

APPENDIX E

Cost Estimate Details

WOODBURN, OR
 PIPELINE IMPROVEMENTS
 CLASS 5 COST OPINION

DATE: 3/25/2009
 PROJECT NO.: 367677
 ESTIMATE BY: D Hedglin

Description	Qty	Unit	Total Unit Cost	Total Cost	
I-5 Forcemain					
12" Forcemain Parallel to Existing	6,319	LF	\$251	\$1,586,118	
DIRECT SUBTOTAL				\$1,586,118	
CONTINGENCIES	30.0%			\$475,835	
CONSTRUCTION TOTAL (ROUNDED)				\$2,062,000	
SALES TAX	0.0%			\$0	
CONSTRUCTION TOTAL WITH SALES TAX (ROUNDED)				\$2,062,000	
ENGINEERING, LEGAL/ADMIN, COORDINATION	30.0%			\$618,600	
CONSTRUCTION ENGINEERING	15.0%			\$309,300	
ENVIRONMENTAL MITIGATION	5.0%			\$103,100	
EASEMENTS & ROW ACQUISITION	0.0%			\$0	
INDIRECT COST TOTAL (ROUNDED)				\$1,031,000	
PROJECT TOTAL (ROUNDED)				\$ 3,093,000	\$ 489 \$/LF
Young St. Pipeline Project					
Gravity Pipeline - 18" with Removal	1,838	LF	\$469	\$861,174	
Manhole - 48" diameter x 15' deep	6	EA	\$7,839	\$48,025	300' spacing
DIRECT SUBTOTAL				\$909,199	
CONTINGENCIES	30.0%			\$272,760	
CONSTRUCTION TOTAL (ROUNDED)				\$1,182,000	
SALES TAX	0.0%			\$0	
CONSTRUCTION TOTAL WITH SALES TAX (ROUNDED)				\$1,182,000	
ENGINEERING, LEGAL/ADMIN, COORDINATION	30.0%			\$354,600	
CONSTRUCTION ENGINEERING	15.0%			\$177,300	
ENVIRONMENTAL MITIGATION	5.0%			\$59,100	
EASEMENTS & ROW ACQUISITION	0.0%			\$0	
INDIRECT COST TOTAL (ROUNDED)				\$591,000	
PROJECT TOTAL (ROUNDED)				\$ 1,773,000	\$ 965 \$/LF
Front St. Pipeline Project					
Gravity Pipeline - 18" with Removal	1,077	LF	\$469	\$504,616	
Manhole - 48" diameter x 15' deep	4	EA	\$7,839	\$28,141	
DIRECT SUBTOTAL				\$532,757	
CONTINGENCIES	30.0%			\$159,827	
CONSTRUCTION TOTAL (ROUNDED)				\$693,000	
SALES TAX	0.0%			\$0	
CONSTRUCTION TOTAL WITH SALES TAX (ROUNDED)				\$693,000	
ENGINEERING, LEGAL/ADMIN, COORDINATION	30.0%			\$207,900	
CONSTRUCTION ENGINEERING	15.0%			\$103,950	
ENVIRONMENTAL MITIGATION	5.0%			\$34,650	
EASEMENTS & ROW ACQUISITION	0.0%			\$0	
INDIRECT COST TOTAL (ROUNDED)				\$347,000	
PROJECT TOTAL (ROUNDED)				\$ 1,040,000	\$ 966 \$/LF
Mill Creek Interceptor					
Gravity Pipeline - 18" with Removal	2,633	LF	\$469	\$1,233,662	
Gravity Pipeline - 24" with Removal	594	LF	\$522	\$310,364	
Manhole - 48" diameter x 15' deep	11	EA	\$7,839	\$84,318	
DIRECT SUBTOTAL				\$1,628,343	
CONTINGENCIES	30.0%			\$488,503	
CONSTRUCTION TOTAL (ROUNDED)				\$2,117,000	
SALES TAX	0.0%			\$0	
CONSTRUCTION TOTAL WITH SALES TAX (ROUNDED)				\$2,117,000	
ENGINEERING, LEGAL/ADMIN, COORDINATION	30.0%			\$635,100	
CONSTRUCTION ENGINEERING	15.0%			\$317,550	
ENVIRONMENTAL MITIGATION	5.0%			\$105,850	
EASEMENTS & ROW ACQUISITION	0.0%			\$0	
INDIRECT COST TOTAL (ROUNDED)				\$1,059,000	
PROJECT TOTAL (ROUNDED)				\$ 3,176,000	\$ 984 \$/LF
Progress Way Pipeline					
Gravity Pipeline - 12" with Removal	980	LF	\$401	\$393,032	
Gravity Pipeline - 18" with Removal	566	LF	\$469	\$265,193	
Manhole - 48" diameter x 15' deep	5	EA	\$7,839	\$40,395	
DIRECT SUBTOTAL				\$698,620	

Description	Qty	Unit	Total Unit Cost	Total Cost
CONTINGENCIES	30.0%			\$209,586
CONSTRUCTION TOTAL (ROUNDED)				\$908,000
SALES TAX	0.0%			\$0
CONSTRUCTION TOTAL WITH SALES TAX (ROUNDED)				\$908,000
ENGINEERING, LEGAL/ADMIN, COORDINATION	30.0%			\$272,400
CONSTRUCTION ENGINEERING	15.0%			\$136,200
ENVIRONMENTAL MITIGATION	5.0%			\$45,400
EASEMENTS & ROW ACQUISITION	0.0%			\$0
INDIRECT COST TOTAL (ROUNDED)				\$454,000
PROJECT TOTAL (ROUNDED)				\$ 1,362,000
Hayes St Pipeline				
Gravity Pipeline - 12" with Removal	891	LF	\$401	\$357,338
Gravity Pipeline - 15" with Removal	1,456	LF	\$427	\$622,269
Manhole - 48" diameter x 15' deep	8	EA	\$7,839	\$61,324
DIRECT SUBTOTAL				\$1,040,932
CONTINGENCIES	30.0%			\$312,280
CONSTRUCTION TOTAL (ROUNDED)				\$1,353,000
SALES TAX	0.0%			\$0
CONSTRUCTION TOTAL WITH SALES TAX (ROUNDED)				\$1,353,000
ENGINEERING, LEGAL/ADMIN, COORDINATION	30.0%			\$405,900
CONSTRUCTION ENGINEERING	15.0%			\$202,950
ENVIRONMENTAL MITIGATION	5.0%			\$67,650
EASEMENTS & ROW ACQUISITION	0.0%			\$0
INDIRECT COST TOTAL (ROUNDED)				\$677,000
PROJECT TOTAL (ROUNDED)				\$ 2,030,000
Brown St Pipeline Project				
Gravity Pipeline - 12" with Removal	1,053	LF	\$401	\$422,309
Manhole - 48" diameter x 15' deep	4	EA	\$7,839	\$27,514
DIRECT SUBTOTAL				\$449,823
CONTINGENCIES	30.0%			\$134,947
CONSTRUCTION TOTAL (ROUNDED)				\$585,000
SALES TAX	9.0%			\$52,650
CONSTRUCTION TOTAL WITH SALES TAX (ROUNDED)				\$638,000
ENGINEERING, LEGAL/ADMIN, COORDINATION	30.0%			\$175,500
CONSTRUCTION ENGINEERING	15.0%			\$87,750
ENVIRONMENTAL MITIGATION	5.0%			\$29,250
EASEMENTS & ROW ACQUISITION	0.0%			\$0
INDIRECT COST TOTAL (ROUNDED)				\$293,000
PROJECT TOTAL (ROUNDED)				\$ 931,000
Sanitary Sewer Service to North Industrial Area				
Gravity Pipeline - 8" New Alignment	2,581	LF	\$136	\$352,265
Gravity Pipeline - 18" New Alignment	3,183	LF	\$236	\$751,775
Gravity Pipeline - 24" New Alignment	4,761	LF	\$272	\$1,297,023
Manhole - 48" diameter x 15' deep	35	EA	\$7,839	\$275,002
DIRECT SUBTOTAL				\$2,676,066
CONTINGENCIES	30.0%			\$802,820
CONSTRUCTION TOTAL (ROUNDED)				\$3,479,000
SALES TAX	0.0%			\$0
CONSTRUCTION TOTAL WITH SALES TAX (ROUNDED)				\$3,479,000
ENGINEERING, LEGAL/ADMIN, COORDINATION	30.0%			\$1,043,700
CONSTRUCTION ENGINEERING	15.0%			\$521,850
ENVIRONMENTAL MITIGATION	5.0%			\$173,950
EASEMENTS & ROW ACQUISITION	0.0%			\$0
INDIRECT COST TOTAL (ROUNDED)				\$1,740,000
PROJECT TOTAL (ROUNDED)				\$ 5,219,000
Sanitary Sewer Service to SW Industrial Area				
Gravity Pipeline - 8" New Alignment	889	LF	\$136	\$121,385
Gravity Pipeline - 12" New Alignment	9,139	LF	\$185	\$1,689,206
Gravity Pipeline - 18" New Alignment	7,198	LF	\$236	\$1,700,204
Gravity Pipeline - 24" New Alignment	3,431	LF	\$272	\$934,629
Manhole - 48" diameter x 15' deep	69	EA	\$7,839	\$539,738

Composite Cost
\$ 881 \$/LF

Composite Cost
\$ 865 \$/LF

Composite Cost
\$ 884 \$/LF

Composite Cost
\$ 496 \$/LF

Description	Qty	Unit	Total Unit Cost	Total Cost
DIRECT SUBTOTAL				\$4,985,162
CONTINGENCIES	30.0%			\$1,495,549
CONSTRUCTION TOTAL (ROUNDED)				\$6,481,000
SALES TAX	0.0%			\$0
CONSTRUCTION TOTAL WITH SALES TAX (ROUNDED)				\$6,481,000
ENGINEERING, LEGAL/ADMIN, COORDINATION	30.0%			\$1,944,300
CONSTRUCTION ENGINEERING	15.0%			\$972,150
ENVIRONMENTAL MITIGATION	5.0%			\$324,050
EASEMENTS & ROW ACQUISITION	0.0%			\$0
INDIRECT COST TOTAL (ROUNDED)				\$3,241,000
PROJECT TOTAL (ROUNDED)				\$ 9,722,000
New Areas Outside Current UBG				
Gravity Pipeline - 8" New Alignment	9,546	LF	\$136	\$1,302,882
Gravity Pipeline - 10" New Alignment	26,382	LF	\$171	\$4,506,960
Gravity Pipeline - 12" New Alignment	9,080	LF	\$185	\$1,678,400
Gravity Pipeline - 15" New Alignment	6,836	LF	\$205	\$1,399,464
Gravity Pipeline - 18" New Alignment	13,795	LF	\$236	\$3,258,531
Gravity Pipeline - 24" New Alignment	12,400	LF	\$272	\$3,377,754
Manhole - 48" diameter x 15' deep	260	EA	\$7,839	\$2,039,040
DIRECT SUBTOTAL				\$17,563,030
CONTINGENCIES	30.0%			\$5,268,909
CONSTRUCTION TOTAL (ROUNDED)				\$22,832,000
SALES TAX	0.0%			\$0
CONSTRUCTION TOTAL WITH SALES TAX (ROUNDED)				\$22,832,000
ENGINEERING, LEGAL/ADMIN, COORDINATION	30.0%			\$6,849,600
CONSTRUCTION ENGINEERING	15.0%			\$3,424,800
ENVIRONMENTAL MITIGATION	5.0%			\$1,141,600
EASEMENTS & ROW ACQUISITION	0.0%			\$0
INDIRECT COST TOTAL (ROUNDED)				\$11,416,000
PROJECT TOTAL (ROUNDED)				\$ 34,248,000

Composite Cost
\$ 471 \$/LF

Composite Cost
\$ 439 \$/LF

ASSUMPTIONS:

Gravity Lines:

- Easement & ROW acquisitions are not included.
- Groundwater is not an issue.
- Eleven feet of cover.
- Imported trench backfill at 50% for new pipeline alignments.
- Hydroseed restoration for new pipeline alignments.
- Imported trench backfill for pipeline replacements.
- Full width street overlay for pipeline replacements.
- PVC pipe material.
- Future escalation costs are excluded.
- No potential hazmat costs are included.

Forcemains:

- Easement & ROW acquisitions are not included.
- Groundwater is not an issue.
- Three feet of cover.
- Imported trench backfill
- Full width street overlay.
- PVC pipe material.
- No future escalation.
- Future escalation costs are excluded.
- No potential hazmat costs are included.

NOTE: The above cost opinions are in March 2009 dollars. They do not include future escalation. Financing costs, O&M costs, and potential hazardous material mitigation costs are also not included. The cost opinion shown has been prepared for guidance in project evaluation from the information available at the time of preparation. The final costs of the project will depend on actual labor and material costs, actual site conditions, actual site productivity, competitive market conditions, final project scope, final project schedule and other variable factors. As a result, the final project costs will vary from those presented above. Because of these factors, funding needs must be carefully reviewed prior to making specific financial decisions or establishing final budgets.

**WOODBURN, OR
PUMP STATION IMPROVEMENTS
CLASS 5 COST OPINION**

**DATE: 3/25/2009
PROJECT NO.: 367677
ESTIMATE BY: D Hedglin**

LS#	Description	Qty	Unit	Direct
				Total Cost
	Mill Creek Phase 1	1	LS	\$ 121,000
	Mill Creek Phase 2	1	LS	\$ 2,604,000
	Stevens Pump Station	1	LS	\$ 990,000
	I-5 Pump Stations	1	LS	\$ 1,307,000

DIRECT SUBTOTAL		\$ 5,022,000
CONTINGENCIES	30.0%	\$1,506,600
CONSTRUCTION TOTAL (ROUNDED)		<u>\$6,529,000</u>
SALES TAX	0.0%	\$0
CONSTRUCTION TOTAL WITH SALES TAX (ROUNDED)		<u>\$6,529,000</u>
ENGINEERING, LEGAL/ADMIN, COORDINATION	30.0%	\$1,958,700
CONSTRUCTION ENGINEERING	15.0%	\$979,350
ENVIRONMENTAL MITIGATION	5.0%	\$326,450
EASEMENTS & ROW ACQUISITION	0.0%	\$0
INDIRECT COST TOTAL (ROUNDED)		<u>\$3,265,000</u>
PROJECT TOTAL (ROUNDED)		<u>\$ 9,794,000</u>

ASSUMPTIONS:

Easement & ROW acquisitions are not included.
Groundwater is not an issue.
Emergency generators are not included.
No future escalation.
Future escalation costs are excluded.
No potential hazmat costs are included.

NOTE: The above cost opinions are in March 2009 dollars. They do not include future escalation. Financing costs, O&M costs, and potential hazardous material mitigation costs are also not included. The cost opinion shown has been prepared for guidance in project evaluation from the information available at the time of preparation. The final costs of the project will depend on actual labor and material costs, actual site conditions, actual site productivity, competitive market conditions, final project scope, final project schedule and other variable factors. As a result, the final project costs will vary from those presented above. Because of these factors, funding needs must be carefully reviewed prior to making specific financial decisions or establishing final budgets.