

**MANDATORY CRITERIA**

**Ensure the alternative meets the project’s Purpose and Need**

Objectives

- Ensure alternative improves interchange operation and meets capacity needs for a 20-year planning horizon at key project locations.
- Ensure alternative meets ODOT or applicable jurisdictions’ design standards.
- Ensure alternative addresses safety concerns within the project area.
- Ensure alternative replaces the Bear Creek Bridge.

Evaluation Criteria									
	6-lane Diamond w/ loop PBA West PBA East	6-lane Diamond w/loop PBA West TPAU East	SPUI North PBA West N. Phoenix Through East	SPUI North Bolz West N. Phoenix Through East	CDI PBA West N. Phoenix Through East	CDI PBA West TPAU East	CDI Bolz West N. Phoenix Through East	CDI Bolz West TPAU East	Comments
1-2. Does the alternative meet capacity standards at key locations for the 20-year design period, as measured by the governing jurisdictions’ standards?	YES	YES	YES	YES	YES	YES	YES	YES	
1-3. Does the alternative meet roadway design and spacing standards and spacing requirements described in the Oregon Highway Plan, Highway Design Manual , or applicable jurisdictions’ standards?	NO	NO	NO	NO	NO	NO	NO	NO	Intersection spacing throughout much of the project area is substandard.
1-4. Does the alternative provide standard bike and pedestrian facilities?	YES	YES	YES	YES	YES	YES	YES	YES	
1-5. Does the alternative address off-system improvements to reduce interchange congestion?	YES	YES	YES	YES	YES	YES	YES	YES	
1-6. Does the alternative improve safety within the project area? (Improved sight distances, access management, etc.)	YES	YES	YES	YES	YES	YES	YES	YES	
1-7. Will the alternative replace the existing Bear Creek bridge?	YES	YES	YES	YES	YES	YES	YES	YES	

<b>QUANTITATIVE MEASURES</b>	<b>6-lane Diamond w/ loop</b> PBA West PBA East	<b>6-lane Diamond w/loop</b> PBA West TPAU East	<b>SPUI North</b> PBA West N. Phoenix Through East	<b>SPUI North</b> Bolz West N. Phoenix Through East	<b>CDI</b> PBA West N. Phoenix Through East	<b>CDI</b> PBA West TPAU East	<b>CDI</b> Bolz West N. Phoenix Through East	<b>CDI</b> Bolz West TPAU East	<b>Comments</b>
V/C ratios, LOS or applicable governing jurisdictions standard at key intersections within the project area for the design year <sup>15</sup> .	0.86	0.86	0.86	n/a <sup>4</sup>	0.86	0.86	n/a <sup>4</sup>	n/a <sup>4</sup>	Fern Valley Road @ OR 99
	0.74	0.74	0.74	0.80	0.74	0.74	0.80	0.80	Bolz Road @ OR 99
	0.65	0.65	0.58	0.58	0.62	0.62	0.62	0.62	Interchange
	0.61	0.63	0.58	0.58	0.58	0.63	0.58	0.63	Fern Valley Road @ N/S Phoenix Rd
Is it a 20 year fix for the interchange?	YES	YES	YES	YES	YES	YES	YES	YES	
When does the interchange exceed standards?	2038	2038	2048 <sup>2</sup>	2048 <sup>2</sup>	2042	2042	2042	2042	
Does it allow for future growth beyond what is forecasted?	NO	NO	NO	YES	NO	NO	YES	YES	Due to the v/c at the intersection Fern Valley Road and OR 99 <sup>3</sup>
Does queuing interfere with interchange or couplet operations? If no, how much flexibility is there beyond 2030?	NO	NO	NO	NO	NO	NO	NO	NO	
	20+years	20+years	20+years	20+years	20+years	20+years	20+years	20+years	
Number of design exceptions required for alternative.									

**NOTE: Future growth is based off of current local comprehensive plans and regional population and employment totals.**

<sup>1</sup>The maximum acceptable v/c ratio for intersections in the project area is **0.85**, with the exception of **0.75** for the ramp terminal intersections.

<sup>2</sup>2048 is based off of the v/c at the southbound/northbound off ramp right turn intersections. By signalizing these intersections the interchange would last an estimated 8 additional years.

<sup>3</sup>If future projects improve operations on OR 99, there would be an opportunity for future growth. The amount of growth would then depend on the interchange capacity.

<sup>4</sup>For these alternatives the signalized intersection is no longer at Fern Valley Road and OR 99; it is located and Cheryl Lane and OR 99. The v/c ratio is 0.59.

<sup>5</sup>Any differences in these values as compared to the previous matrix are due to the reduction of the lanes on OR 99 from 12 feet to 11 feet.