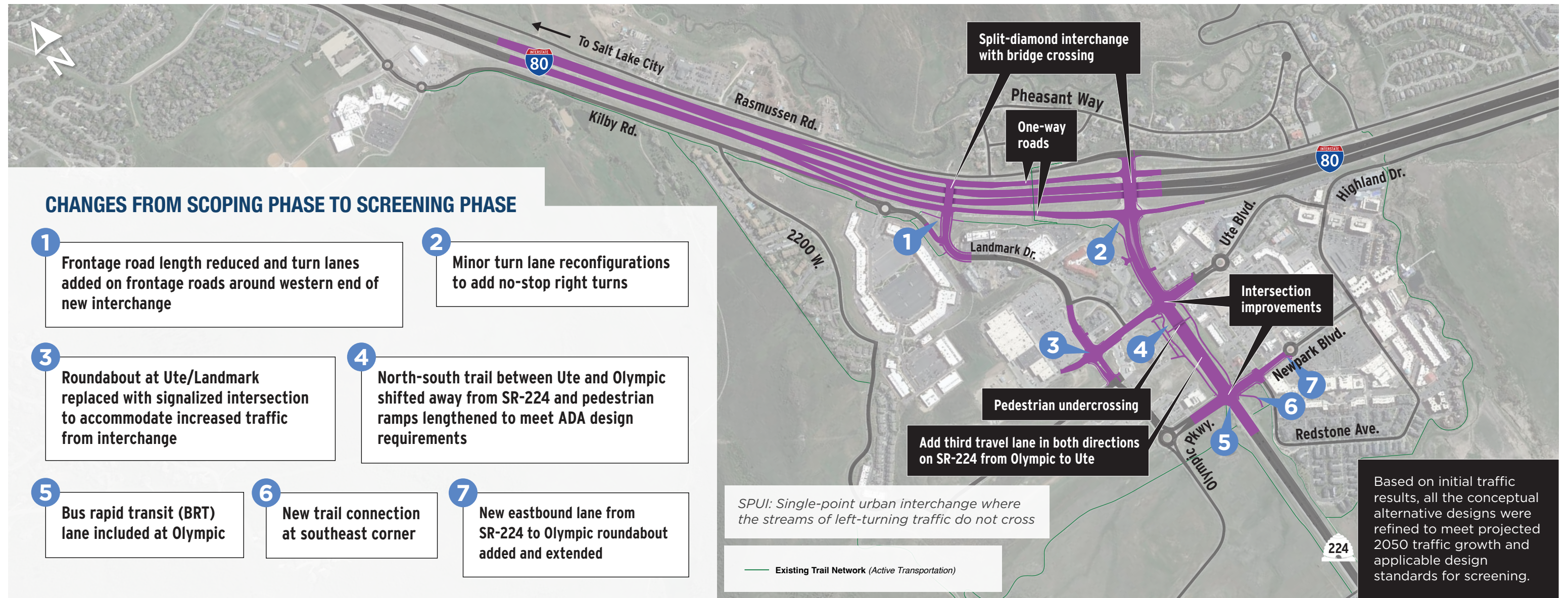


# ALTERNATIVE A (REFINED)

## SPLIT-DIAMOND INTERCHANGE WITH INTERSECTION IMPROVEMENTS



### DESCRIPTION














This alternative consists of a split-diamond interchange configuration on I-80 with intersection and pedestrian improvements on SR-224. The existing single-point urban interchange (SPUI) at Kimball Junction would be converted into a tight-diamond configuration (traffic signals at each off-ramp), and the interchange traffic would be split between the existing location at SR-224 and a new intersection with a bridge crossing I-80 to the west of SR-224.

The split-diamond interchange would disperse traffic between the new access and SR-224 by providing easier access to residential and commercial locations in the Kimball Junction area. One-way roads for both eastbound and westbound directions would connect the two intersections and tie into the on- and off-ramps for I-80. The shared-use path on the south side of I-80 would continue in the future for pedestrian comfort.

A pedestrian undercrossing at Ute Boulevard and intersection improvements along SR-224 are proposed to move all users more efficiently through the area. Intersection improvements include adding northbound and southbound through lanes on SR-224 between Olympic Parkway and I-80.

### BENEFITS

- ✓ Provides new access points, better traffic dispersion, and direct access into the Kimball Junction area on the south side of I-80
- ✓ Pedestrian undercrossing would increase connectivity and comfort
- ✓ Improves travel time and mobility
- ✓ Minimize queuing onto I-80

Criteria	Measure	Data	What does this mean to me?	Existing Conditions (2022)	2050 No-Action Alternative	Alternative A (Refined) Split-Diamond Interchange With Intersection Improvements	Evaluation Considerations
<b>Level 3 - Purpose &amp; Need</b>							
Improving operations & travel times on SR-224 from I-80 interchange through Olympic Parkway	Provides reliable through-traffic travel time on SR-224 during the AM and PM peak hour? (yes/no)	 Travel time (average speed in mph)	I'm not stuck in slow moving traffic	AM SB - 6:15 (17) PM NB - 7:45 (13)	AM SB - 11:30 (9) PM NB - 9:30 (11)	Yes: AM SB - 4:30 (25) PM NB - 4:15 (23)	- Substantial improvement over No-Action and Existing conditions - Least efficient among build alternatives
	Meets a level of service of LOS D for as many intersections as possible.	 Number of intersections at LOS E or F	I'm not sitting through multiple light cycles all the time	AM - 1 PM - 2	AM - 1 PM - 5	AM - 1 PM - 0	
Improving safety by eliminating vehicle queues on I-80 off-ramps	Is the percent served improved during the peak hour? (yes/no)	 Percent served	I can travel through the area	99%	86%	Yes - 100%	
	Are the off-ramp vehicle queue lengths eliminated on I-80 mainline through lanes? (yes/no)	 Length of vehicle queue (feet)	Traffic isn't backed up on the I-80 mainline	No: 2,600	No: >5,000	Yes: 600	
Maintaining or improving transit travel times through evaluation area	Does the alternative maintain or improve the SR-224 BRT transit travel times through the evaluation area? (yes/no)	 Total BRT Travel Time (NB+SB, AM+PM) Savings from No-Action (min:sec)	Public transportation will work more efficiently	N/A	16:30	14:00 Yes: (- 2:30)	- Most transit time savings
Improving pedestrian & bicyclist mobility and accessibility through evaluation area	Does the level of traffic stress improve in the vicinity of SR-224? (yes/no)	 Level of Traffic Stress (LTS) (1-4 scale, L1 - low stress, L4 - high stress)	Pedestrians and cyclists can travel better in the area	Yes: Trail - L1 Intersections - LTS3	Yes: Trail - L1 Intersections - LTS3	Yes: Ped Undercrossing improves Ute crossing to LTS1	
	Do the walk times improve for key origin-destination pairs? (yes/no)	 Total Walk Time Savings from No-Action for 4 O/D Pairs (min:sec)	Pedestrians and cyclists have higher level of comfort	53:30	54:00	52:30 Yes: (- 1:30)	- Most pedestrian walk time savings
<b>Level 4 Screening - Cost and Impacts to the Built and Natural Environment</b>							
Natural Environment Impacts	Threatened and Endangered Species	 Acres	How will this impact protected species in the area?	-	-	0	
	Wetlands & Waters of the United States	 Acres and types of aquatic resources (ditches, open water, wetlands, perennial streams)	How will this impact federally protected wetlands and waters?	-	-	0.131	- Medium wetland impact
	Section 4(f) resources	 Number and type of Section 4(f) use	Lands from a historic site or protected public resources	-	-	0	
Built Environment Impacts	Relocations	 Number of potential residential or business relocations	Potential property impacts to community members	-	-	0	- Large footprint outside of existing SR-224 corridor and parking impacts
	Land Use	 Compatibility with current land use plans	Does it meet our community land use goals?	-	-	Yes	
Cost	Construction Cost Estimate	 \$2025 in millions	What is the expense to the statewide community?	-	-	\$108M	- Medium/high cost - Medium construction complexity