

# OR 66 Green Springs Highway IAMP

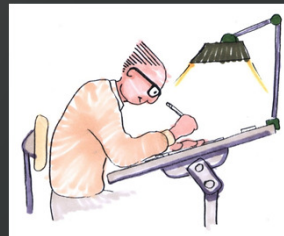
Project Team Meeting #5  
ODOT Offices  
Klamath Falls  
July 19<sup>th</sup>, 2012



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## Meeting Overview

- Introductions
- Concept Refinement
- Alternative Development
- Next Steps



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## Concept Refinement

- Qualitative assessment of initial concepts
- Refinement of alternatives
  - Based on qualitative assessment and input received to-date, discussion at PT meetings, and public workshops
- Evaluation of alternatives



## Concept Evaluation

Concept	Operations	Multimodal	Land Use	Economic Develop.	Enviro., Social, and Equity Factors	Accessib. & Connectiv.	Cost	Implem.	Average Score	Recommended for Additional Evaluation?
West Interchange Concepts										
W-1	+1	0	+1	+1	0	+2	+1	+1	+0.875	<b>Yes</b>
W-2	-1	0	0	-1	0	-1	0	-2	-0.625	No
W-3	+2	0	+1	+1	0	+1	+2	+2	+1.125	<b>Yes</b>
East Interchange Concept										
E-1	+1	+1	+1	+1	-1	+1	+1	+2	+0.875	<b>Yes</b>
E-2	0	+1	-1	-2	-1	-1	+1	0	-0.375	No
E-3	+1	+1	+2	+1	-2	+1	-1	-1	+0.250	No
E-4	+2	+2	+1	+2	-1	+2	-2	+1	+0.875	<b>Yes</b>
Interchange Form Concepts										
I-1	+1	+1	+2	+2	+1	+2	+2	+2	+1.625	<b>Yes</b>
I-2	-1	+1	+1	+1	-1	+2	+1	+1	+0.500	<b>Yes</b>
I-3	-2	+1	+1	-1	-1	+2	+1	+1	+0.375	No
I-4	+2	-2	-2	-2	-2	+2	-2	-2	-1.000	No
I-5	+2	-1	+1	+1	+1	+2	-1	+1	+0.750	<b>Yes</b>
I-6	+2	-2	-2	-2	-2	+2	-2	-2	-1.000	No



# West of Interchange Concepts

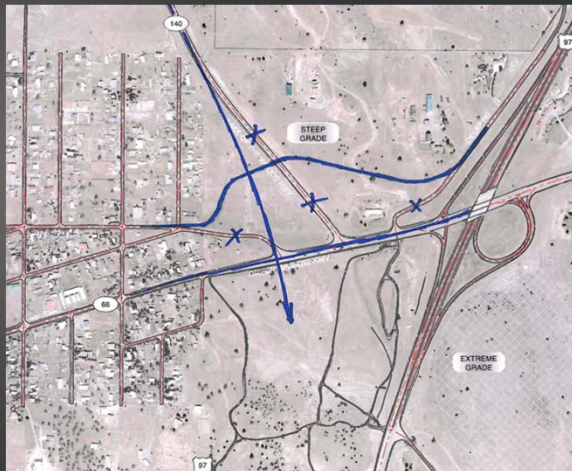


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## West Side Concept W-1: Realign OR 140

➤ Concept to be combined with Concept W-3

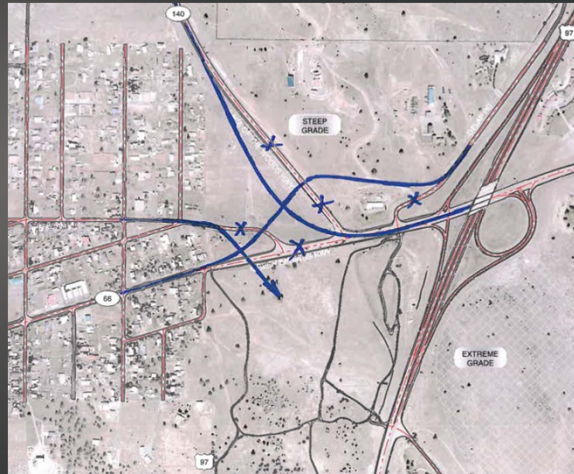
- Retain Delap Pit Road connection.
- Remove Balsalm Drive Connection



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## West Side Concept W-2: Align OR 140 with OR 140 East of Interchange

- Not a preferred option because:
  - Long-term benefits realignment are not substantial



## West Side Concept W-3: Realign OR 140 & Disconnect Delap Pit Road & Balsam Drive

- Combined with Concept W-1



# East of Interchange Concepts



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## East Side Concept E-1: Greensprings-Memorial Frontage Road

- Form a new frontage road north of OR 140 and introduce a new intersection farther to the east away from the interchange
- Identified as a preferred option given the access provided to existing businesses along Greensprings Drive



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## East Side Concept E-2: Realign Greensprings & Memorial

➤ Not a preferred option because of:

- The longitudinal grade on OR 140
- Indirect access to Greensprings Drive and Memorial Drive

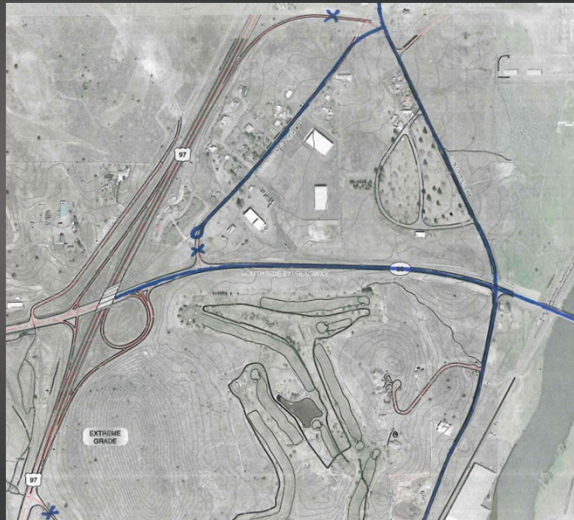


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## East Side Concept E-3: Memorial Full Access

➤ Not a preferred option because of:

- Required widening of the existing bridge on OR 140 over the river



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## East Side Concept E-4: Memorial Jughandle Interchange

- Concept modified to include a frontage road along OR 140



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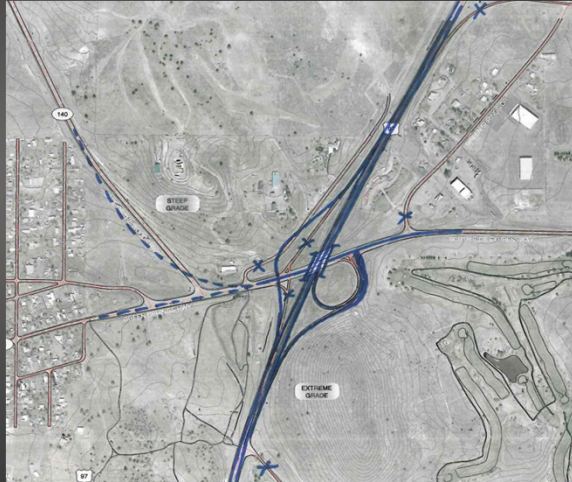
## Interchange Concepts



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## Interchange Concept I-1: Improve Existing Interchange

- Maintain the existing configuration
- Realign the US 97 SB off-ramp
- Improve the US 97 SB ramp terminal intersection angle
- Well suited to accommodate future demand scenario



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## Interchange Concept I-2: Diamond Interchange

- Combined with Concept I-1
  - Add northbound on-ramp
  - Retain existing loop ramp

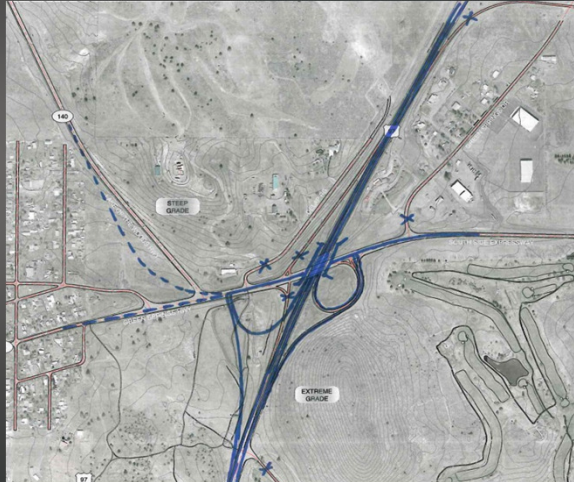


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## Interchange Concept I-3: Partial Cloverleaf Interchange

- Not a preferred option because:
  - Configuration is not well suited to serve future demand



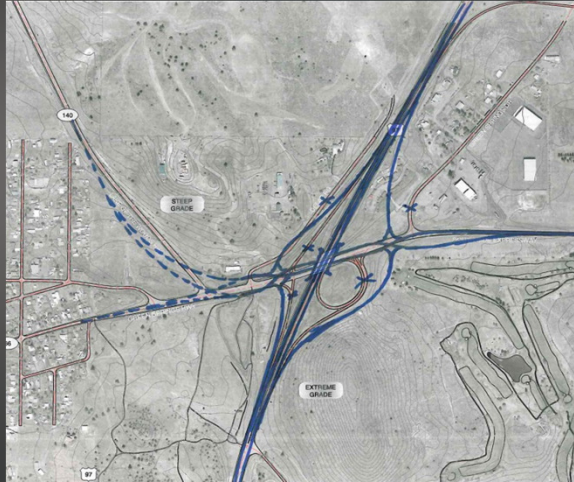
## Interchange Concept I-4: SPUI Configuration

- Not a preferred option because:
  - Significant reconstruction of interchange would be required
  - Would provide excessive capacity compared to projected needs
  - Expensive



## Interchange Concept I-5: Diverging Diamond Interchange

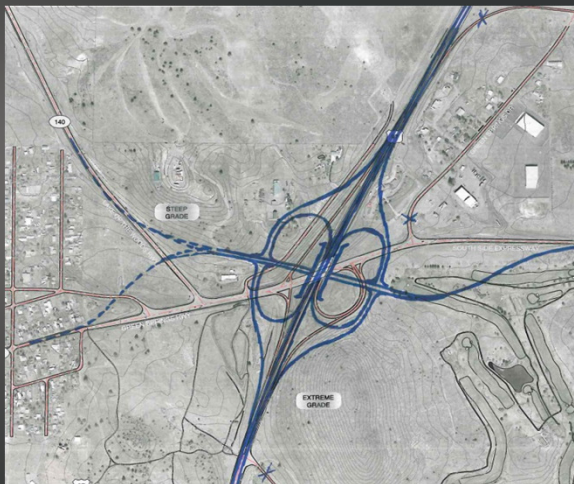
- Creates “cross-over” movement between the ramp terminals
- Concept explored as a long-term capacity option
- Could be phased with other improvements



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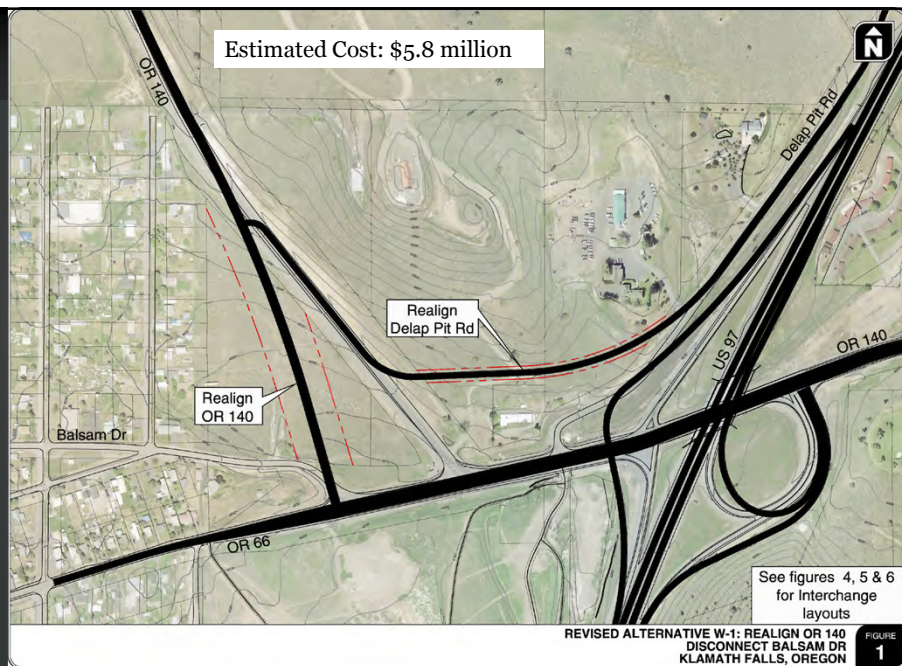
## Interchange Concept I-6: Full Cloverleaf Interchange

- Not a preferred option because:
  - Large footprint with topographical challenges in the NW and SE quadrants
  - Potential bicycle and pedestrian conflicts
  - Would require significant reconstruction of interchange
  - Expensive



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# Refined West of Interchange Alternatives

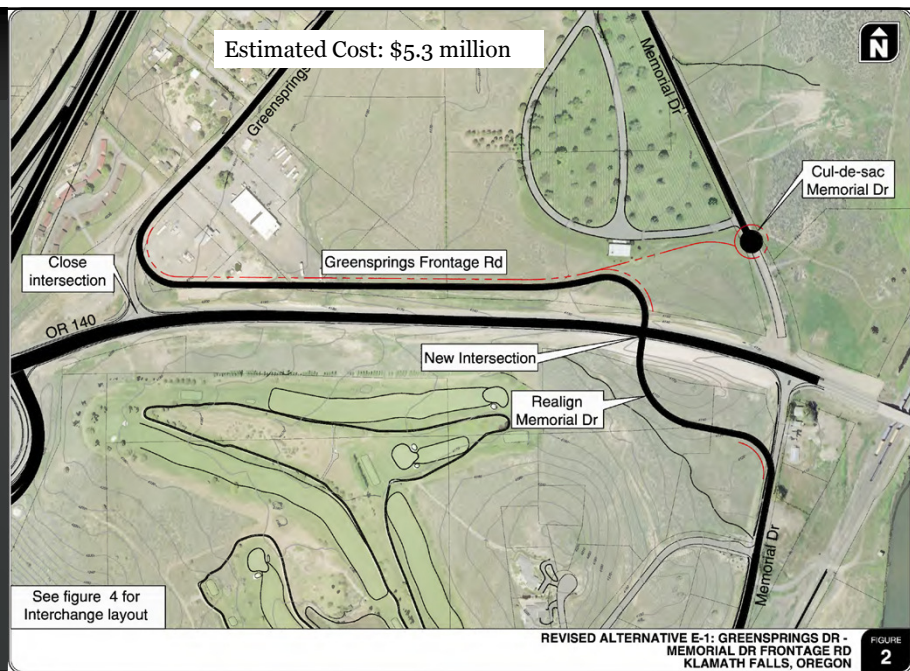




# Refined East of Interchange Alternatives

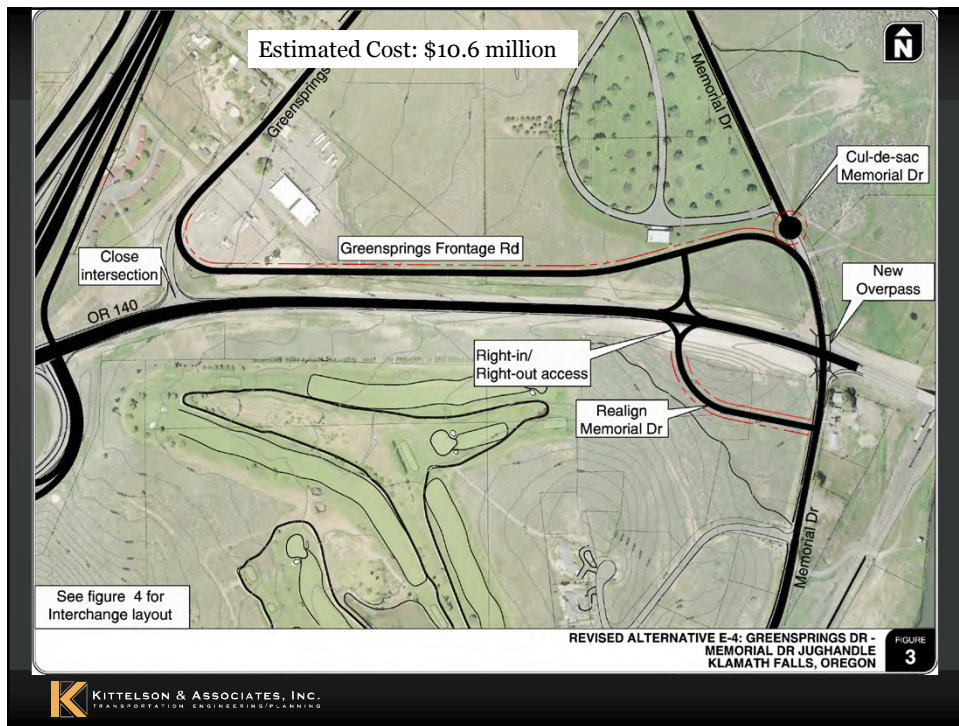


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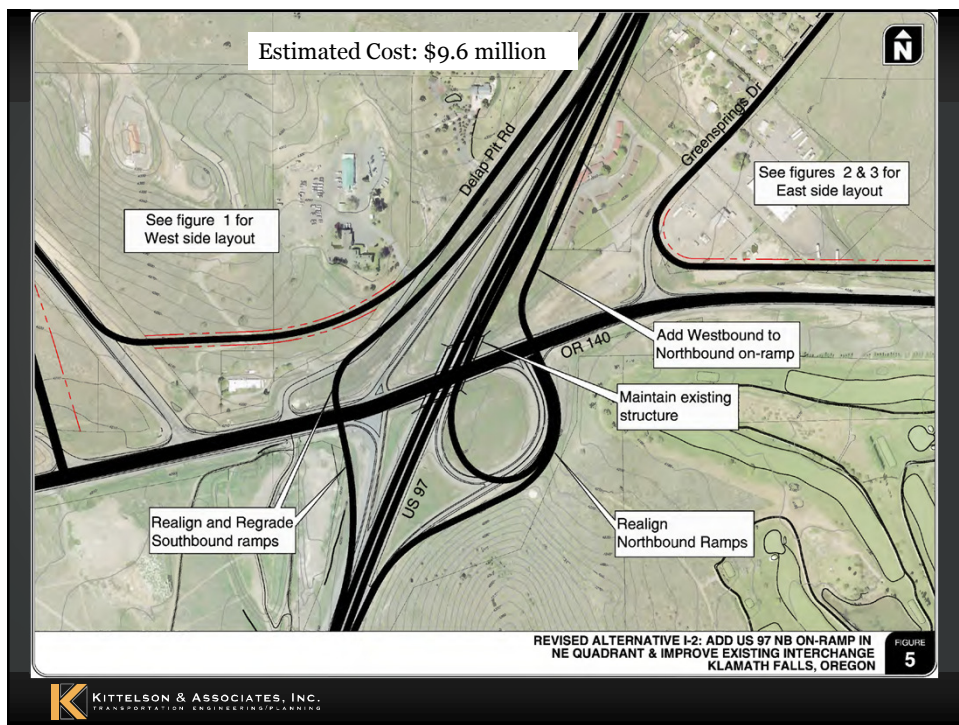
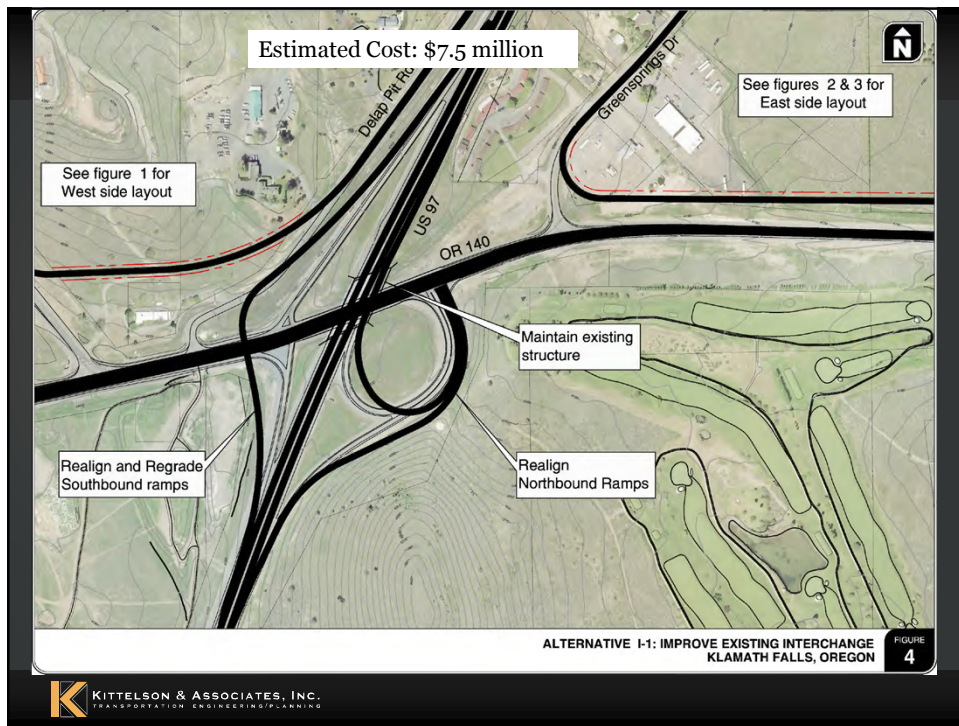


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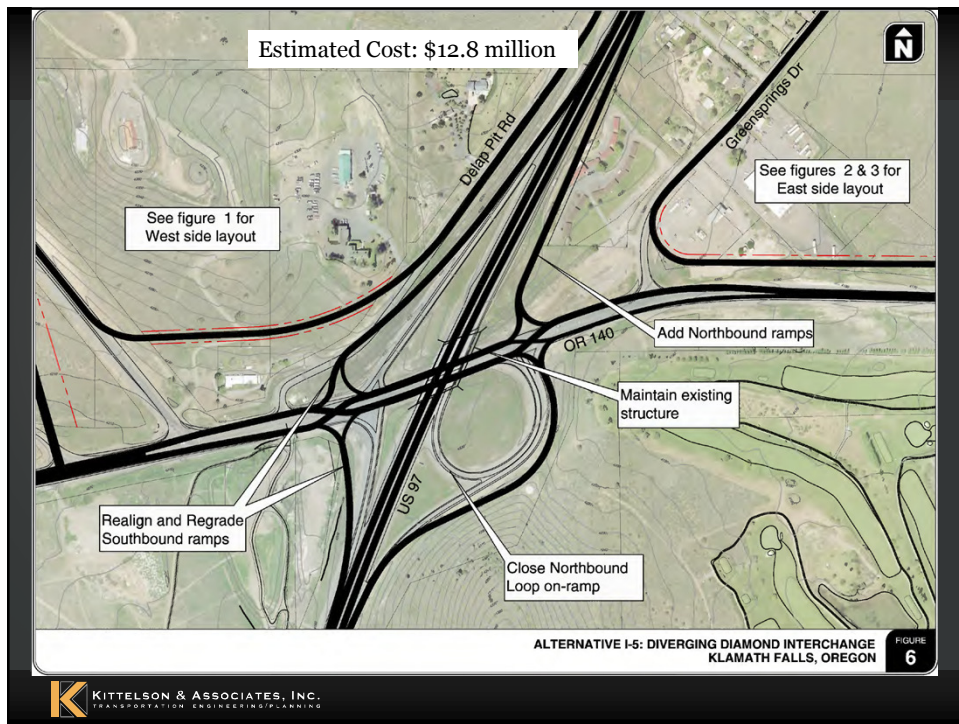




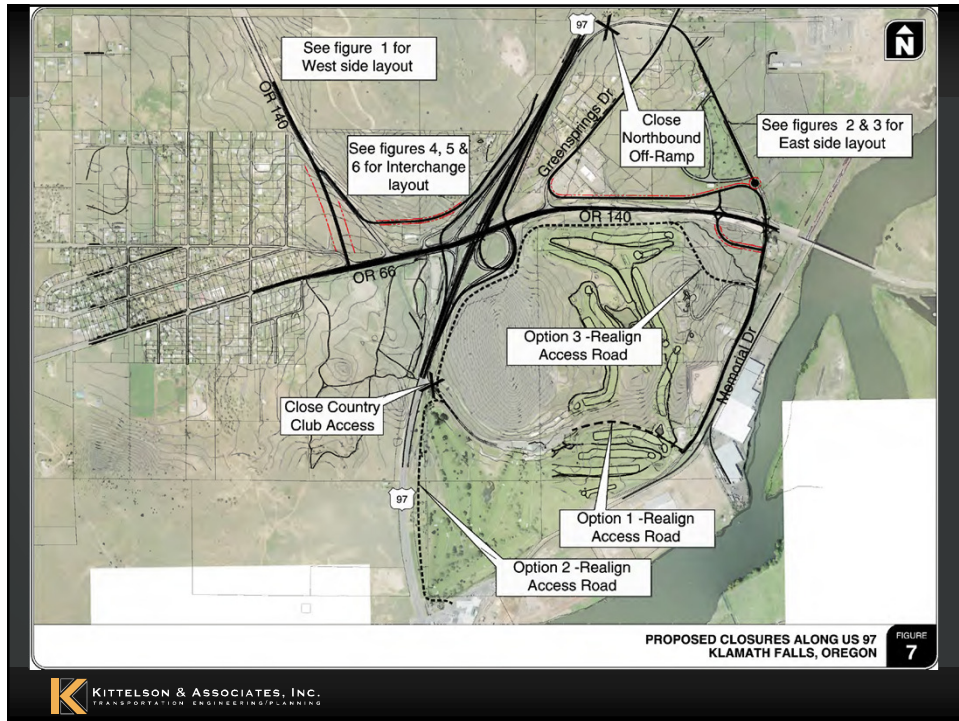
# Refined Interchange Alternatives





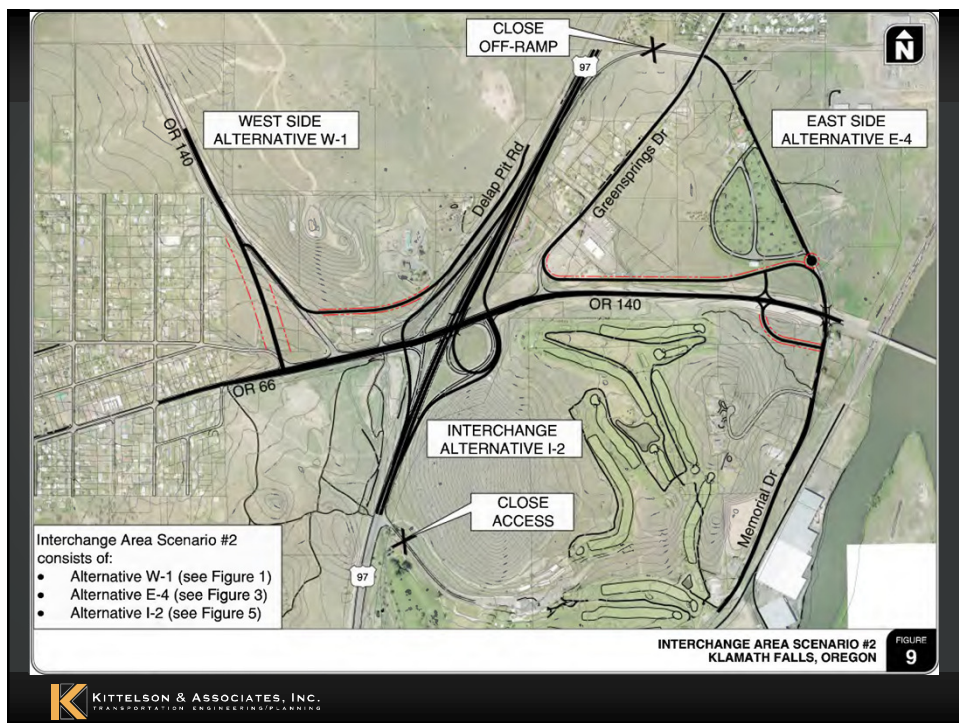
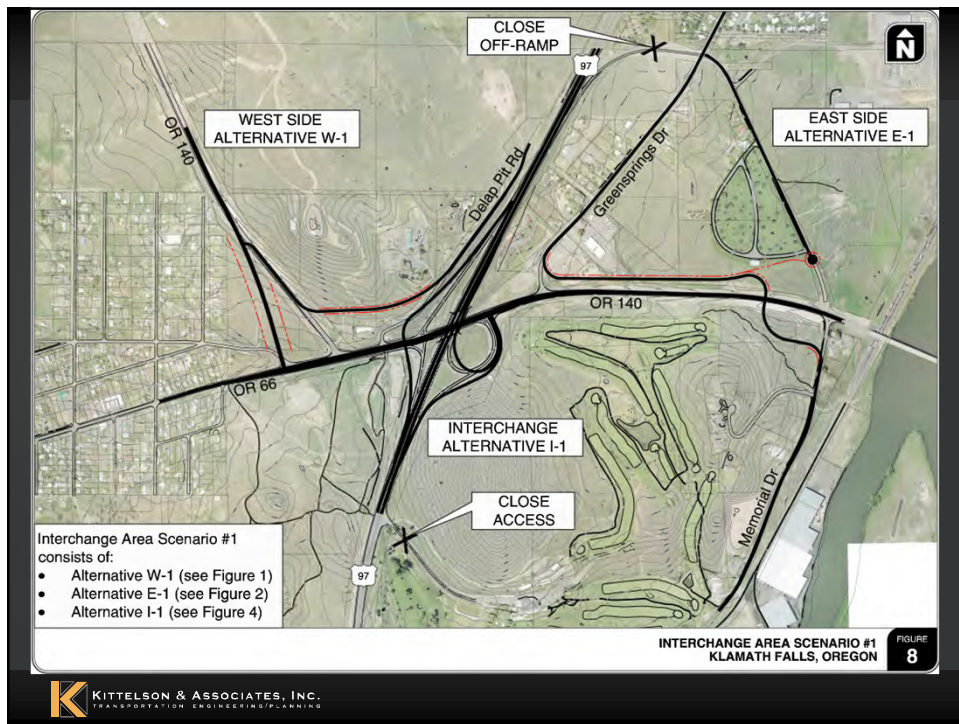


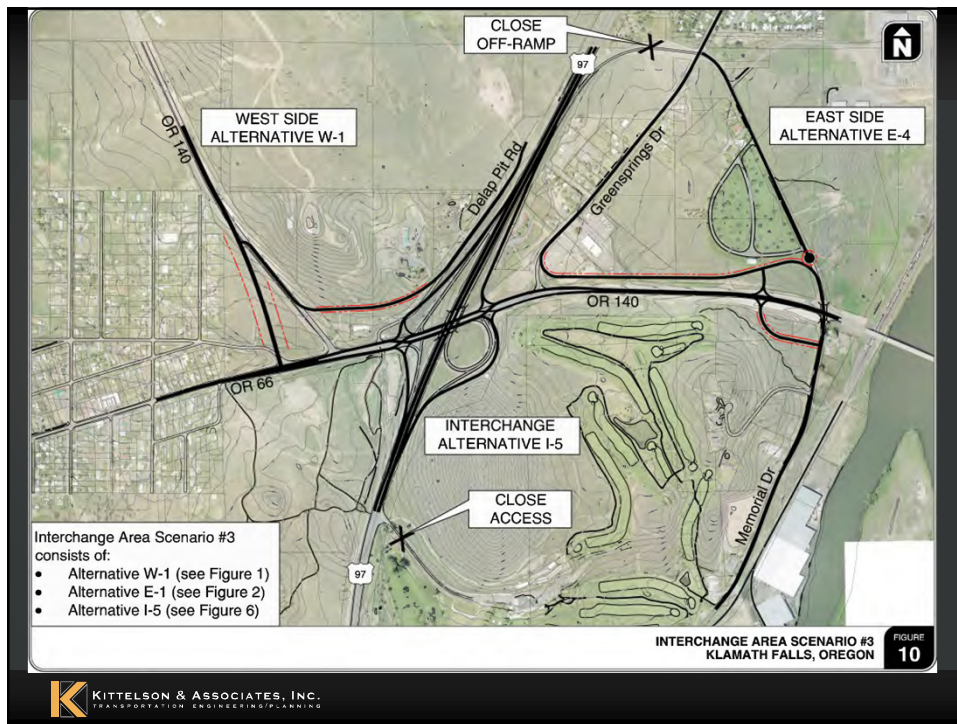
# Proposed US 97 Closures



## Combined Scenarios







## Intersection Control

- Several intersections would likely require capacity improvements in the future
- Likely options include:
  - Signalized Intersections
  - Roundabouts
- Both can work operationally

## Intersection Control Summary

Intersection	Signalized Control		Roundabout Control		Comments
	Delay/LOS	v/c	Delay/LOS	v/c	
<b>8. OR 140/OR 66</b>	12.4/B (Overall)	0.71 (Overall)	16.2/C (East leg)	0.75 (East leg)	Signal: Dedicated WB right-turn lane Roundabout: Two through lanes east/west
<b>10. US 97 SB Ramps/OR 140</b>	14.6/B (Overall)	0.67 (Overall)	10.2/B (West leg)	0.48 (West leg)	Signal: Carry additional westbound lane to OR 140/OR 66 Roundabout: Two through lanes east/west Would require channelized SB right-turn lane.
<b>11. US 97 NB Ramps/OR 140</b>	31.5/D (south leg)	0.31 (south leg)	10.5/B (East leg)	0.54 (East leg)	Signal: Would not require signalization Roundabout: Two through lanes westbound
<b>13 Greensprings Drive/Memorial Drive/OR 140</b>	8.2/A (Overall)	0.73 (Overall)	9.4/A (East leg)	0.50 (East leg)	Signal: Combined intersection. Would likely require dedicated left-turn lanes on mainline, at a minimum. Roundabout: Two through lanes westbound

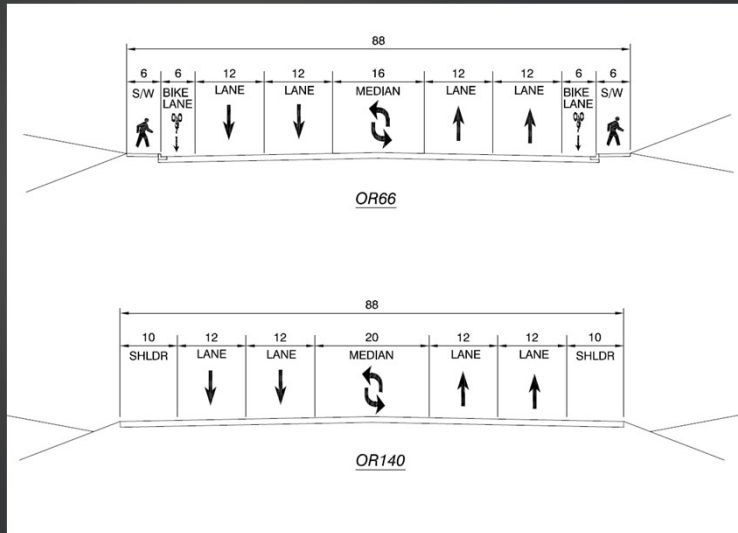
## Intersection Control

### ➤ Intersection control can affect concept details

- Signals:
  - Require turn lanes
  - Signal coordination along corridor
  - Approaching the first signal from a high-speed environment (rural) needs additional cross sectional treatments to slow traffic
- Roundabouts:
  - Narrow cross section
  - More impact at intersections
  - Allow intersections and/or driveways between roundabouts to be converted to right-in/right-out with U-turns at roundabouts

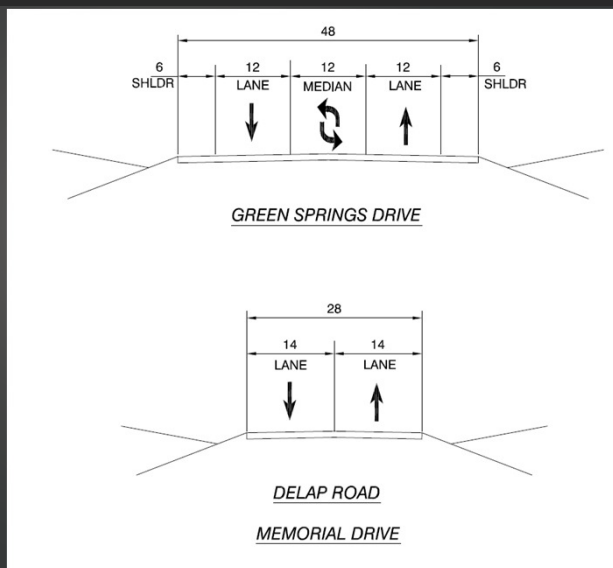


## Cross Sections (1)



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## Cross Sections (2)

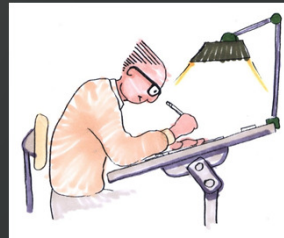


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## Next Steps

- Development of a Draft Interchange Area Management Plan (IAMP)
- Will develop by September 2012
- Public Workshop Tonight!
  - 6:00-8:00 p.m.



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## Questions/Comments?



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