264,580*
Contingency as % of total construction costs	%	35%		$443,000
Engineering and CMS as % of total construction costs	%	20%		$252,916
Total Project Cost			$1,961,000	

3K - Cherry Street From Phelps to Welch - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	350	$28,000
5ft width Pavement Repair (4-inches thick)	LF	$50	350	$17,500
Traffic Control	LF	$5	350	$1,750
Subtotal				*$47,250*
Mobilization	%	6%		$2,835
Total Construction Costs				*$50,085*
Contingency as % of total construction costs	%	35%		$18,000
Engineering and CMS as % of total construction costs	%	20%		$10,017
Total Project Cost			$79,000	

3L - James St from Western to Pine - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 10" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$90	1,900	$171,000
5ft width Pavement Repair (4-inches thick)	LF	$50	1,900	$95,000
Traffic Control	LF	$5	1,900	$9,500
Subtotal				*$275,500*
Mobilization	%	6%		$16,530
Total Construction Costs				*$292,030*
Contingency as % of total construction costs	%	35%		$102,000
Engineering and CMS as % of total construction costs	%	20%		$58,406
Total Project Cost			$453,000	

3M - Loop around old high school site - Upsize Only	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$0	2,200	$0
Subtotal				*$0*
Mobilization	%	5%		$0
Total Construction Costs				*$0*
Contingency as % of total construction costs	%	0%		$0
Engineering and CMS as % of total construction costs	%	0%		$0
Total Project Cost			$0	

3N - N. 2nd from C Street to TJ Lane - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	1,800	$144,000
Install 10" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$90	1,000	$90,000
5ft width Pavement Repair (4-inches thick)	LF	$50	2,800	$140,000
Traffic Control	LF	$5	2,800	$14,000
Subtotal				*$388,000*
Mobilization	%	6%		$23,280
Total Construction Costs				*$411,280*
Contingency as % of total construction costs	%	35%		$144,000
Engineering and CMS as % of total construction costs	%	20%		$82,256
Total Project Cost			$638,000	

3O - N. 1st from A to C and Front St from A to C - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	924	$73,920
5ft width Pavement Repair (4-inches thick)	LF	$50	924	$46,200
Traffic Control	LF	$5	924	$4,620
Subtotal				*$124,740*
Mobilization	%	6%		$7,484
Total Construction Costs				*$132,224*
Contingency as % of total construction costs	%	35%		$46,000
Engineering and CMS as % of total construction costs	%	20%		$26,445
Total Project Cost			$205,000	

3P - N. 2nd from Main to B St - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	1,400	$112,000
5ft width Pavement Repair (4-inches thick)	LF	$50	1,400	$70,000
Traffic Control	LF	$5	1,400	$7,000
Subtotal				*$189,000*
Mobilization	%	6%		$11,340
Total Construction Costs				*$200,340*
Contingency as % of total construction costs	%	35%		$70,000
Engineering and CMS as % of total construction costs	%	20%		$40,068
Total Project Cost			$311,000	

3Q - Water St from Peach to Brown St, then on Brown from N Webb to Schlador - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	500	$40,000
Install 10" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$90	5,100	$459,000
Install 12" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$100	2,300	$230,000
5ft width Pavement Repair (4-inches thick)	LF	$50	7,900	$395,000
Traffic Control	LF	$5	7,900	$39,500
Subtotal				*$1,163,500*
Mobilization	%	6%		$69,810
Total Construction Costs				*$1,233,310*
Contingency as % of total construction costs	%	35%		$432,000
Engineering and CMS as % of total construction costs	%	20%		$246,662
Total Project Cost			$1,912,000	

3R - Anderson PRV Zone Loop from Westfield and Center westward and northeast to Westfield and Main - Upsize Only	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 10" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$10	4,500	$45,000
Install 12" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$20	1,600	$32,000
Subtotal				*$77,000*
Mobilization	%	0%		$0
Total Construction Costs				*$77,000*
Contingency as % of total construction costs	%	0%		$0
Engineering and CMS as % of total construction costs	%	0%		$0
Total Project Cost			$77,000	

3S - Future Pioneer Rd Alignment from Crestview Dr to Oak St - Upsize Only	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$0	500	$0
Install 12" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$20	3,500	$70,000
Subtotal				*$70,000*
Mobilization	%	0%		$0
Total Construction Costs				*$70,000*
Contingency as % of total construction costs	%	0%		$0
Engineering and CMS as % of total construction costs	%	0%		$0
Total Project Cost			$70,000	

3T - Future Pioneer Rd Alignment from Skookum Dr and Eastview Lane to Evans Valley Rd - Upsize Only	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 10" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$10	1,400	$14,000
Install 12" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$20	2,000	$40,000
Subtotal				*$54,000*
Mobilization	%	0%		$0
Total Construction Costs				*$54,000*
Contingency as % of total construction costs	%	0%		$0
Engineering and CMS as % of total construction costs	%	0%		$0
Total Project Cost			$54,000	

3U - Eastview from Tillicum to Storage Reservoir - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	1,800	$144,000
5ft width Pavement Repair (4-inches thick)	LF	$50	1,800	$90,000
Traffic Control	LF	$5	1,800	$9,000
Subtotal				*$243,000*
Mobilization	%	6%		$14,580
Total Construction Costs				*$257,580*
Contingency as % of total construction costs	%	35%		$90,000
Engineering and CMS as % of total construction costs	%	20%		$51,516
Total Project Cost			$400,000	

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3V - Booster and eastward extension from Eastview Dr. to Future Eastview Booster Service Area - Upsize Only	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 12" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$20	2,000	$40,000
Booster Station - City's portion (Remainder to development)	LS	50,000	1	$50,000
Subtotal				*$90,000*
Mobilization	%	0%		$0
Total Construction Costs				*$90,000*
Contingency as % of total construction costs	%	0%		$0
Engineering and CMS as % of total construction costs	%	0%		$0
Total Project Cost			$90,000	

3W - Hawk Dr and Ike Mooney Rd - Upsize Only	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$0	1,600	$0
Install 10" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$10	1,100	$11,000
Subtotal				*$11,000*
Mobilization	%	0%		$0
Total Construction Costs				*$11,000*
Contingency as % of total construction costs	%	0%		$0
Engineering and CMS as % of total construction costs	%	0%		$0
Total Project Cost			$11,000	

3X - Extension into Silverton Mobile Home Estates - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	1,500	$120,000
5ft width Pavement Repair (4-inches thick)	LF	$50	1,500	$75,000
Traffic Control	LF	$5	1,500	$7,500
Subtotal				*$202,500*
Mobilization	%	6%		$12,150
Total Construction Costs				*$214,650*
Contingency as % of total construction costs	%	35%		$75,000
Engineering and CMS as % of total construction costs	%	20%		$42,930
Total Project Cost			$333,000	

3Y - Sunset Lane from Victor Point to Edison - Upsize Only	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$0	2,300	$0
Subtotal				*$0*
Mobilization	%	0%		$0
Total Construction Costs				*$0*
Contingency as % of total construction costs	%	0%		$0
Engineering and CMS as % of total construction costs	%	0%		$0
Total Project Cost			$0	

3Z - Connection from current High School site through mobile home park to Pine St - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	1,000	$80,000
5ft width Pavement Repair (4-inches thick)	LF	$50	1,000	$50,000
Traffic Control	LF	$5	1,000	$5,000
Subtotal				*$135,000*
Mobilization	%	6%		$8,100
Total Construction Costs				*$143,100*
Contingency as % of total construction costs	%	35%		$50,000
Engineering and CMS as % of total construction costs	%	20%		$28,620
Total Project Cost			$222,000	

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3AA - Robinson St and Church St - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	1,100	$88,000
5ft width Pavement Repair (4-inches thick)	LF	$50	1,100	$55,000
Traffic Control	LF	$5	1,100	$5,500
Subtotal				*$148,500*
Mobilization	%	6%		$8,910
Total Construction Costs				*$157,410*
Contingency as % of total construction costs	%	35%		$55,000
Engineering and CMS as % of total construction costs	%	20%		$31,482
Total Project Cost			$244,000	

3BB - Norway from Chadwick to Oak St - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	700	$56,000
5ft width Pavement Repair (4-inches thick)	LF	$50	700	$35,000
Traffic Control	LF	$5	700	$3,500
Subtotal				*$94,500*
Mobilization	%	6%		$5,670
Total Construction Costs				*$100,170*
Contingency as % of total construction costs	%	35%		$35,000
Engineering and CMS as % of total construction costs	%	20%		$20,034
Total Project Cost			$156,000	

3CC - Kent Street from East Park to N. Ames St - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	600	$48,000
5ft width Pavement Repair (4-inches thick)	LF	$50	600	$30,000
Traffic Control	LF	$5	600	$3,000
Subtotal				*$81,000*
Mobilization	%	6%		$4,860
Total Construction Costs				*$85,860*
Contingency as % of total construction costs	%	35%		$30,000
Engineering and CMS as % of total construction costs	%	20%		$17,172
Total Project Cost			$134,000	

3DD - Maple Street near Grant and N. Water - Full Cost	Unit	Unit Price	Estimated Quantity	2010 Cost
Install 8" lines (includes trenching, backfill, maint valves, hydrants, and fittings)	LF	$80	800	$64,000
5ft width Pavement Repair (4-inches thick)	LF	$50	800	$40,000
Traffic Control	LF	$5	800	$4,000
Subtotal				*$108,000*
Mobilization	%	6%		$6,480
Total Construction Costs				*$114,480*
Contingency as % of total construction costs	%	35%		$40,000
Engineering and CMS as % of total construction costs	%	20%		$22,896
Total Project Cost			$178,000	

The cost estimate herein is based on our perception of current conditions at the project location. This estimate reflects our opinion of probable costs at this time and is subject to change as the project design matures. The City has no control over variances in the cost of labor, materials, equipment, services provided by others, contractor's methods of determining prices, competitive bidding or market conditions, practices or bidding strategies. The City cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the cost presented herein.