I-5 Flood Protection

Overview of Alternative Projects

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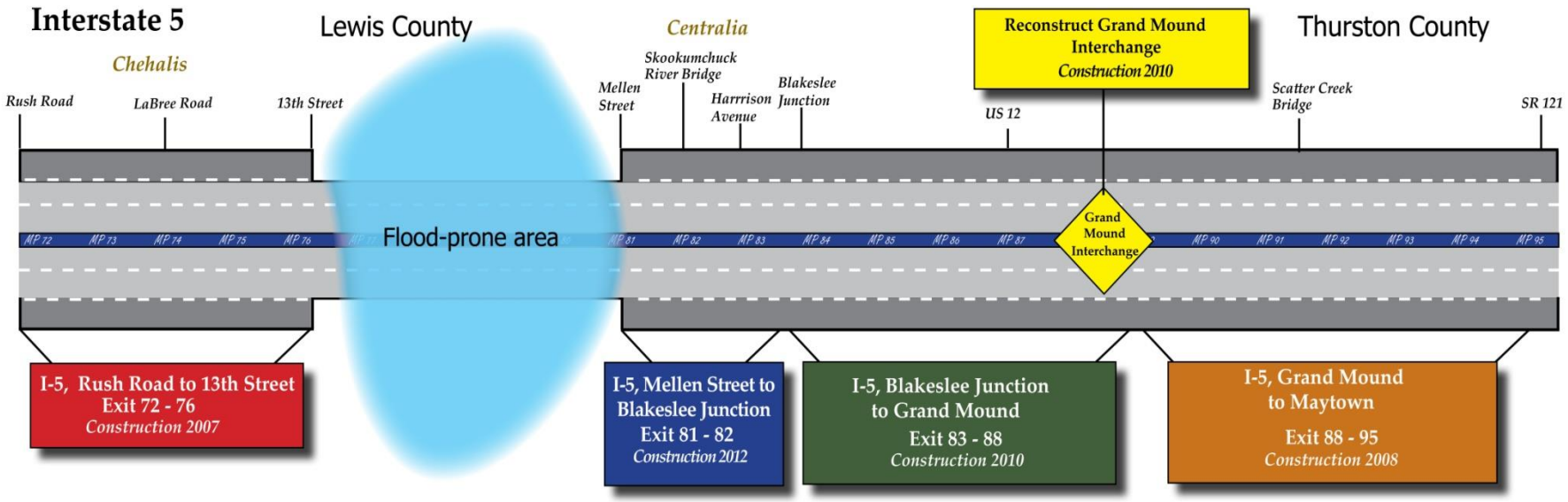
Conceptual Alternatives to Protect I-5
Including protecting Airport

1. Protect I-5 with walls and levees
2. Raise & widen I-5 using fill material
3. Construct I-5 express lanes
4. Construct I-5 temporary by-pass lanes
5. Raise I-5 using a viaduct (long bridge with piers)
6. Relocate I-5 outside flood area

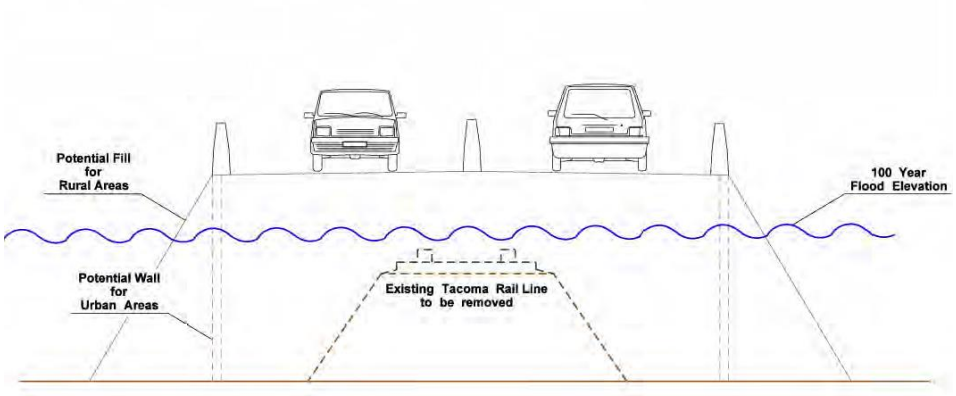
Overview of I-5 improvements

Funded Projects

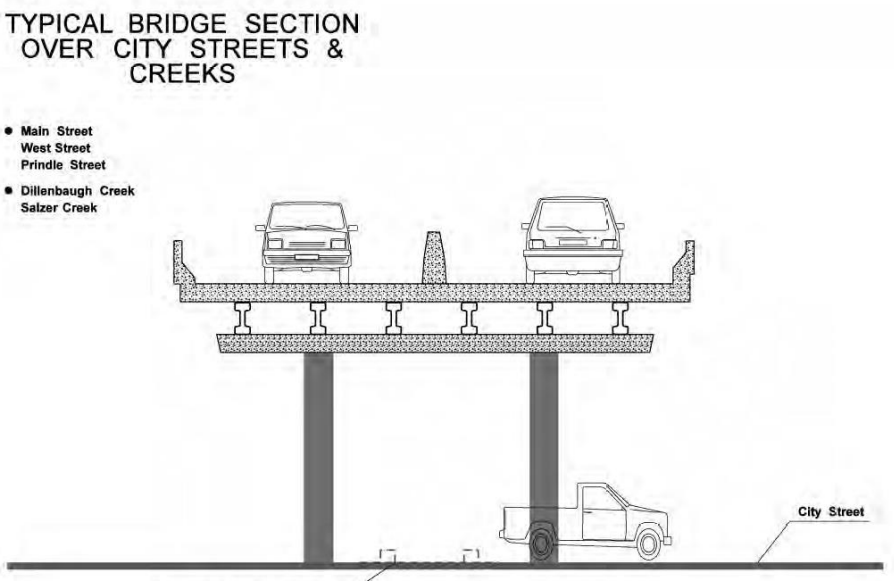


Alt. 3 Express Lanes in Twin Cities

Alt. 3 Express Lanes



Roadway on fill & bridge cross sections



Alt. 3 Express Lanes in Twin Cities

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Alt. 4 Temporary Bypass in Twin Cities

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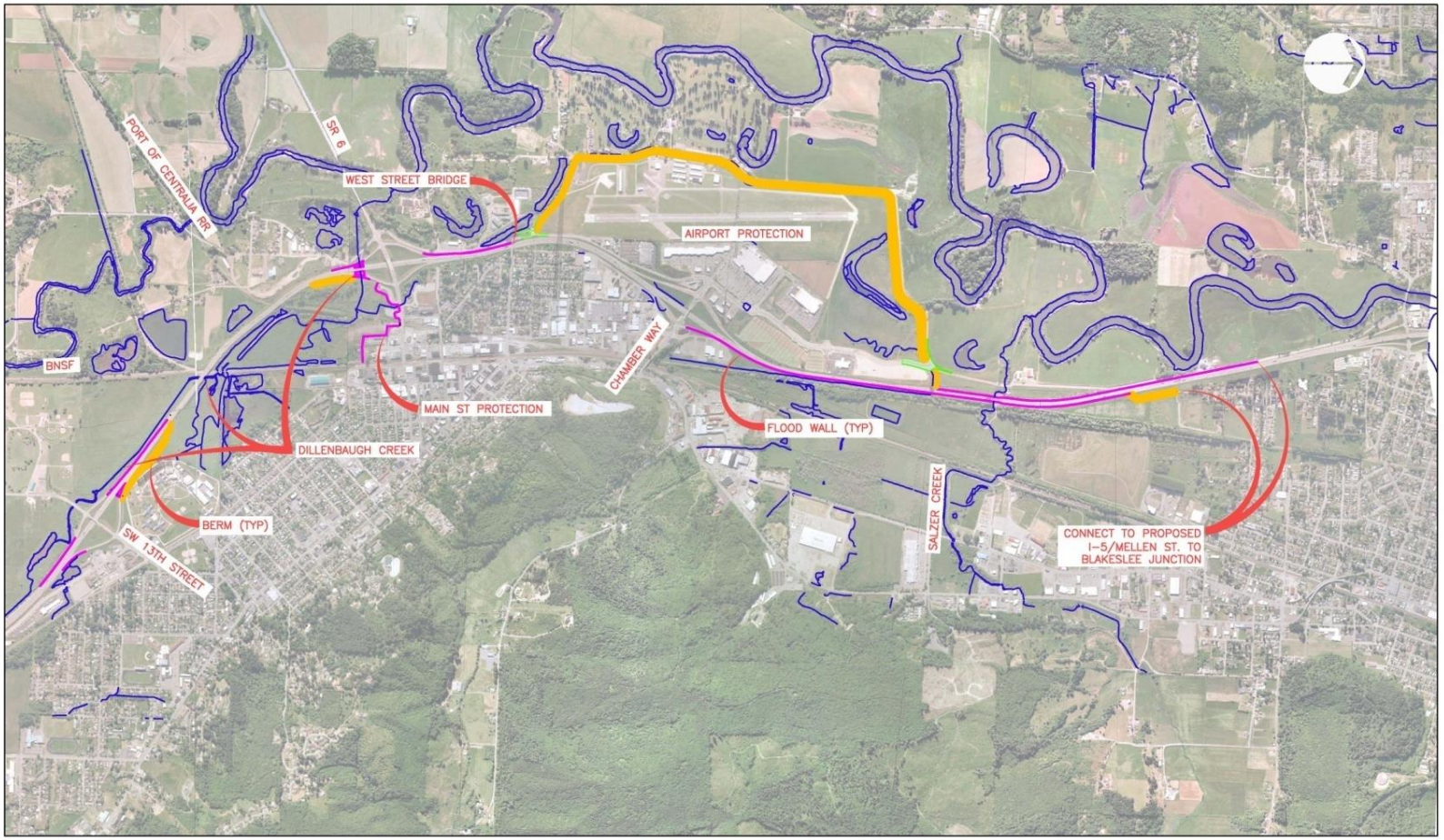
Alt. 5 I-5 Viaduct

Alt. 6 Relocate I-5 Outside Flood Plain

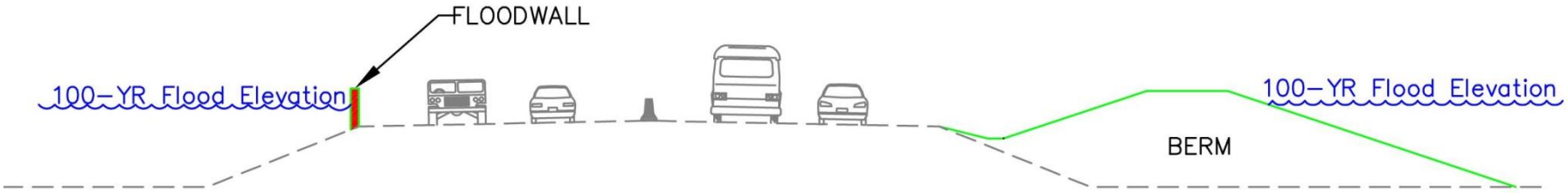
Alt 1. Protect I-5 with flood walls and levees



[Hyperlink to Exhibit]

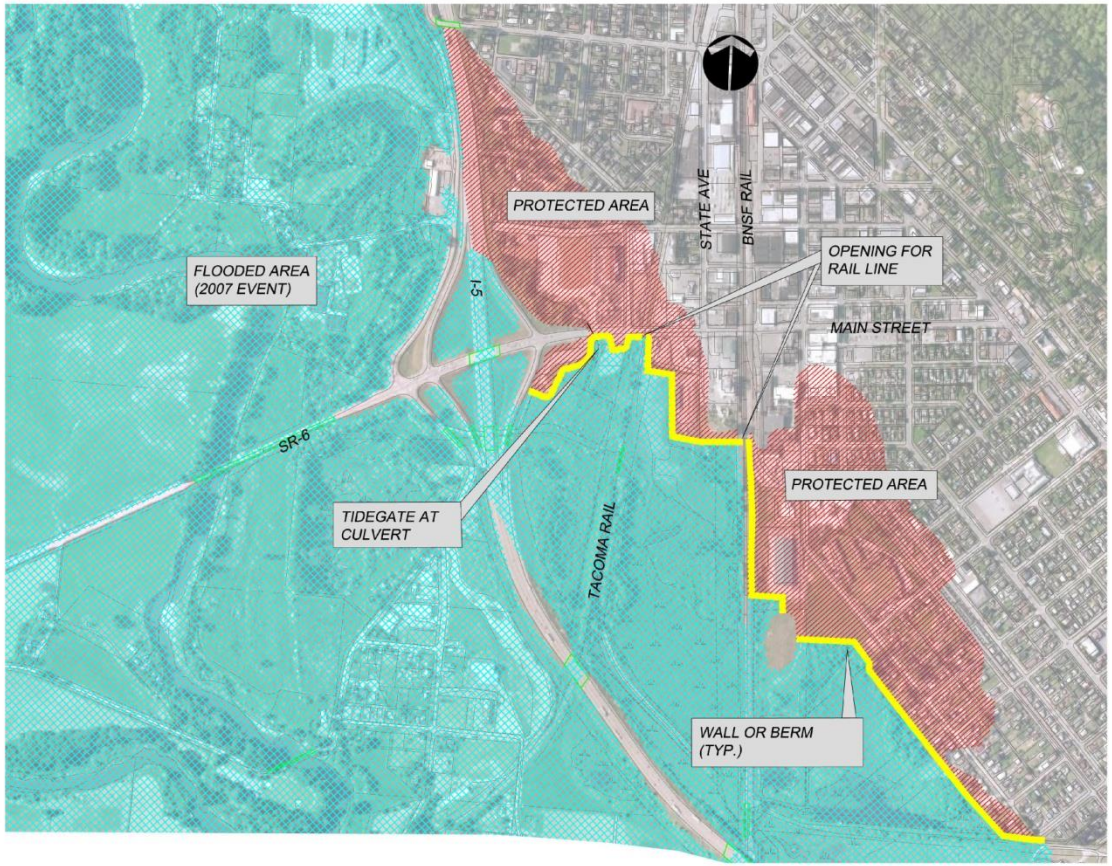
Alt 1. Protect I-5 with flood walls and levees
Approach

- Design Concept for Walls
  - Install at edge of pavement
  - Use to avoid impacts
- Design Concept for Berms
  - Use where adjacent ground is not too high
  - Use to develop stormwater treatment areas



Alt 1. Protect I-5 with flood walls and levees

Wall or levee south of Main Street



Hyperlink to Exhibit

Alt 1. Protect I-5 with flood walls and levees

Options Evaluated for Specific Areas

- Dillenbaugh Creek Options
  - Attach Walls to Bridge
  - Install Culvert Under Bridge
  - Raise Bridges
  - Realign Dillenbaugh Creek

- Selected Culvert Option for Cost Estimate

I-5 crossing of Dillenbaugh Creek

- Salzer Creek Options
  - Attach Walls to Bridge
  - Install Culvert Under Bridge
  - Raise Bridges

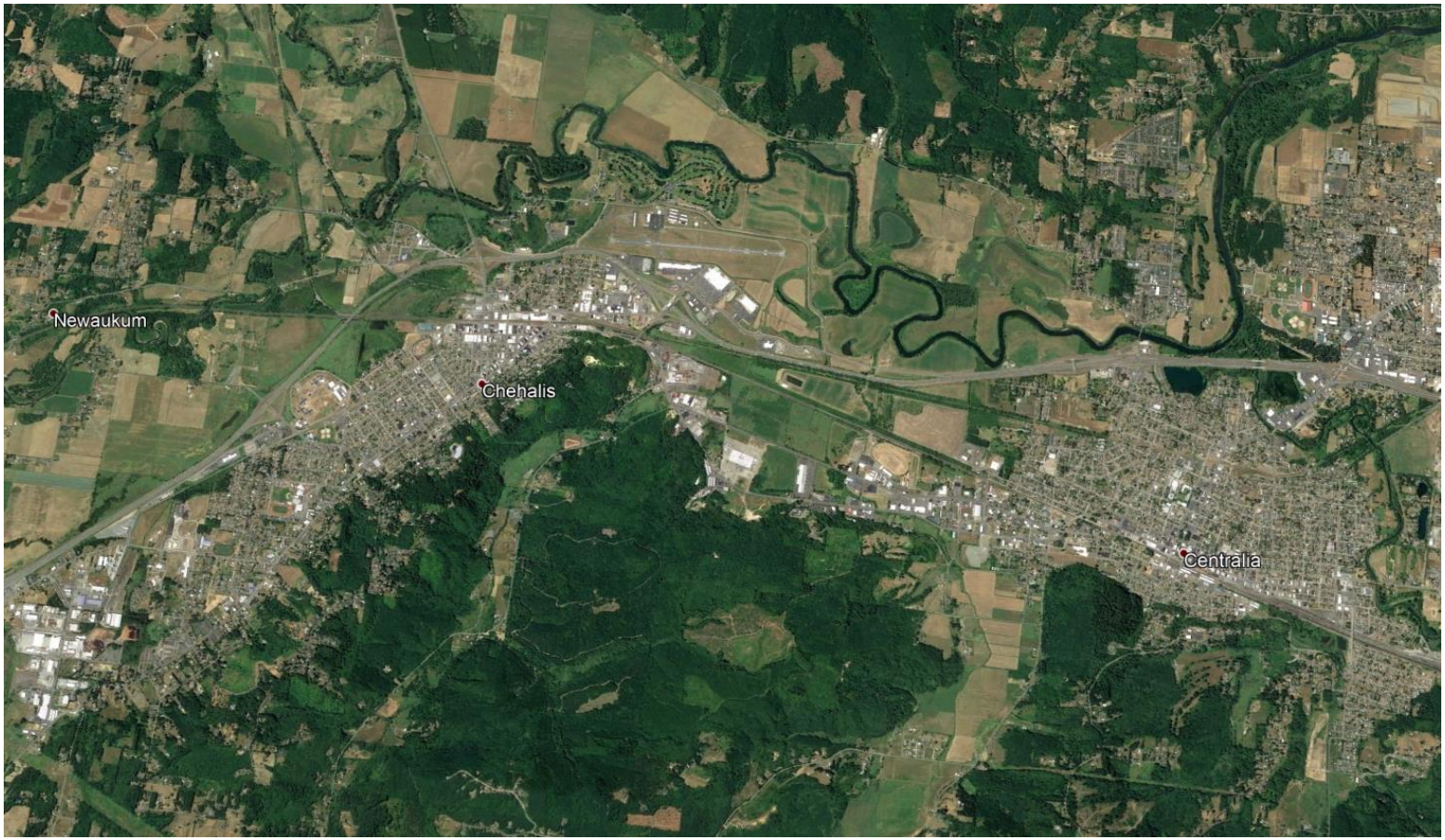
- Selected Culvert Option for Cost Estimate

I-5 Crossing of Salzer Creek

Alt. 1- Challenges of existing bridges

Alt 1. Protect I-5 with flood walls and levees

Mitigation concepts



Alt. 1- Magnitude of climate change impacts requires reassessment of alternatives

Alt. 2 Raise and Widen I-5

Side by Side Project Comparisons

Table 7: Side-by-side Project Comparison of Alternatives

Alternative	Impacts to Buildings**				Protect Airport & SW Chehalis	Ability to Meet Future I-5 Capacity Needs	Cost of Alternative *(A)*	Cost of Future I-5 Widening After Alternative is Constructed *(B)*	Total Cost of Alternative Plus Cost to Meet Future I-5 Capacity Needs *(C)* *A + B = C*
	100-year Flood Event		2007 Flood Event						
	Positive	*Negative*	*Positive*	*Negative*					
1. I-5 Walls and Levees, Raise Airport Levee, New Chehalis Levee	510	140	1030	140	Y	Future widening required. Allows for widening.	$80 to 100 Million	$225 to 330 Million	$305 to 430 Million
2. I-5 Raise and Widen Only	430	240	840	300	N*	Provides widening of I-5.	$450 to 550 Million	$0	$450 to 550 Million
3. I-5 Express Lanes	390	180	890	170	N*	Provides capacity, future widening unnecessary.	$120 to 150 Million****	$0	$120 to 150 Million
4. I-5 Temporary Bypass	400	150	900	170	N*	Future widening required. Allows for widening.	$70 to 90 Million****	$250 to 350 Million	$320 to 440 Million
5. I-5 Viaduct	***	***	***	***	N*	Replaces I-5 with new facility with sufficient capacity.	Greater than $1.5 Billion	$0	Greater than $1.5 Billion
6. I-5 Relocation	***	***	***	***	N*	Replaces I-5 with new facility with sufficient capacity.	Greater than $2 Billion	$0	Greater than $2 Billion

* Chehalis - Centralia Airport Levee or new SW Chehalis Levee could be added to this alternative or constructed as an independent project.

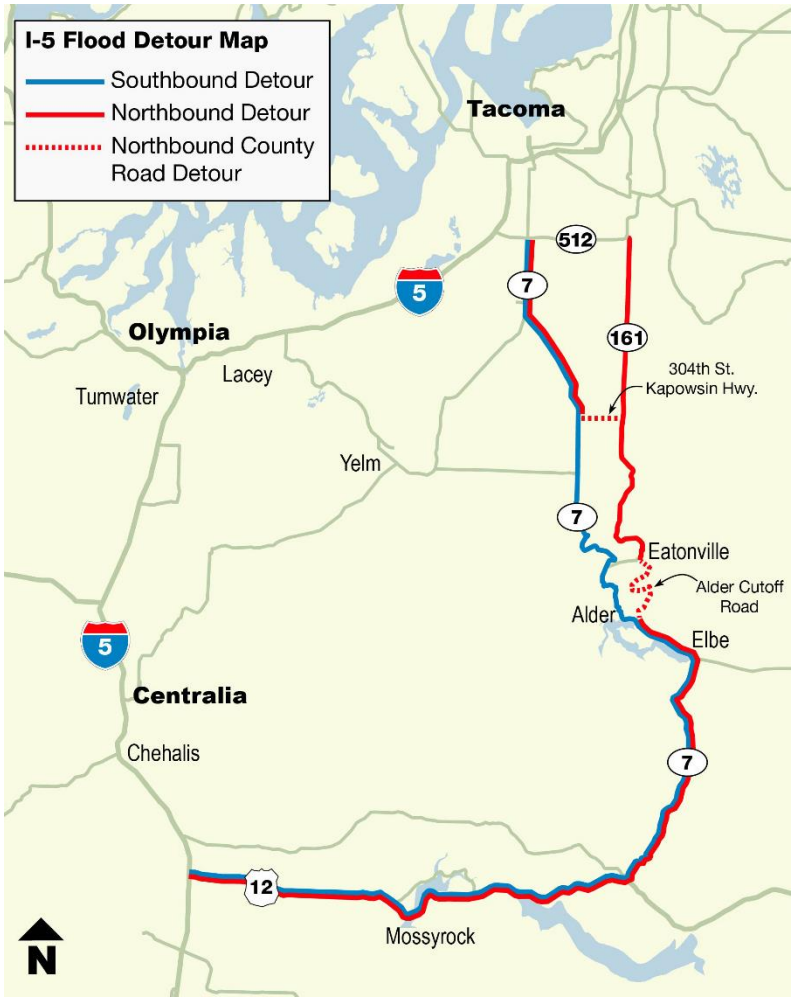
** The positive or negative '*Impacts to Buildings*' indicates the total predicted number of buildings experiencing decreased (positive) or increased (negative) flood elevations resulting from the alternative.

*** '*Impacts to Buildings*' analysis was not conducted as this Alternative was deemed not viable for further analysis.

**** Estimates do not include the costs to acquire the Tacoma Rail Right of Way

Flood Detour for Freight via US 12 & SR 7

- I-5 Closed for 20 miles @ Exits 68 & 88
- Freight and local access only
- Freight prioritized via on-line permit system
- Not operational until day 2 of closure
- National Guard to monitor detour
- 50 trucks/hr/direction
- 25% of I-5 freight volume

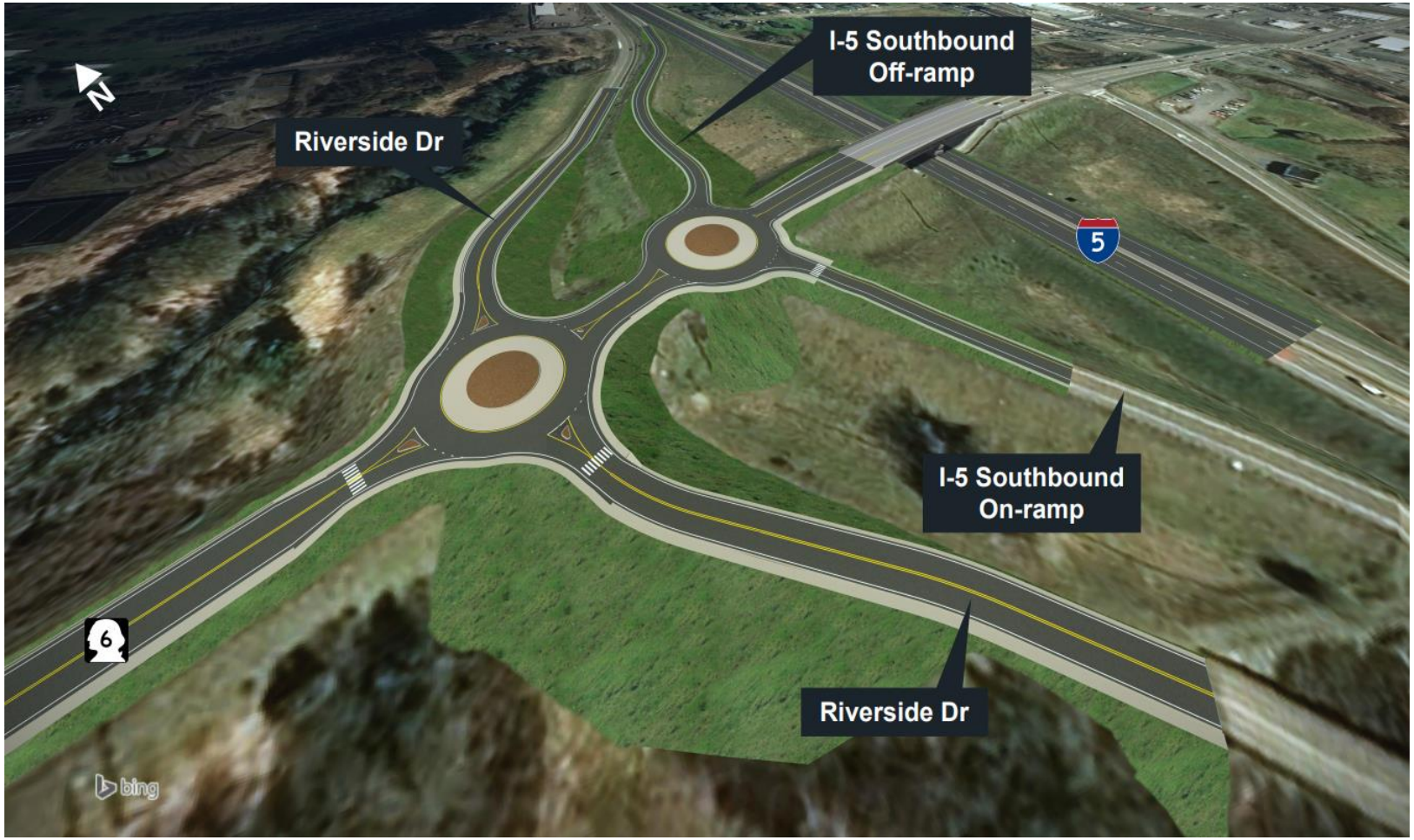


What's has WSDOT about flooding?

Practical Solutions

Another Practical Solution for Flooding

Practical Solutions for Congestion Relief



What's next for WSDOT?

If a dam is build, we will apply our practical solutions approach.

If a dam is not built, we will apply our practical solutions approach.

Questions?