



# PLEASANT VALLEY TSP REFINEMENT

>>> Cost Estimate Summary

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## COST ESTIMATE OVERVIEW

This memorandum describes the planning-level cost estimates of four alternatives for the Pleasant Valley Transportation System Plan (TSP). Five initial alternatives were developed; however, Alternative 5 was eliminated based on input from the technical advisory committee (TAC) and citizen advisory committee (CAC).

Key findings of this memorandum are as follows:

- ▶ Several new or widened roadways may need to be constructed as capital projects in order to initiate and support development.
- ▶ The Jenne Road improvement is projected to cost approximately \$12,837,000 and 174<sup>th</sup> Avenue extension north of Giese Road is projected to cost approximately \$25,270,000. Jenne Road project costs vary slightly for Alternative 3 due to the southern realignment.
- ▶ Excluding Jenne Road improvements, 174<sup>th</sup> Avenue extension, stream crossing structures, and right-of-way, arterial roadway projects are anticipated to cost \$36,600,000 for Alternative 1 and 2, \$38,600,000 for Alternative 3, and \$43,700,000 for Alternative 4.
- ▶ Alternative 2, Alternative 3, and Alternative 4 have higher permitting and environmental mitigation costs. Alternative 2 impacts environmentally sensitive areas along 174<sup>th</sup> Avenue extension and Alternative 3 and 4 impact areas along the widened Foster Road. Alternative 1 has lower environmental mitigation costs due to the localization of Foster Road.

**IN THIS PAPER>>>**

- ▶ *Detailed Jenne Road and 174<sup>th</sup> Extension cost comparison*
- ▶ *Planning-level roadway costs*
- ▶ *Environmental mitigation costs*

- ▶ Alternative 3 has the potential for higher roadway and environmental mitigation costs as well as property impacts to create the Jenne Road/Foster Road/Giese Road 4-leg intersection.
- ▶ Alternative 2 has the highest projected total cost and Alternative 1 has the lowest projected total costs. Total costs do not include right-of-way and the number of stream crossings have the potential to increase the variability of the estimates.

## COST ESTIMATE

The four alternatives were evaluated to determine planning-level cost estimates. Detailed costs for the Jenne Road improvements and SE 174<sup>th</sup> extension and planning-level costs for the remaining arterial roadways were developed. The cost estimates include roadway construction and environmental mitigation. The assumptions, analysis, and findings are described below.

### JENNE ROAD AND 174TH EXTENSION COSTS

Due to the geometric challenges associated with improving Jenne Road or developing the 174<sup>th</sup> Avenue extension, these projects were evaluated in greater detail. Alternatives 1, 3 and 4 include improving Jenne Road to provide a separated multi-use path, northbound left-turn lane at Jenne Lane, southbound left-turn lane at SE McKinley Road, and two-way left turn lane between SE McKinley Road and SE Foster Road. Alternative 2 includes developing the 174<sup>th</sup> Avenue extension, which was assumed to include two to three vehicle travel lanes, bike lanes, planter strips, and sidewalks.

Jenne Road has two stream crossings that would need to be replaced and improved in Alternatives 1 and 4. Alternative 3 has the two replaced stream crossings and one new stream crossing near its intersection with Foster Road. The SE 174<sup>th</sup> Extension in Alternative 2 has five new stream crossings and one improved stream crossing on the north end of Jenne Road near its intersection with SE 174<sup>th</sup> Extension.

Major cost items for both projects include the retaining walls and bridges needed to address the steep grades in and around Powell Butte. Other major cost items on the 174<sup>th</sup> Avenue extension included clearing and grubbing, treatment planters, aggregate base, and pavement. Cost estimates also include a 30% construction contingency, 10% preliminary design, and 11% inspection and construction management on top of the construction items. These cost estimates do not include right-of-way purchases or environmental mitigation. The cost estimate for the 174<sup>th</sup> extension between Jenne Road and Giese Road is approximately \$25,270,000. The cost estimate for the Jenne Road improvements between the Springwater Trail crossing and Foster Road is approximately \$12,837,000. *Detailed cost estimates are included in Appendix A.*

### OTHER PROJECT CONSTRUCTION COSTS

Project costs for arterial projects other than Jenne Road and the 174<sup>th</sup> extension were estimated based on the length and width of existing and proposed roadways. New roadways were estimated at \$3,100 per length foot (LF) and reconstructed roadways were estimated at \$2,600 per LF. Table 1 shows the projects within the study area, indicating whether they would be a new or improved roadway, the project length, and estimated cost.

In addition, it is noted where projects include stream crossings, which could add additional costs associated with bridge or culvert structures and increase the potential variability in the cost estimates.

**Table 1. Project Construction Costs**

Roadway (Extents)	Alternative	New/ Improved	Length (feet)	Stream Crossings		Cost Estimate
				New	Replaced	
Foster Road (Jenne Road to 172 <sup>nd</sup> Avenue)	3	New	1,100	0	0	\$3,410,000
		Improved	2,700	0	1	\$7,020,000
	4	Improved	3,060	0	1	\$7,956,000
Foster Road (172 <sup>nd</sup> Avenue to Cheldelin Road)	4	Improved	2,520	0	2	\$6,552,000
Giese Road (Jenne Road to 172 <sup>nd</sup> Avenue)	1, 2, 3, 4	New	2,650	0	1	\$8,215,000
Giese Road (172 <sup>nd</sup> Avenue to 190 <sup>th</sup> Avenue)	1, 2, 3, 4	New	5,090	1	0	\$15,779,000
172 <sup>nd</sup> Avenue (Giese Road to Foster Road)	1, 2	New	2,590	0	1	\$8,029,000
172 <sup>nd</sup> Avenue (Foster Road to Cheldelin Road)	1, 2	Improved	1,760	0	0	\$4,576,000
	3		1,600			\$4,160,000
	4		1,990			\$5,174,000

Table 2 totals the projects associated with each alternative, presenting the total roadway construction costs associated with the projects in Table 1.

**Table 2. Project Construction Costs by Alternative (Excluding Jenne Road and 174<sup>th</sup> Extension)**

Alternative	Stream Crossings		Roadway Costs Excluding Right-of-Way	Total Roadway Costs Excluding Right-of-Way
	New	Replaced		
Alternative 1	1	4	\$36,600,000 + Jenne Road	\$49,910,000
Alternative 2	6	3	\$36,600,000 + 174 <sup>th</sup> Extension	\$62,487,000
Alternative 3	2	4	\$38,584,000 + Jenne Road	\$52,271,000
Alternative 4	1	6	\$43,676,000 + Jenne Road	\$57,073,000

As shown in the table, roadway construction costs excluding right-of-way and the Jenne Road and 174<sup>th</sup> Extension are projected to be similar across alternatives, with Alternative 2 including the highest construction costs and the most stream crossings which increase the potential variability in the cost estimates. These costs do not include right-of-way. With the exception of Jenne Road and 174<sup>th</sup> Avenue, construction costs are not significantly different across alternatives. Alternative 4's costs could be lowered by downgrading SE Foster Road to a collector east of SE 172<sup>nd</sup> Avenue or downgrading SE 172<sup>nd</sup> Avenue to a collector south of SE Foster Road.

## ENVIRONMENTAL MITIGATION COSTS

Environmental mitigation costs were developed in the April 30, 2018 memo developed by Mason, Bruce & Girard, Inc. entitled *Pleasant Valley Transportation System Plan (TSP) Refinement - Natural Resources Review of Roadway Alternatives*. The environmental costs include several components:

- ▶ Mitigation of wetland impacts and permitting costs associated with impacts
- ▶ Mitigation of upland/riparian wildlife habitat

The environmental costs were identified by roadway segment, as done with the project construction costs. The cost estimates focused on the key study roadways with distinct alignments between the alternatives – 174<sup>th</sup> Avenue, Jenne Road, Foster Road, Giese Road, and 172<sup>nd</sup> Avenue.

**Table 3. Environmental Mitigation Costs**

Roadway (Extents)	Alternative	Cost Estimate
Jenne Road (Existing Alignment)	1, 4	\$58,621
	3	\$89,507
174 <sup>th</sup> Avenue (Giese to Jenne)	2	\$202,180
Foster Road (Jenne Road to Cheldelin Road)	1, 2	\$162,277
	3	\$369,278
	4	\$413,312
Giese Road (172 <sup>nd</sup> Avenue to Jenne Road)	1, 2, 3, 4	\$72,613
172 <sup>nd</sup> Avenue (Giese Road to Cheldelin Road)	1, 2	\$180,552
	3	\$18,639
	4	\$15,030

As shown in the table, the permitting costs associated with Foster Road are significantly higher with Alternative 3 or 4 compared to Alternative 1 or 2, while the opposite is true for the costs associated with 172<sup>nd</sup> Avenue. This is because Foster Road was assumed to be a local road in Alternative 1 and 2. Overall, the total environmental permitting costs associated with each alternative (considering Foster Road, Giese Road, and 172<sup>nd</sup> Avenue) are not significantly different.

## TOTAL COSTS

A summary of the total cost of the elements considered is shown in Table 4 below.

**Table 4. Total Costs**

Alternative	Jenne Road or 174 <sup>th</sup> Cost	Other Arterial Roadway Costs	Stream Crossings		Environmental Mitigation Costs	Total Preliminary Costs (Stream Crossings New/ Replaced)
			New	Replaced		
1	\$12,837,000 (Jenne)	\$36,600,000	1	4	\$474,000	\$49,910,000 (2/3)
2	\$25,270,000 (174 <sup>th</sup> Extension)	\$36,600,000	6	3	\$618,000	\$62,487,000 (7/2)
3	\$13,317,000 (Jenne)	\$38,584,000	2	4	\$550,000	\$52,271,000 (2/4)
4	\$12,837,000 (Jenne)	\$43,676,000	1	6	\$560,000	\$57,073,000 (1/6)

As shown, Alternative 2 is projected to have the highest total cost and Alternative 1 is projected to have the lowest total cost. All alternatives require varying right-of-way impacts and stream crossing structures, which will alter total costs and may change which alternative is the highest or lowest cost.

## NEXT STEPS

This assessment provides high-level cost estimate to aid in the evaluation of alternatives. It will be used alongside the operational assessment, environmental review, and goals and objectives to determine which alternatives to advance in the screening process. Additional refinement of the cost estimate will be completed for the preferred alternative.

Appendix A Detailed Cost Estimates for Jenne Road  
and 174<sup>th</sup> Avenue Extension

**CONCEPT - COST ESTIMATE**

SECTION		172nd (Foster to Jenne)			COUNTY	Multnomah	
KEY NUMBER	KIND OF WORK	LENGTH	DATE	ROADWAY DESIGNER			
	Grading, Drainage, Structures , Paving, Signals, Signing, and Roadside Dev		5/1/18				
ITEM NUMBER	ITEM DESCRIPTION	UNIT	AMOUNT	UNIT COST	TOTAL		
<b>MOBILIZATION AND TRAFFIC CONTROL</b>							
0210-010000A	MOBILIZATION	LS	All	8.00%	\$1,485,272.00		
0225-010000A	TEMPORARY PROTECTION AND DIRECTION OF TRAFFIC, COMPLETE (5%)	LS	1	2.50%	\$464,147.50		
0280-010000A	EROSION CONTROL (4%)	LS	1	4.00%	\$742,636.00		
0290-010000A	POLLUTION CONTROL PLAN	LS	1	\$5,000.00	\$5,000.00		
0245-010000A	TEMPORARY WATER MANAGEMENT FACILITY AT STATION _____	LS	2	\$30,000.00	\$60,000.00		
<b>ROADWORK</b>							
0310-0106000A	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1	\$150,000.00	\$150,000.00		
0320-010000A	CLEARING AND GRUBBING	LS	1	\$2,500,000.00	\$2,500,000.00		
0330-0105000K	GENERAL EXCAVATION	CUYD	37,000	\$20.00	\$740,000.00		
0331-0106000J	12 INCH SUBGRADE STABILIZATION	SQYD	9,600	\$20.00	\$192,000.00		
0350-0105000J	SUBGRADE GEOTEXTILE	SQYD	38,500	\$0.90	\$34,650.00		
<b>EROSION CONTROL</b>							
0280-0113000F	SEDIMENT FENCE	FOOT	16,000	\$4.25	\$68,000.00		
0280-0114020E	INLET PROTECTION, TYPE 2	EACH	52	\$75.00	\$3,900.00		
<b>DRAINAGE AND SEWERS</b>							
0445	12 INCH STORM SEWER PIPE, 5 FT DEPTH	FOOT	3,625	\$100.00	\$362,500.00		
0445	15 INCH STORM SEWER PIPE, 5 FT DEPTH	FOOT	2,600	\$125.00	\$325,000.00		
0445	18 INCH STORM SEWER PIPE, 5 FT DEPTH	FOOT	2,600	\$150.00	\$390,000.00		
0415	MAINLINE VIDEO INSPECTION	FOOT	8,825	\$4.00	\$35,300.00		
0470-0307000E	CONCRETE CATCH BASIN.	EACH	52	\$2,000.00	\$104,000.00		
0470-0101000E	CONCRETE STORM SEWER MANHOLES	EACH	26	\$4,500.00	\$117,000.00		
0470-xxxxxx	TREATMENT PLANTERS	SF	26,370	\$100.00	\$2,637,000.00		
<b>STRUCTURES</b>							
0596-0108000A	BRIDGE STRUCTURE	SQFT	12,000	\$225.00	\$2,700,000.00		
0596-0108000A	RETAINING WALL, TYPE MSE (6 - 15 ft)	SQFT	15,100	\$65.00	\$981,500.00		
0596-0108000A	RETAINING WALL, CONVENTIONAL SEGMENTAL (6 - 20 ft)	SQFT	18,500	\$80.00	\$1,480,000.00		
<b>BASES</b>							
0641-0102000M	AGGREGATE BASE	TON	35,796	\$32.00	\$1,145,480.67		
<b>WEARING SURFACES</b>							
0745-0302000M	LEVEL 3, 1/2 INCH ACP	TON	19,521	\$100.00	\$1,952,077.50		
0759-0103000F	CONCRETE CURB & GUTTER	FOOT	16,250	\$15.00	\$243,750.00		
0759-0128000J	CONCRETE WALKS	SQFT	93,000	\$6.00	\$558,000.00		
<b>PERMANENT TRAFFIC CONTROL AND GUIDANCE DEVICES</b>							
0865	STRIPING	LS	1	\$50,000.00	\$50,000.00		
<b>PERMANENT TRAFFIC CONTROL AND ILLUMINATION SYSTEMS</b>							
0940-XXXXXXXX	PERMANENT SIGNS, COMPLETE	LS	1	\$60,000.00	\$60,000.00		
0970-XXXXXXXX	STREET LIGHTING SYSTEM, COMPLETE	EACH	52	\$7,500.00	\$390,000.00		
0990-0102000A	TRAFFIC SIGNAL MODIFICATION	LS	1	\$350,000.00	\$350,000.00		
<b>RIGHT-OF-WAY DEVELOPMENT AND CONTROL</b>							
1030	PLANTER STRIP	SF	77,552	\$6.00	\$465,312.00		
1030	DISTURBED AREAS STABILIZATION	SF	155120	\$3.00	\$465,360.00		
<b>SUBTOTAL, Construction Items</b>							
	Construction Contingencies (30%)			30%	\$6,377,400.00		
	Preliminary Design				\$2,763,540.00		
	Inspection/CM			11%	\$3,039,894.00		
	ROW				\$0.00		
<b>TOTAL CONSTRUCTION COST</b>					<b>\$33,439,000</b>		



**CONCEPT - COST ESTIMATE**

SECTION						COUNTY
<b>172nd (Foster to Giese)</b>						<b>Multnomah</b>
KEY NUMBER	KIND OF WORK	LENGTH	DATE	ROADWAY DESIGNER		
	<b>Grading, Drainage, Structures , Paving, Signals, Signing, and Roadside Dev</b>		5/1/18			
ITEM NUMBER	ITEM DESCRIPTION	UNIT	AMOUNT	UNIT COST	TOTAL	
<b>MOBILIZATION AND TRAFFIC CONTROL</b>						
0210-0100000A	MOBILIZATION	LS	All	8.00%	\$362,864.00	
0225-0100000A	TEMPORARY PROTECTION AND DIRECTION OF TRAFFIC, COMPLETE (5%)	LS	1	2.50%	\$113,395.00	
0280-0100000A	EROSION CONTROL (4%)	LS	1	4.00%	\$181,432.00	
0290-0100000A	POLLUTION CONTROL PLAN	LS	1	\$5,000.00	\$5,000.00	
0245-0100000A	TEMPORARY WATER MANAGEMENT FACILITY AT STATION _____	LS	2	\$30,000.00	\$60,000.00	
<b>ROADWORK</b>						
0310-0106000A	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1	\$150,000.00	\$150,000.00	
0320-0100000A	CLEARING AND GRUBBING	LS	1	\$750,000.00	\$750,000.00	
0330-0105000K	GENERAL EXCAVATION	CUYD	16,000	\$20.00	\$320,000.00	
0331-0106000J	12 INCH SUBGRADE STABILIZATION	SQYD	2,600	\$20.00	\$52,000.00	
0350-0105000J	SUBGRADE GEOTEXTILE	SQYD	10,500	\$0.90	\$9,450.00	
<b>EROSION CONTROL</b>						
0280-0113000F	SEDIMENT FENCE	FOOT	5,200	\$4.25	\$22,100.00	
0280-0114020E	INLET PROTECTION, TYPE 2	EACH	18	\$75.00	\$1,350.00	
<b>DRAINAGE AND SEWERS</b>						
0445	12 INCH STORM SEWER PIPE, 5 FT DEPTH	FOOT	1,260	\$100.00	\$126,000.00	
0445	15 INCH STORM SEWER PIPE, 5 FT DEPTH	FOOT	900	\$125.00	\$112,500.00	
0445	18 INCH STORM SEWER PIPE, 5 FT DEPTH	FOOT	900	\$150.00	\$135,000.00	
0415	MAINLINE VIDEO INSPECTION	FOOT	3,060	\$4.00	\$12,240.00	
0470-0307000E	CONCRETE CATCH BASIN.	EACH	18	\$2,000.00	\$36,000.00	
0470-0101000E	CONCRETE STORM SEWER MANHOLES	EACH	10	\$4,500.00	\$45,000.00	
0470-xxxxxx	TREATMENT PLANTERS	SF	7,542	\$100.00	\$754,200.00	
<b>STRUCTURES</b>						
0596-0108000A	BRIDGE STRUCTURE	SQFT	0	\$225.00	\$0.00	
0596-0108000A	RETAINING WALL, TYPE MSE (6 - 15 ft)	SQFT	0	\$65.00	\$0.00	
0596-0108000A	RETAINING WALL, CONVENTIONAL SEGMENTAL (6 - 20 ft)	SQFT	0	\$80.00	\$0.00	
<b>BASES</b>						
0641-0102000M	AGGREGATE BASE	TON	9,802	\$32.00	\$313,664.00	
<b>WEARING SURFACES</b>						
0745-0302000M	LEVEL 3, 1/2 INCH ACP	TON	5,265	\$100.00	\$526,500.00	
0759-0103000F	CONCRETE CURB & GUTTER	FOOT	5,200	\$15.00	\$78,000.00	
0759-0128000J	CONCRETE WALKS	SQFT	31,200	\$6.00	\$187,200.00	
<b>PERMANENT TRAFFIC CONTROL AND GUIDANCE DEVICES</b>						
0865	STRIPING	LS	1	\$25,000.00	\$25,000.00	
<b>PERMANENT TRAFFIC CONTROL AND ILLUMINATION SYSTEMS</b>						
0940-XXXXXXXX	PERMANENT SIGNS, COMPLETE	LS	1	\$25,000.00	\$25,000.00	
0970-XXXXXXXX	STREET LIGHTING SYSTEM, COMPLETE	EACH	17	\$7,500.00	\$127,500.00	
0990-0102000A	TRAFFIC SIGNAL MODIFICATION	LS	1	\$350,000.00	\$350,000.00	
<b>RIGHT-OF-WAY DEVELOPMENT AND CONTROL</b>						
1030	PLANTER STRIP	SF	26,000	\$6.00	\$156,000.00	
1030	DISTURBED AREAS STABILIZATION	SF	52000	\$3.00	\$156,000.00	
<b>SUBTOTAL, Construction Items</b>						
	Construction Contingencies (30%)			30%	\$1,557,900.00	
	Preliminary Design				\$675,090.00	
	Inspection/CM			11%	\$742,599.00	
	ROW				\$0.00	
<b>TOTAL CONSTRUCTION COST</b>					<b>\$8,169,000</b>	

**CONCEPT - COST ESTIMATE**

SECTION						COUNTY
Jenne (Foster to Jenne)					Multnomah	
KEY NUMBER	KIND OF WORK	LENGTH	DATE	ROADWAY DESIGNER		
	Grading, Drainage, Structures , Paving, Signals, Signing, and Roadside Dev		6/22/18			
ITEM NUMBER	ITEM DESCRIPTION	UNIT	AMOUNT	UNIT COST	TOTAL	
<b>MOBILIZATION AND TRAFFIC CONTROL</b>						
0210-0100000A	MOBILIZATION	LS	All	8.00%	\$570,208.00	
0225-0100000A	TEMPORARY PROTECTION AND DIRECTION OF TRAFFIC, COMPLETE (5%)	LS	1	2.50%	\$178,190.00	
0280-0100000A	EROSION CONTROL (4%)	LS	1	4.00%	\$285,104.00	
0290-0100000A	POLLUTION CONTROL PLAN	LS	1	\$5,000.00	\$5,000.00	
0245-0100000A	TEMPORARY WATER MANAGEMENT FACILITY AT STATION _____	LS	2	\$30,000.00	\$60,000.00	
<b>ROADWORK</b>						
0310-0106000A	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1	\$150,000.00	\$150,000.00	
0320-0100000A	CLEARING AND GRUBBING	LS	1	\$87,500.00	\$87,500.00	
0330-0105000K	GENERAL EXCAVATION	CUYD	8,550	\$20.00	\$171,000.00	
0331-0106000J	12 INCH SUBGRADE STABILIZATION	SQYD	4,400	\$20.00	\$88,000.00	
0350-0105000J	SUBGRADE GEOTEXTILE	SQYD	16,000	\$0.90	\$14,400.00	
<b>EROSION CONTROL</b>						
0280-0113000F	SEDIMENT FENCE	FOOT	10,000	\$4.25	\$42,500.00	
0280-0114020E	INLET PROTECTION, TYPE 2	EACH	32	\$75.00	\$2,400.00	
<b>DRAINAGE AND SEWERS</b>						
0445	12 INCH STORM SEWER PIPE, 5 FT DEPTH	FOOT	2,200	\$100.00	\$220,000.00	
0445	15 INCH STORM SEWER PIPE, 5 FT DEPTH	FOOT	1,600	\$125.00	\$200,000.00	
0445	18 INCH STORM SEWER PIPE, 5 FT DEPTH	FOOT	1,600	\$150.00	\$240,000.00	
0415	MAINLINE VIDEO INSPECTION	FOOT	5,400	\$4.00	\$21,600.00	
0470-0307000E	CONCRETE CATCH BASIN.	EACH	32	\$2,000.00	\$64,000.00	
0470-0101000E	CONCRETE STORM SEWER MANHOLES	EACH	16	\$4,500.00	\$72,000.00	
0470-xxxxxx	TREATMENT PLANTERS	SF	11,496	\$100.00	\$1,149,600.00	
<b>STRUCTURES</b>						
0596-0108000A	BRIDGE STRUCTURE	SQFT	0	\$225.00	\$0.00	
0596-0108000A	RETAINING WALL, TYPE MSE (6 - 15 ft)	SQFT	3,500	\$65.00	\$227,500.00	
0596-0108000A	RETAINING WALL, CONVENTIONAL SEGMENTAL (6 - 20 ft)	SQFT	16,500	\$80.00	\$1,320,000.00	
<b>BASES</b>						
0641-0102000M	AGGREGATE BASE	TON	15,050	\$32.00	\$481,600.00	
<b>WEARING SURFACES</b>						
0745-0302000M	LEVEL 3, 1/2 INCH ACP	TON	8,067	\$100.00	\$806,737.50	
0759-0103000F	CONCRETE CURB & GUTTER	FOOT	9,500	\$15.00	\$142,500.00	
0759-0128000J	CONCRETE WALKS	SQFT	47,600	\$6.00	\$285,600.00	
<b>PERMANENT TRAFFIC CONTROL AND GUIDANCE DEVICES</b>						
0865	STRIPING	LS	1	\$55,000.00	\$55,000.00	
<b>PERMANENT TRAFFIC CONTROL AND ILLUMINATION SYSTEMS</b>						
0940-XXXXXXXX	PERMANENT SIGNS, COMPLETE	LS	1	\$60,000.00	\$60,000.00	
0970-XXXXXXXX	STREET LIGHTING SYSTEM, COMPLETE	EACH	32	\$7,500.00	\$240,000.00	
0990-0102000A	TRAFFIC SIGNAL MODIFICATION	LS	1	\$350,000.00	\$350,000.00	
<b>RIGHT-OF-WAY DEVELOPMENT AND CONTROL</b>						
1030	PLANTER STRIP	SF	47,600	\$6.00	\$285,600.00	
1030	DISTURBED AREAS STABILIZATION	SF	95000	\$3.00	\$285,000.00	
<b>SUBTOTAL, Construction Items</b>						
	Construction Contingencies (30%)			30%	\$2,448,300.00	
	Preliminary Design				\$1,060,930.00	
	Inspection/CM			11%	\$1,167,023.00	
	ROW				\$0.00	
<b>TOTAL CONSTRUCTION COST</b>					<b>\$12,837,000</b>	