

Short Term Low-Cost Countermeasures  
Deschutes County, Oregon

Figure  
1

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**Medium Term Low-Cost Countermeasures  
Deschutes County, Oregon**

**Figure  
2**

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Table 1 Summary of Low-Cost Projects

Location	Short-Term Projects	Medium-Term Projects
<b>Redmond City Limits to Quarry Ln</b>	<ul style="list-style-type: none"> <li>▪ Install speed feedback signs in transition zones;</li> <li>▪ Inlaid Raised Pavement Markers</li> </ul>	<ul style="list-style-type: none"> <li>▪ None</li> </ul>
<b>Quarry Ln</b>	<ul style="list-style-type: none"> <li>▪ Increase Sight Distance;</li> <li>▪ Median on minor street approach</li> <li>▪ Intersection lighting</li> </ul>	<ul style="list-style-type: none"> <li>▪ Right turn Deceleration Lane</li> </ul>
<b>Quarry Ln to 61st Street</b>	<ul style="list-style-type: none"> <li>▪ Inlaid Raised Pavement Markers</li> </ul>	<ul style="list-style-type: none"> <li>▪ Segment Lighting, Increase clear zone (Reduce Roadside Hazard Rating)</li> </ul>
<b>61st Street</b>	<ul style="list-style-type: none"> <li>▪ Intersection lighting</li> <li>▪ Median on minor street approach</li> </ul>	<ul style="list-style-type: none"> <li>▪ Right turn Decel Lane</li> <li>▪ Accel Lane</li> </ul>
<b>61st Street to Deschutes Jct.</b>	<ul style="list-style-type: none"> <li>▪ Inlaid Raised Pavement Markers</li> </ul>	<ul style="list-style-type: none"> <li>▪ Increase clear zone (Reduce RHR from 2 to 1)</li> </ul>
<b>Deschutes Jct.</b>	<ul style="list-style-type: none"> <li>▪ Restripe Merge</li> </ul>	<ul style="list-style-type: none"> <li>▪ None</li> </ul>
<b>Deschutes Jct. to Ft Thompson Ln</b>	<ul style="list-style-type: none"> <li>▪ Inlaid Raised Pavement Markers</li> </ul>	<ul style="list-style-type: none"> <li>▪ Increase clear zone (Reduce RHR from 2 to 1)</li> </ul>
<b>Ft Thompson Ln</b>	<ul style="list-style-type: none"> <li>▪ None</li> </ul>	<ul style="list-style-type: none"> <li>▪ Intersection lighting;</li> <li>▪ Median on minor street approach</li> </ul>
<b>Ft Thompson Ln to Bend City Limits</b>	<ul style="list-style-type: none"> <li>▪ Install speed feedback signs in transition zone;</li> <li>▪ Inlaid Raised Pavement Markers</li> </ul>	<ul style="list-style-type: none"> <li>▪ Segment Lighting</li> </ul>

Table 2 Summary of Short-Term, Low-Cost Projects

Location	Annual Observed Crash Frequency	Annual Predicted Crash Frequency	Annual Expected Crash Frequency	Short-Term Project Countermeasures	Project CMF	20-Year Crash Reduction	Preliminary 20-Yr Cost Estimate	Expected Annual Comprehensive Crash Cost Reduction (Benefit)	Benefit / Cost Ratio
Redmond City Limits to Quarry Ln	3.2	6.5	5.1	<ul style="list-style-type: none"> <li>▪ Install speed feedback signs in transition zones;</li> <li>▪ Inlaid Raised Pavement Markers</li> </ul>	82%	19.1	\$ 32,000	\$ 157,100	61.2
Quarry Ln	0.2	0.6	0.5	<ul style="list-style-type: none"> <li>▪ Increase Sight Distance;</li> <li>▪ Median on minor street approach;</li> <li>▪ Intersection lighting</li> </ul>	82%	1.8	\$ 28,000	\$ 14,500	6.5
Quarry Ln to 61st Street	5	9.2	7.4	<ul style="list-style-type: none"> <li>▪ Inlaid Raised Pavement Markers</li> </ul>	93%	11.0	\$ 14,000	\$ 90,500	80.6
61st Street	1.2	0.7	0.8	<ul style="list-style-type: none"> <li>▪ Intersection lighting;</li> <li>▪ Median on minor street approach</li> </ul>	50%	7.8	\$ 27,000	\$ 64,503.49	29.8
61st Street to Deschutes Jct.	1.4	6.1	4.1	<ul style="list-style-type: none"> <li>▪ Inlaid Raised Pavement Markers</li> </ul>	93%	6.0	\$ 9,000	\$ 49,600	68.7
Deschutes Jct.	1.4	0.7	0.8	<ul style="list-style-type: none"> <li>▪ Restripe Merge</li> </ul>	99%	0.0	\$ 14,000	\$ 500	0.1
Deschutes Jct. to Ft Thompson Ln	5.8	7.8	7.0	<ul style="list-style-type: none"> <li>▪ Inlaid Raised Pavement Markers;</li> <li>▪</li> </ul>	93%	10.3	\$ 14,000	\$ 85,200	75.8
Ft Thompson Ln	0.6	0.9	0.8	<ul style="list-style-type: none"> <li>▪ None</li> </ul>	N/A	0.0	\$ -	\$ -	--
Ft Thompson Ln to Bend City Limits	2.8	3.9	3.4	<ul style="list-style-type: none"> <li>▪ Install speed feedback signs in transition zones;</li> <li>▪ Inlaid Raised Pavement Markers</li> </ul>	82%	12.6	\$ 27,000	\$ 103,800	47.9
<b>Total Short-Term Projects</b>	<b>21.6</b>	<b>36.4</b>	<b>30.1</b>			<b>68.6</b>	<b>\$ 165,000</b>	<b>\$ 565,000</b>	<b>42.7</b>

Table 3 Summary of Medium-Term Low-Cost Projects

Location	Annual Observed Crash Frequency	Annual Predicted Crash Frequency	Annual Expected Crash Frequency	Medium-Term Project Countermeasures	Project CMF	20-Year Crash Reduction	Preliminary 20-Yr Cost Estimate	Expected Annual Comprehensive Crash Cost Reduction (Benefit)	Benefit / Cost Ratio
Redmond City Limits to Quarry Ln	3.2	6.5	5.1	<ul style="list-style-type: none"> <li>▪ None</li> </ul>	N/A	N/A	N/A	N/A	N/A
Quarry Ln	0.2	0.6	0.5	<ul style="list-style-type: none"> <li>▪ Deceleration Lane</li> </ul>	93%	0.7	\$ 188,000	\$ 5,700	0.4
Quarry Ln to 61st Street	5	9.2	7.4	<ul style="list-style-type: none"> <li>▪ Segment Lighting;</li> <li>▪ Increase clear zone (Reduce RHR)</li> </ul>	85%	22.1	\$ 1,211,000	\$ 182,200	1.9
61st Street	1.2	0.7	0.8	<ul style="list-style-type: none"> <li>▪ Accel Lane;</li> <li>▪ Decel Lane</li> </ul>	83%	2.7	\$ 188,000	\$ 22,400	0.7
61st Street to Deschutes Jct.	1.4	6.1	4.1	<ul style="list-style-type: none"> <li>▪ Increase clear zone (Reduce RHR)</li> </ul>	94%	4.9	\$ 8,000	\$ 40,000	62.5
Deschutes Jct.	1.4	0.7	0.8	<ul style="list-style-type: none"> <li>▪ None</li> </ul>	N/A	N/A	N/A	\$ -	N/A
Deschutes Jct. to Ft Thompson Ln	5.8	7.8	7.0	<ul style="list-style-type: none"> <li>▪ Increase clear zone (Reduce RHR)</li> </ul>	94%	8.4	\$ 8,000	\$ 69,000	107.3
Ft Thompson Ln	0.6	0.9	0.8	<ul style="list-style-type: none"> <li>• Intersection lighting;</li> <li>• Median on minor street approach</li> </ul>	51%	8.2	N/A	\$ 67,800	31.3
Ft Thompson Ln to Bend City Limits	2.8	3.9	3.4	<ul style="list-style-type: none"> <li>▪ Segment Lighting</li> </ul>	96%	2.5	\$ 466,000	\$ 20,700	0.6
<b>Total Medium-Term</b>	<b>21.6</b>	<b>36.4</b>	<b>30.1</b>			<b>49.5</b>	<b>\$ 2,284,000</b>	<b>\$ 407,700</b>	<b>2.2</b>

Land Use	Distance to U-turn Opportunity	Major Street Left-turn Volumes (vph)		
		Low	Medium	High
Commercial	>2 miles	RIRO	LI	LI
	≤ 2 miles	RIRO	RIRO	RIRO
Other (residential, public driveway/street, industrial, etc.)	> 2 miles	RIRO	RIRO	LI
	≤ 2 miles	RIRO	RIRO	RIRO

RIRO = Access restricted to Right-in, Right-out only

LI = Access restricted to major street left-in only

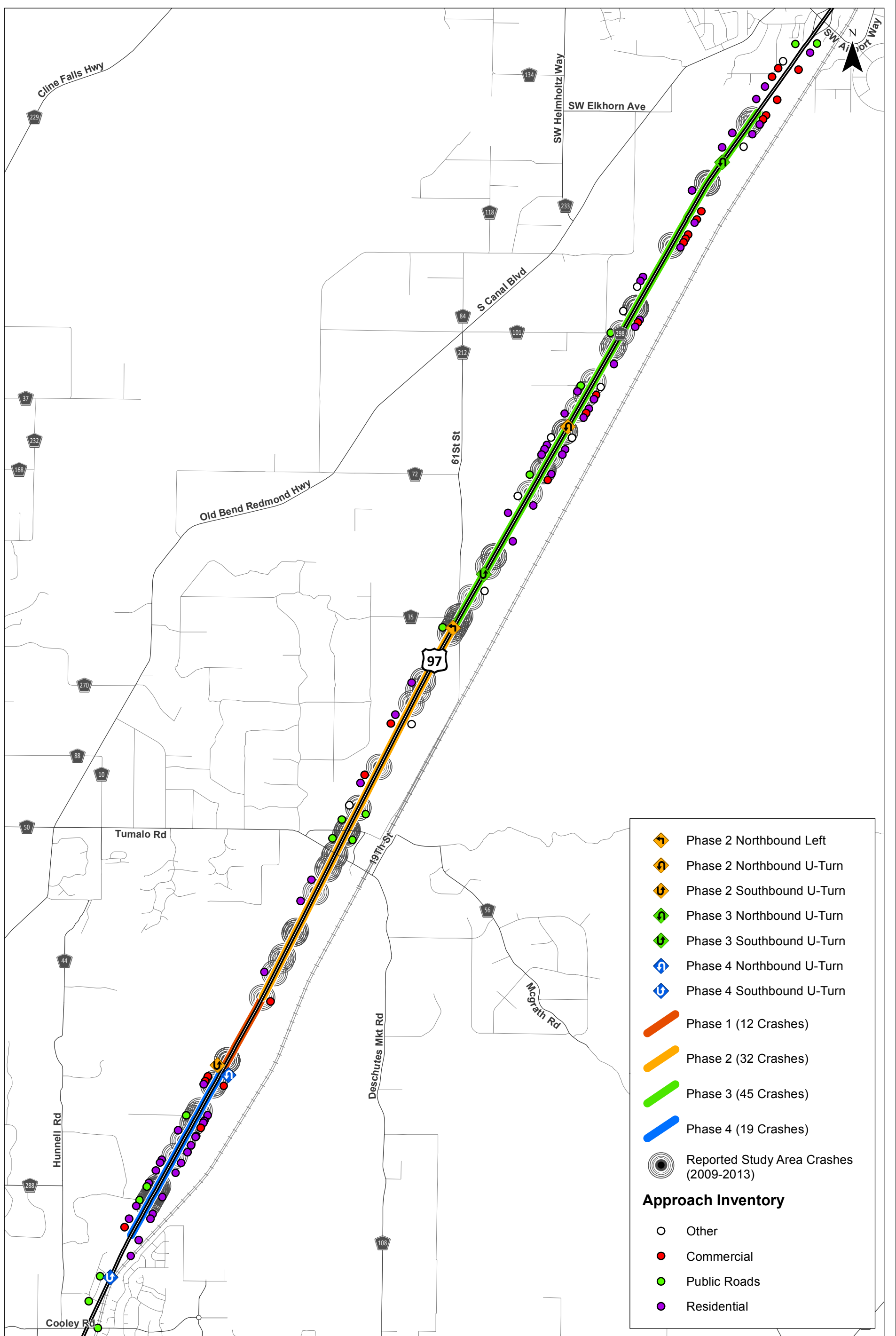
vph = Vehicles Per Hour



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U-Turn Configuration

Figure  
**1**



**Access Management Concept  
US 97, MP 124.40 - 133.39  
Deschutes County, Oregon**

**Figure  
1**

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