

APPENDIX B

Agency Scoping Meeting

Meeting Notes

Agency Scoping Meeting

April 3, 2019 1:00-2:00PM

1. Attendance and Location

a. List of attendees:

Brandon Weston, UDOT	Jesse Dean, CWC
John Thomas, UDOT	Lindsey Nielsen, CWC
Carissa Watanabe, UDOT	Ralph Becker, CWC
Lance Kovel, USDA Forest Service	Jay Kinghorn, UT Office of Tourism
Marshall Alford, USDA Forest Service	Joel Karmazyn, DEQ AQ
Autumn Hu, UTA	Carly Castle, SLCDPU
Vince Izzo, HDR	Annalee Munsey, MWDSL&S
Frank Pisani, HDR	Helen Peters, SLCO
Carol Snead, HDR	Jared Stewart, SLCO
	Cory Wells, Murray City

b. Location: HDR Conference Room - 2825 E Cottonwood Pkwy #200, Cottonwood Heights, Utah 84121

2. Introductions

Vince Izzo welcomed the participants to the meeting and asked all to introduce themselves.

3. Recent Developments in Project Scope

Vince began the meeting with new information related to the scope of the EIS. Since the revised NOI was issued and March 5, 2019, UDOT reviewed the recently available 2019-2050 Regional Transportation Plan (RTP), released in draft form by the Wasatch Front Regional Council. The 2019-2050 RTP includes the addition of a 3rd lane in Little Cottonwood Canyon as a Phase 3 project; i.e., it would be funded and constructed in 2041-2050. With this new information, UDOT will be including roadway capacity improvements in the Little Cottonwood Canyon EIS in order to evaluate the environmental impacts of proposed future transportation solutions. The increased capacity would support more transit and reduce congestion in future years. The Federal Highway Administration on behalf of UDOT will issue a revised NOI to include UDOT's intent to address increased roadway capacity in the Little Cottonwood Canyon EIS and extend the scoping period an additional 30 days from the release of the new NOI, which will occur in April or May.

Question: Will the schedule be affected by this revision?

Answer: The scoping period will be extended but the overall schedule for the EIS will not change.

4. Meeting Presentation: Little Cottonwood Canyon EIS

Vince continued the meeting with the presentation of the NEPA process, agency involvement, study area, and project team, all of which are the same as identified in the previous agency scoping meeting. He also presented information related to alternatives, screening, and issues that include greater focus on some of the project elements (parking, avalanche mitigation, and improvements on Wasatch Boulevard. Agencies are invited to revisit the Environmental Checklist to identify whether additional issues should be investigated.

5. Meeting Presentation: Intersection Improvements In Little Cottonwood Canyon

UDOT has identified several near-term projects that would improve traffic flow in Little Cottonwood Canyon and can be developed without review in the EIS. Vince described the Y Intersection at the base of the canyon and High-Tee programs at the ski areas. These projects will be constructed in 2019 and 2020.

6. Meeting Presentation: Cottonwood Canyons Transportation Action Plan

Frank Pisani presented the purpose of the Transportation Action Plan, its link to future NEPA review, and products that will be delivered in the process. The TAP will look at different modes of travel, tolling options, and other improvements to manage demand. Frank stressed the importance of agency involvement early and often in the planning process to facilitate decisions when projects are moved into the NEPA process.

Question: Is the TAP limited to transportation only, or can the plan consider trailhead improvements?

Answer: The TAP can look outside of strict transportation improvements, with some connected actions such as restrooms at trailheads.

Question: How do you reconcile looking at the 3rd lane in the EIS with the possibility of other modes (gondola, train) being considered in the TAP.

Answer: The TAP will be unconstrained by the planning horizon of 2050. The overlap of the two documents is still in review.

Question: How are you treating connected actions (EIS v. TAP)?

Answer: the EIS will focus on project elements that have independent utility and are limited to the SR-210 study corridor.

7. Review of Maps/Scroll Plots to be Presented at Public Meeting April 9, 2019

Vince presented the table-length maps of the various project elements for Little Cottonwood Canyon EIS and invited agency comment on preliminary alternatives. Meeting attendees engaged in one-on-one discussions with the project team and the meeting concluded shortly after 2:00PM.

These minutes were prepared by Carol Snead.

Little Cottonwood Canyon EIS and
Big and Little Cottonwood Canyons
Transportation Action Plan

Agency Scoping Meeting

April 3, 2019

MEETING PURPOSE

- Review and discuss:
 - Little Cottonwood Canyon EIS with revised scope
 - Short-term intersection improvements in Little Cottonwood Canyon
 - Transportation Action Plan for Big and Little Cottonwood Canyons

PROJECT BACKGROUND

2018 Little Cottonwood Canyon EIS

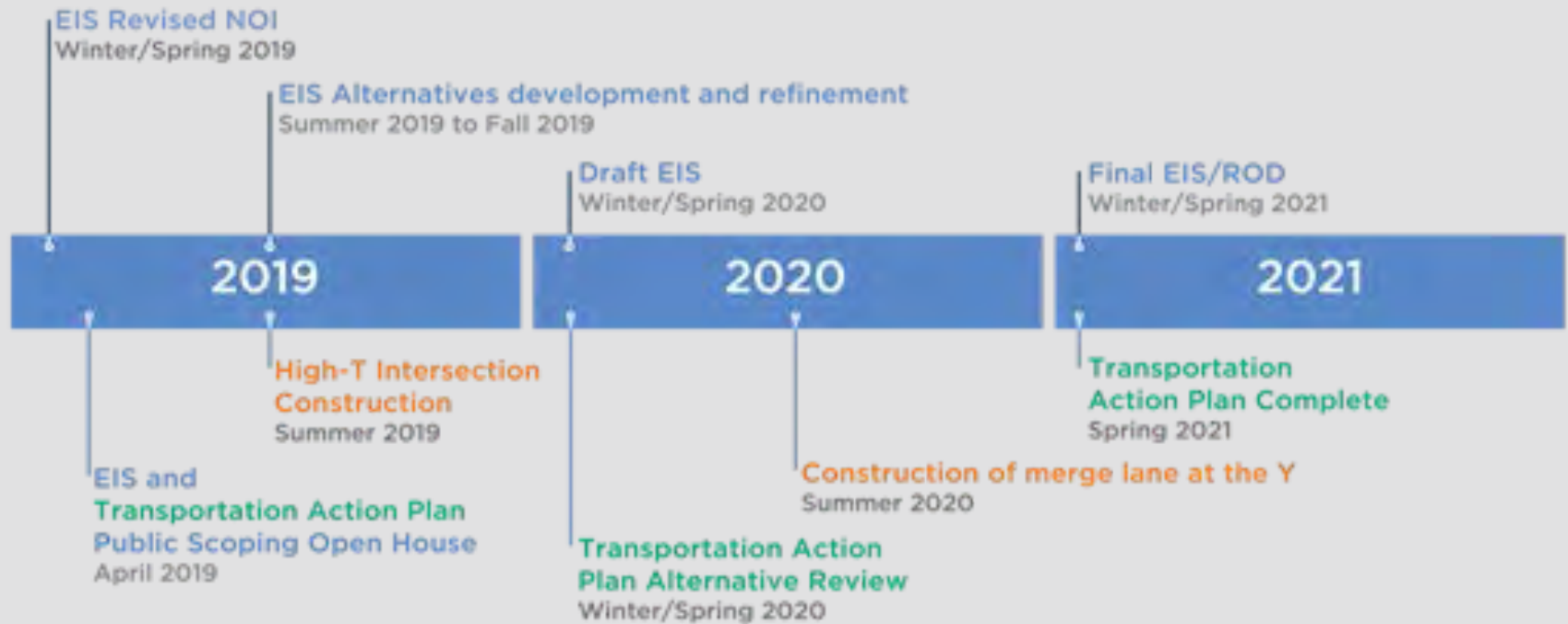
- Initial NOI and scoping in March 2018
 - Wasatch Boulevard
 - Avalanche mitigation
 - Trailhead parking
 - Key intersections
 - Overall mobility

2019 Little Cottonwood Canyon Project

- Revised NOI in March/April 2019 for EIS
 - Wasatch Boulevard
 - Avalanche mitigation
 - Trailhead parking
 - Third lane in Little Cottonwood Canyon (2019-2050 Regional Transportation Plan).
- CATEX for Short-term Projects
 - Key intersections in Little Cottonwood Canyon with independent utility
 - Construction 2019 high-tees at Alta and Snowbird
 - Construction 2020 merge lane at SR 210/SR 209.
- Transportation Action Plan – Long-Term
 - Big and Little Cottonwood Canyon equity
 - Water quality
 - Transit
 - Parking
 - Tolling
 - Pedestrian/bicycle facilities
 - Trailheads

OVERALL SCHEDULE

ANTICIPATED SCHEDULE



LITTLE COTTONWOOD CANYON EIS UPDATE



LITTLE COTTONWOOD CANYON EIS TEAM

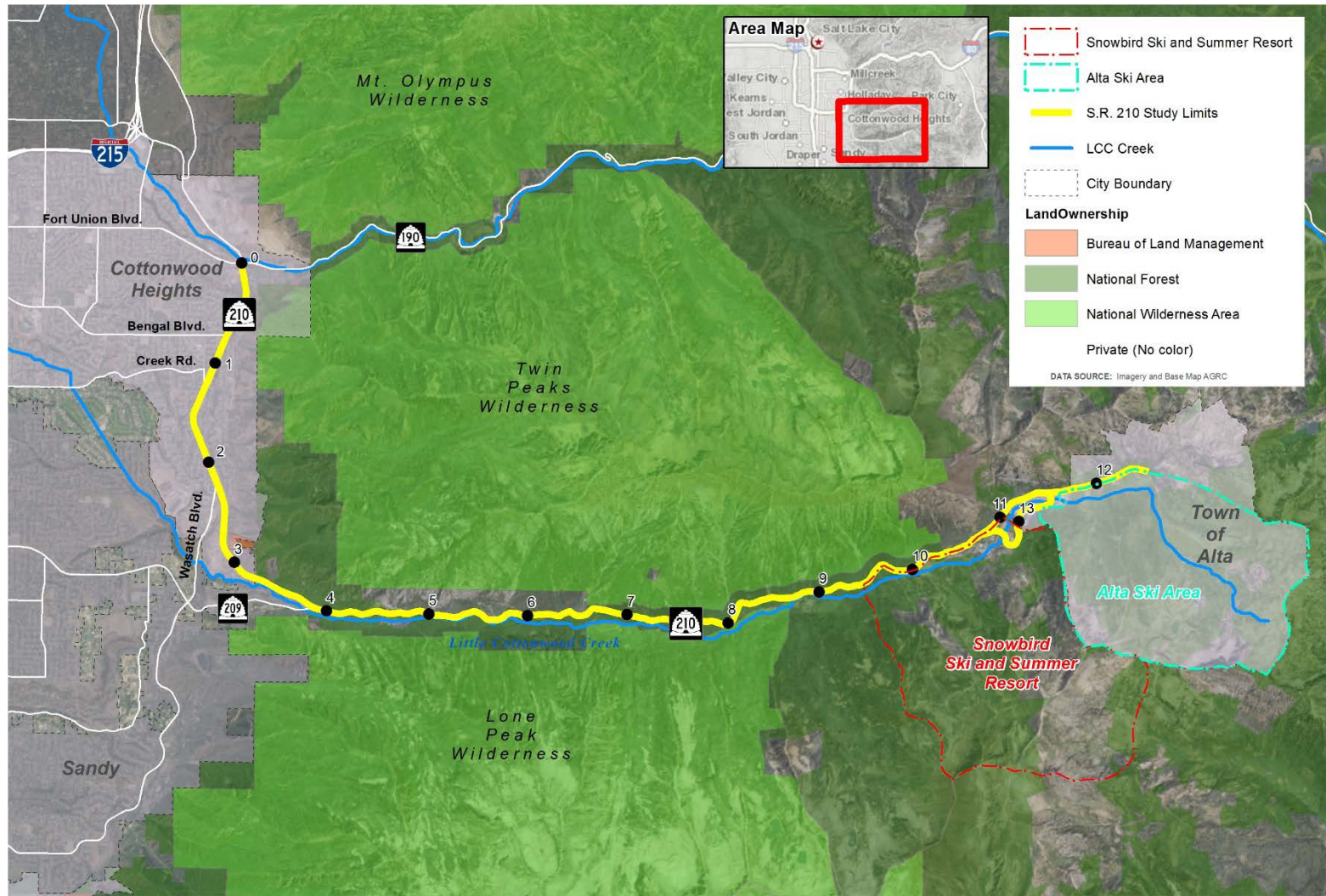
- UDOT – Lead Agency
 - Project Manager – John Thomas
 - Environmental Lead – Brandon Weston

- HDR – Lead EIS Consultant
 - Project Manager – Vince Izzo
 - NEPA Lead – Carol Snead
 - Fehr & Peers – Traffic
 - SWCA – Cultural resources, land use, and visual
 - Dynamic Avalanche Consulting – Avalanche control
 - Penna Powers – Public involvement

NEPA ASSIGNMENT

- UDOT has been assigned FHWA's NEPA responsibilities:
 - All NEPA classes of action: CEs, EAs, and EISs
 - Environmental laws, rules, and orders
 - Consultation with agencies
- Responsibilities under NEPA Assignment:
 - UDOT reviews and approves environmental documents
 - UDOT is now legally responsible and liable for all NEPA decisions
- UDOT must still comply with the same laws as before
- Increases efficiency in the environmental process

LITTLE COTTONWOOD CANYON EIS STUDY AREA



EIS DRAFT PROJECT PURPOSE

Wasatch Boulevard

- Improve the level of service (LOS) in 2050 by meeting UDOT's goal of LOS D.
- Improve safety.

Little Cottonwood Canyon

- Improve the road's reliability by substantially reducing the number of days and hours that the road is closed for avalanche mitigation and incidents.
- Improve safety by reducing the risk of avalanches to roadway users.
- Enhance roadway safety at trailhead parking areas for pedestrians and bicyclists and decrease conflicts between motorized and non-motorized transportation modes.
- Prevent roadside pavement damage caused by on-road parking at trailheads.
- Improve overall roadway mobility in Little Cottonwood Canyon by increasing roadway capacity to reduce travel time for all vehicles.

WHY IMPROVEMENTS ARE NEEDED

- Avalanches pose a risk to public and cause substantial delay when the road is closed.
- Vehicles parked on the shoulder at trailheads create an unsafe environment due to conflicts with vehicles and bicyclists/pedestrians in addition to invasive weed propagation, increased sedimentation in watershed and informal trails to the trailheads.
- Wasatch Boulevard is congested during weekday commutes and does not meet design standards.
- Increased traffic congestion and decreased mobility in winter during morning (AM) and afternoon (PM) peak travel periods related to visits to ski areas, with the greatest traffic volumes on weekends, holidays, and during and after snowstorms.

ALTERNATIVES

- No Action – Required by NEPA
- Wasatch Boulevard
 - Five-lane roadway
 - Reversible lanes
 - Roundabouts
- Avalanche Mitigation
 - Snowsheds without berms
 - Snowsheds with berms
 - Other forms of passive mitigation
- Trailhead Parking
 - Maintain current parking levels (1/4 mile)
 - Transit stops and no expansion of parking
 - Bridge
 - Lisa Falls
 - White Pine
 - Other considerations – Grit Mill and Gate Buttress
- Roadway Capacity
 - Add a third lane on S.R. 210 in Little Cottonwood Canyon

ALTERNATIVE SCREENING CRITERIA WASATCH BOULEVARD

Wasatch Boulevard Criteria

Criterion	Measure
Reduce delay and improve capacity (improve regional mobility) ^a	Achieve a level of service of LOS D on Wasatch Boulevard and intersections in 2050.
Consider the Wasatch Boulevard Master Plan Corridor Study	Meet the overall objectives identified in the master plan corridor study while addressing UDOT's safety and mobility requirements.
Improve safety	Meet UDOT's safety standards (such as lane and shoulder widths, access, and sight distance) for all roadway users including passenger and freight vehicles, cyclists, pedestrians, and recreational users.

ALTERNATIVE SCREENING CRITERIA AVALANCHE AND TRAILHEADS

Avalanche and Trailhead Parking Criteria

Criterion	Measure
<i>Avalanche Mitigation</i>	
Improve avalanche related roadway reliability and safety in 2050	<ul style="list-style-type: none">• Substantially reduce number of hours and/or days that avalanches delay users.• Substantially reduce the avalanche hazard at for roadway users.
<i>Trailhead Parking</i>	
<ul style="list-style-type: none">• Improve roadway safety by reducing conflicts• Reduce parking-related congestion	<ul style="list-style-type: none">• Improve parking at existing trailheads to support travel modes while improving safety.• Reduce traffic conflicts at existing trailhead locations.• Keep parking levels at year 2000 levels.

ALTERNATIVE SCREENING CRITERIA ROADWAY CAPACITY

Roadway Capacity Criteria

Road Way Capacity Screening Criteria	Measure
Improve overall mobility and reduce congestion in 2050	<ul style="list-style-type: none">• Reduce travel time over 2050 No-Build congested conditions• Support transit use

ENVIRONMENTAL CHECKLIST

2018 Agency Scoping Concerns

- Sensitive biological resources
- Wildlife corridors
- Wetland/riparian areas
- Floodplains
- Visual resources
- Cultural resources
- Water quality/watershed
- Environmental justice
- Utilities
- Hazardous materials
- Noise
- Air quality
- Section 4(f)/6(f)

Any new concerns?

Scoping Environmental Review Checklist

PROJECT INFORMATION

Project Name: Little Cottonwood Canyon EIS

Project Location: Salt Lake City/Cottonwood Heights

Requirement Potentially Applicable

Comments

For additional information and potential participating or cooperating agencies for each of the listed requirements see Attachment A. This checklist is a requirement of the FAST Act, codified as 49 USC 315.

Requirement	No	Yes	Potentially Applicable	Comments
1. AIR QUALITY				
1.1 Conformity Determination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. WATER RESOURCES AND WETLANDS				
2.1 Section 401 State Certification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.2 Section 402 UFGES Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.3 Section 404 Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.4 Section 9 Bridges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.5 Section 10 Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.6 Wild and Scenic Rivers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.7 Floodplains (E.O. 11988 and 13690)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.8 Wetlands (E.O. 11907)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. WILDLIFE				
3.1 Section 7 ESA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.2 Bald and Golden Eagle Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.3 Migratory Bird Treaty Act	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.4 NHP Special Use Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.5 FWS Refuge Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. HISTORIC AND CULTURAL RESOURCES				
4.1 Section 106	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.2 NACPPA Compliance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.3 Archeological and Historic Data Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. SOCIAL AND ECONOMIC IMPACTS				
5.1 Uniform Act: Displacement of persons or businesses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.2 American Indian Religious Freedom Act	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.3 Tribal Implications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. ENVIRONMENTAL JUSTICE				
6.1 Impacts to minority and low-income populations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

COOPERATING AND PARTICIPATING AGENCIES

Federal Agencies

U.S. Army Corps of Engineers	Cooperating and participating
U.S. Department of Agriculture (USDA) Forest Service	Cooperating and participating
U.S. Environmental Protection Agency	Cooperating and participating

State Agencies^b

Resource Development Coordinating Committee/ Public Lands Policy Coordinating Office	Participating
Utah Division of Air Quality	Participating
Utah Division of Forestry, Fire and State Lands	Participating
Utah Division of Indian Affairs	Participating
Utah Division of Water Quality	Participating
Utah Office of Tourism	Participating

Regional Governments or Agencies

Central Wasatch Commission	Participating
Utah Transit Authority	Cooperating and participating
Wasatch Front Regional Council	Participating

Local Governments

Salt Lake County	Participating
Salt Lake City	Participating
Salt Lake City Department of Public Utilities	Cooperating and participating
City of Cottonwood Heights	Participating
Murray City	Participating
Sandy City	Participating
Town of Alta	Participating
Metropolitan Water District of Salt Lake and Sandy	Participating

REVISED COORDINATION PLAN

- Required for an EIS
- Describes the agency coordination and consultation plan
- Lists agency roles and responsibilities
- Identifies opportunities for public involvement
- Describes the communication methods that will be used
- Communicates upcoming meeting dates and the current project schedule
- Communicates the expected document review schedule

You can review and provide comments!

www.udot.utah.gov/littlecottonwoodeis

EXPECTED SCHEDULE

- EIS Notice of Intent – March 5, 2019 and April XX, 2019
- Public Scoping – March 8 to 30 days after revised NOI.
- Purpose and Need – July 2019
- Alternatives Development – Summer 2019
- Draft EIS – Early 2020
- Final EIS/ROD – Early 2021

AGENCY REVIEW TIMES

- Coordination Plan – 30 days
- Purpose and Need/Screening Methods – 30 days
- Range of Alternatives – 30 days
 - Identify alternatives that should be considered for evaluation
 - Provide input on the alternatives screening process
- Draft EIS – 45 Days

COMMENTS

**Comments are due 30 days after
April NOI.**

CURRENT AND UPCOMING EVENTS

- Public Scoping Meeting (Joint EIS and Transportation Action Plan)
 - Tuesday, April 9, 2019 – 4 PM to 8 PM
 - Cottonwood Heights City Hall

EIS TEAM CONTACT INFORMATION

John Thomas
UDOT Project Manager
johnthomas@utah.gov

Website
www.udot.utah.gov/littlecottonwoodEIS

Email
littlecottonwoodeis@utah.gov

LITTLE COTTONWOOD CANYON SHORT-TERM INTERSECTION IMPROVEMENTS



Traffic backup from “Y” intersection

LITTLE COTTONWOOD CANYON INTERSECTIONS PROJECT

Little Cottonwood Canyon Near-term Improvements

- “Y” Intersection (S.R. 209/210)
- Alta Wildcat Entry
- Snowbird Entry 4
- High-Tee Pilot Program
- Projects have independent utility
- Environmental documents – CATEX
- Construction 2019 & 2020

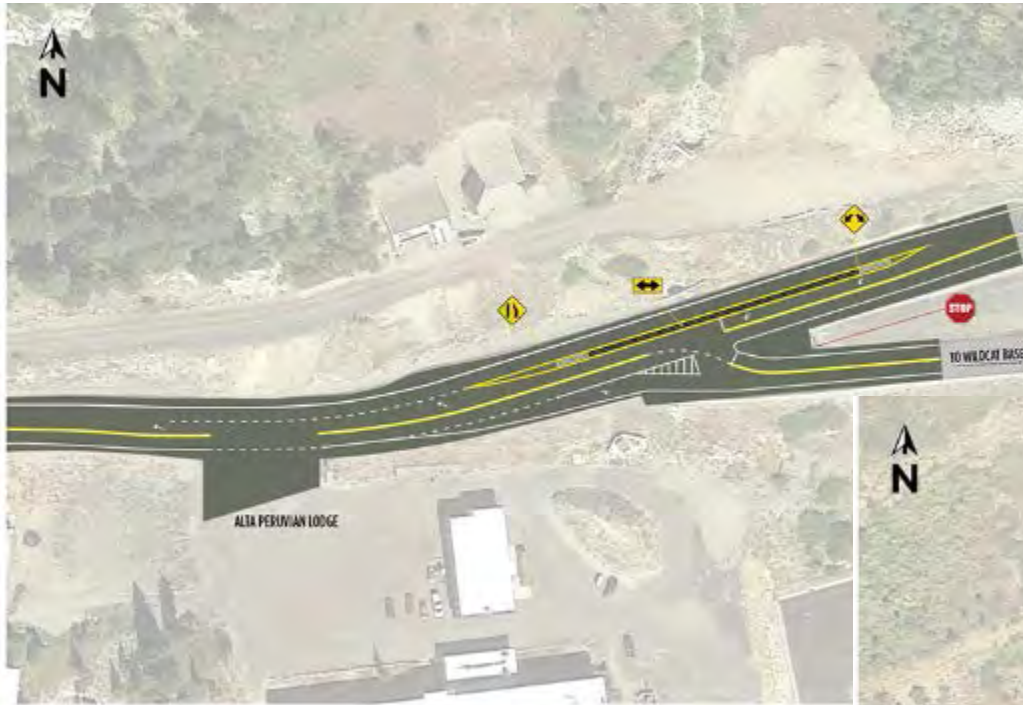


“Y” INTERSECTION CONCEPT

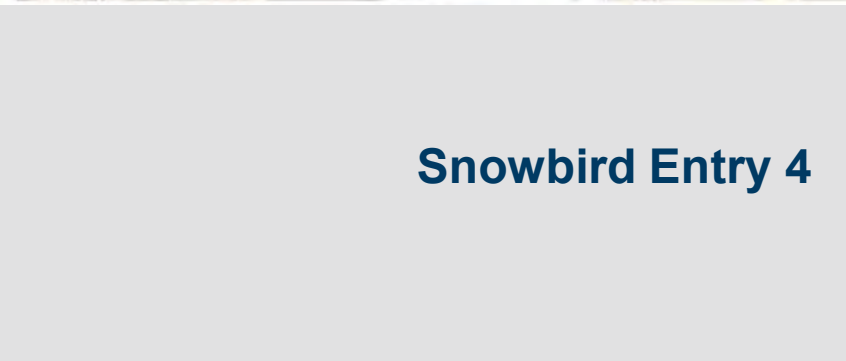
Similar Function as Freeway Ramp



HIGH-TEE PROGRAM



Alta Wildcat

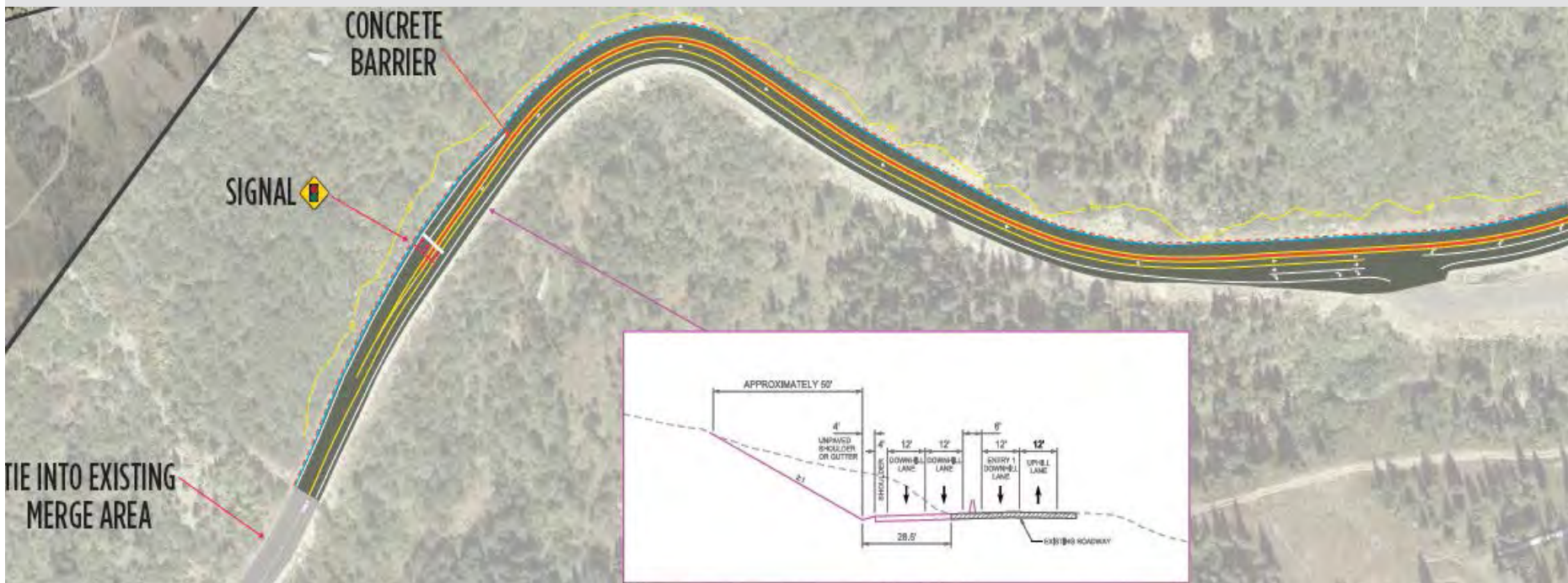


Snowbird Entry 4



HIGH-TEE PROGRAM

Metering Concept

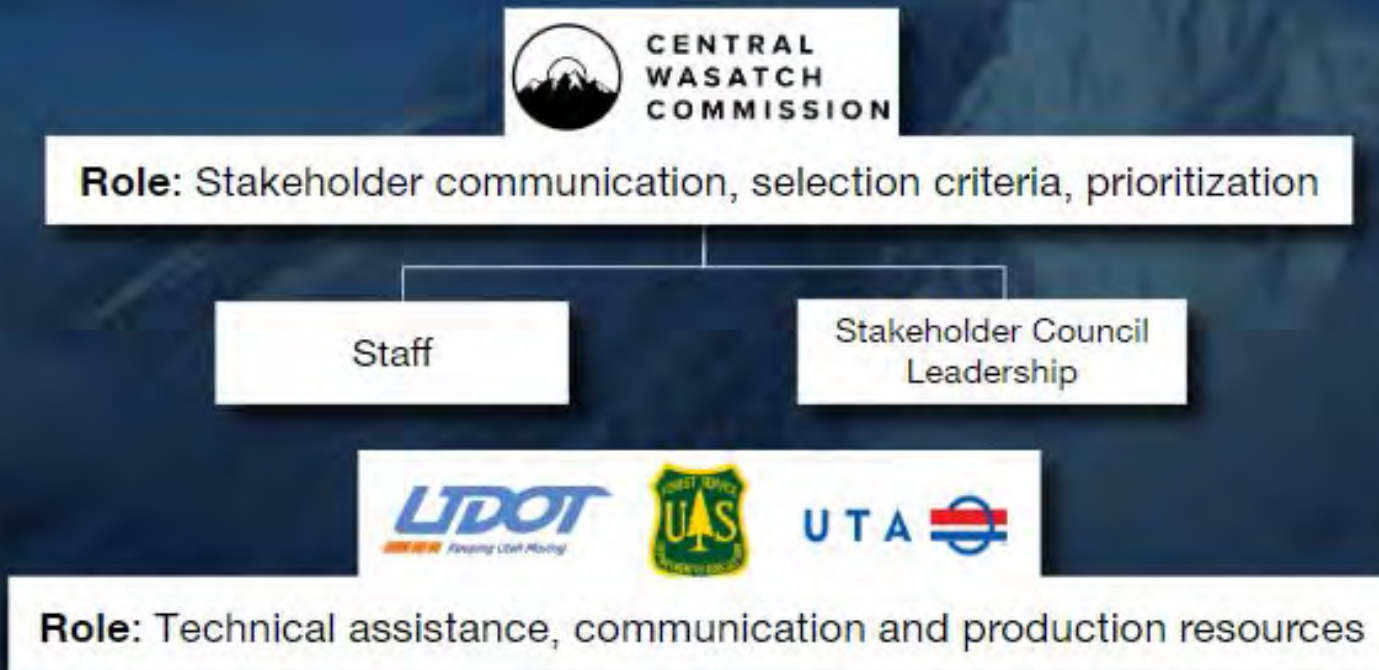


TRANSPORTATION ACTION PLAN



CWC/UDOT TAP ROLES

Cottonwood Canyons Transportation Action Plan



TRANSPORTATION ACTION PLAN TEAM

- CWC/UDOT – Joint Lead Agencies
 - CWC Project Manager – Jesse Dean
 - UDOT Project Manager – John Thomas
- HDR – Lead Planning Consultant
 - Project Manager – Frank Pisani
 - Fehr & Peers – Traffic/Parking/Transit
 - Penna Powers – Public Involvement

TRANSPORTATION ACTION PLAN FOCUS

- Big and Little Cottonwood Canyons (S.R. 190 and S.R. 210)
- Areas of consideration
 - Valley parking structure study
 - Gravel pit and UTA 9400 South park-and-ride
 - Tolling
 - Transit alternatives analysis
 - Additional roadway capacity and/or passing lanes
 - Existing winter, new summer transit and current stops consolidation
 - Intersection improvements
 - Trailhead parking and restrooms
 - Pedestrian and bicycle
 - Communications
 - Roadway-related water quality issues
 - Operations and maintenance
 - Funding pathways

PURPOSE OF ACTION PLAN

- Represent a collaborative and integrated approach to transportation decision-making
- Develop a prioritized list of short to long term projects
- Consider benefits and impacts of transportation improvements on:
 - Environment
 - Community
 - Economy
- Inform future NEPA process
 - Eliminate duplication of effort in planning and NEPA
 - Early collaboration with stakeholder about future transportation decisions
 - Accelerate project delivery
 - Produce better environmental outcomes

PLANNING AND ENVIRONMENTAL LINKAGE (PEL) PROCESS

1 – Identify Corridor Study Candidate

2 – Develop Corridor Study Work Plan

3 – Develop Existing and Projected Conditions Report

4 – Identify Needs, Issues, Goals, and Screening Criteria

5 – Determine Alternatives Advanced and Not Advanced

6 – Recommend Alternatives

7 – Prepare Draft Corridor Study Report

8 – Make Recommendations



LINK TO FUTURE NEPA

- 23 USC 168, Section 168:
 - Allows agencies to adopt planning decisions in the environmental review process:
 - Tolling
 - Modal decision
 - Preliminary screening of alternatives
 - Environmental setting
 - Decisions on methodologies for analysis
 - Programmatic mitigation strategies
 - Potential mitigation activities, locations, and investments

PEL REPORT CONTENT

■ Outline

- Existing conditions
- Purpose and need for conditions
- Develop goals, objectives, and criteria
- Alternatives development and screening
- Project recommendations and prioritization
- Action plan
 - List of projects
 - Project implementation
 - Environmental/mitigation
 - Next steps
- Final corridor study

DELIVERABLES

- Public involvement – Throughout
 - Scoping
 - Goals and objectives
 - Alternatives screening
 - Project recommendations
- Scoping comment summary report – June 2019
- Existing conditions report – Summer 2019
- Alternatives development and screening report – Late 2019
- Valley parking study – Late 2019
- Final PEL report – Early 2021
 - Alternative evaluation matrices
 - Comment summary
 - Project plan sheets and estimates
 - Project evaluation matrix and recommendation list
- Wall map of projects, story maps, infographic – Throughout

WHAT IMPROVEMENTS SHOULD BE CONSIDERED?

We need your input

- What specific transportation-related and associated environmental improvements should be considered in the Cottonwood Canyons?
 - Any environmental or permitting concerns
 - Any in canyon infrastructure improvement recommendations
 - Any other priorities
 - Other ideas?
- Please respond with your ideas by May 3, 2019

TRANSPORTATION AREA PLAN CONTACT INFORMATION

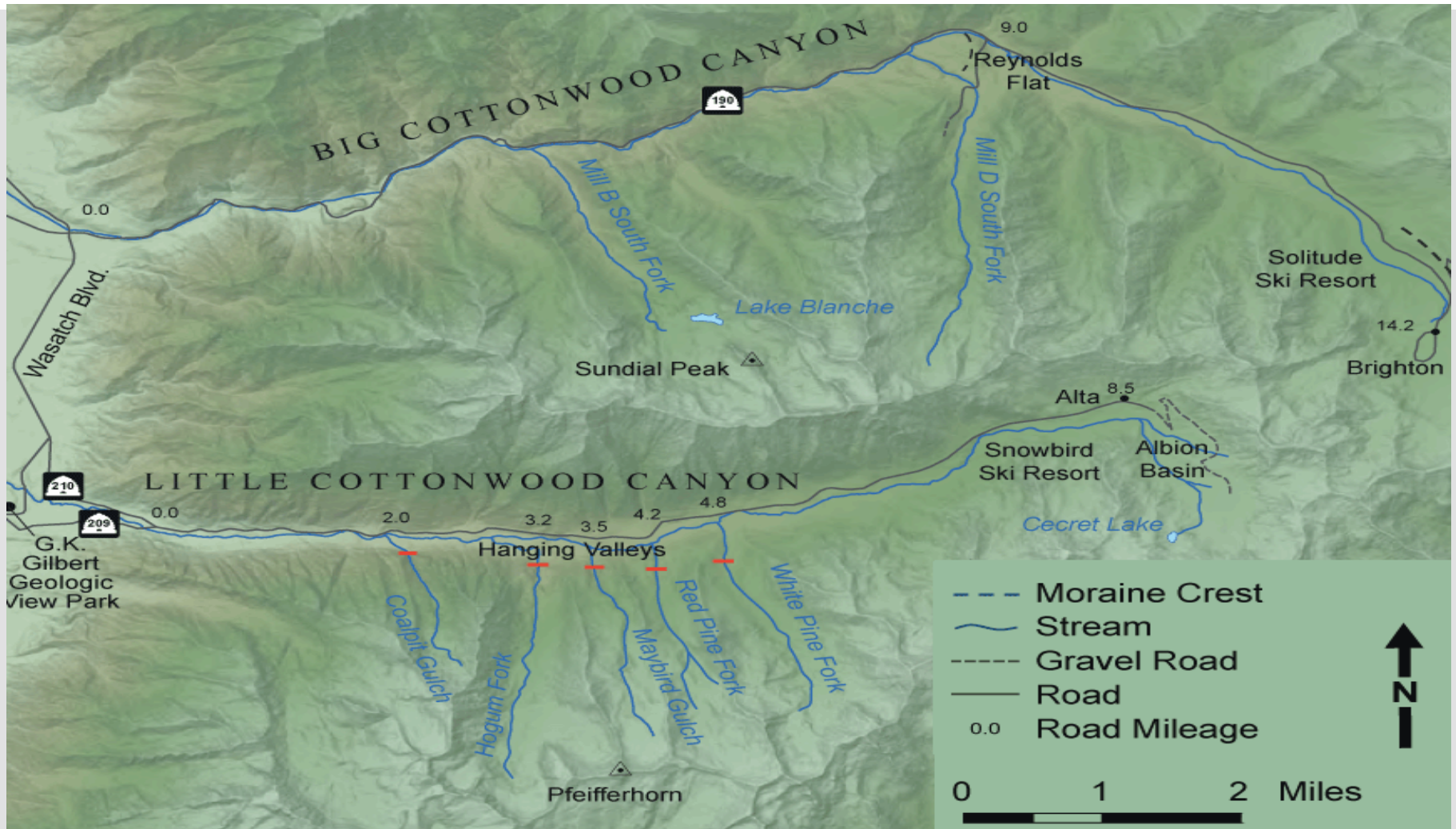
Jesse Dean
CWC Project Manager
jesse@cwc.utah.gov

John Thomas
UDOT Project Manager
johnthomas@utah.gov

Website
www.udot.utah.gov/littlecottonwoodEIS

Email
littlecottonwoodeis@utah.gov

FINAL QUESTIONS?



WASATCH BOULEVARD IMPROVEMENTS

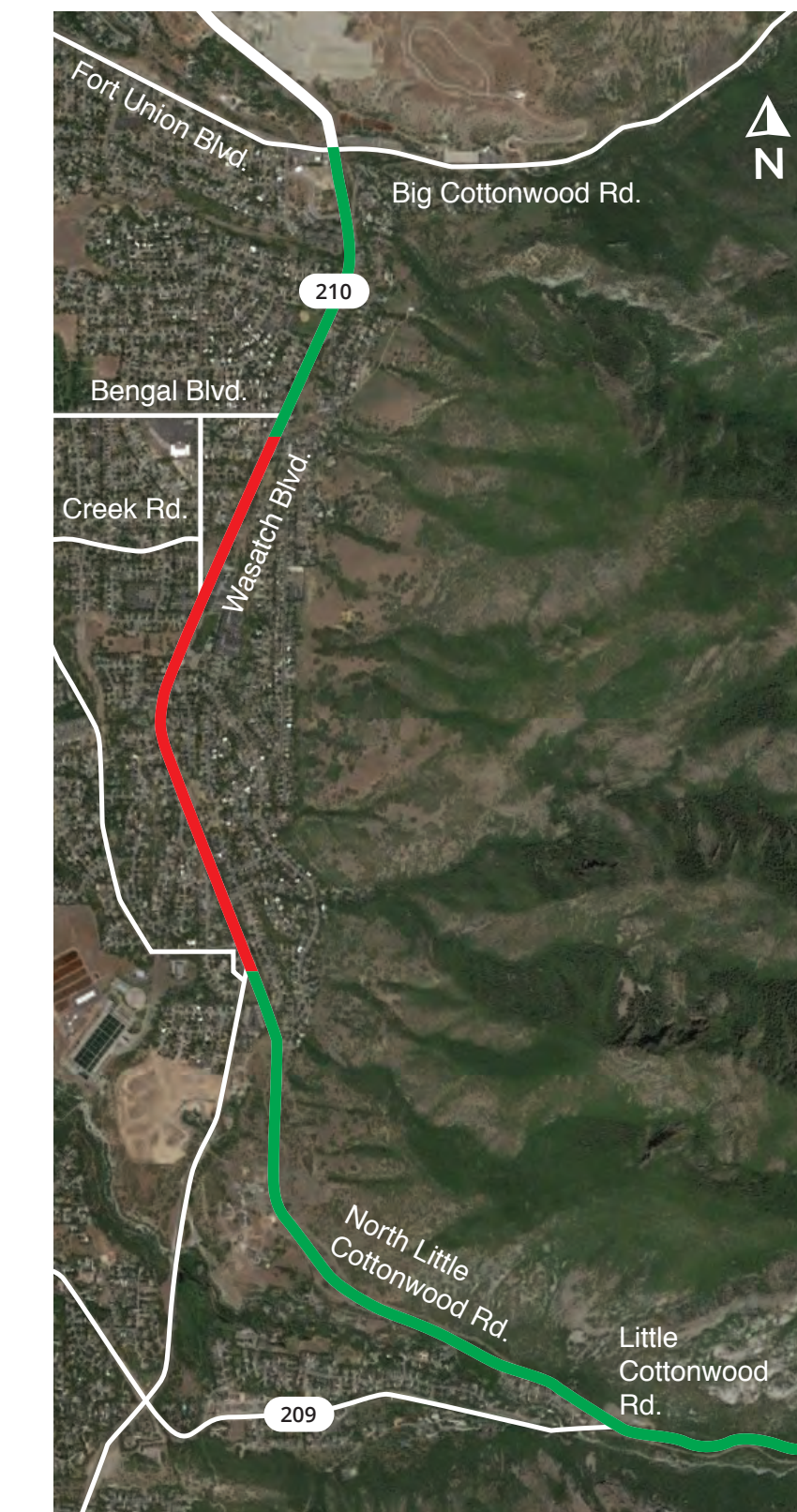
FORT UNION BOULEVARD TO NORTH LITTLE COTTONWOOD ROAD

INITIAL EVALUATION FOR IMPROVING WASATCH BOULEVARD

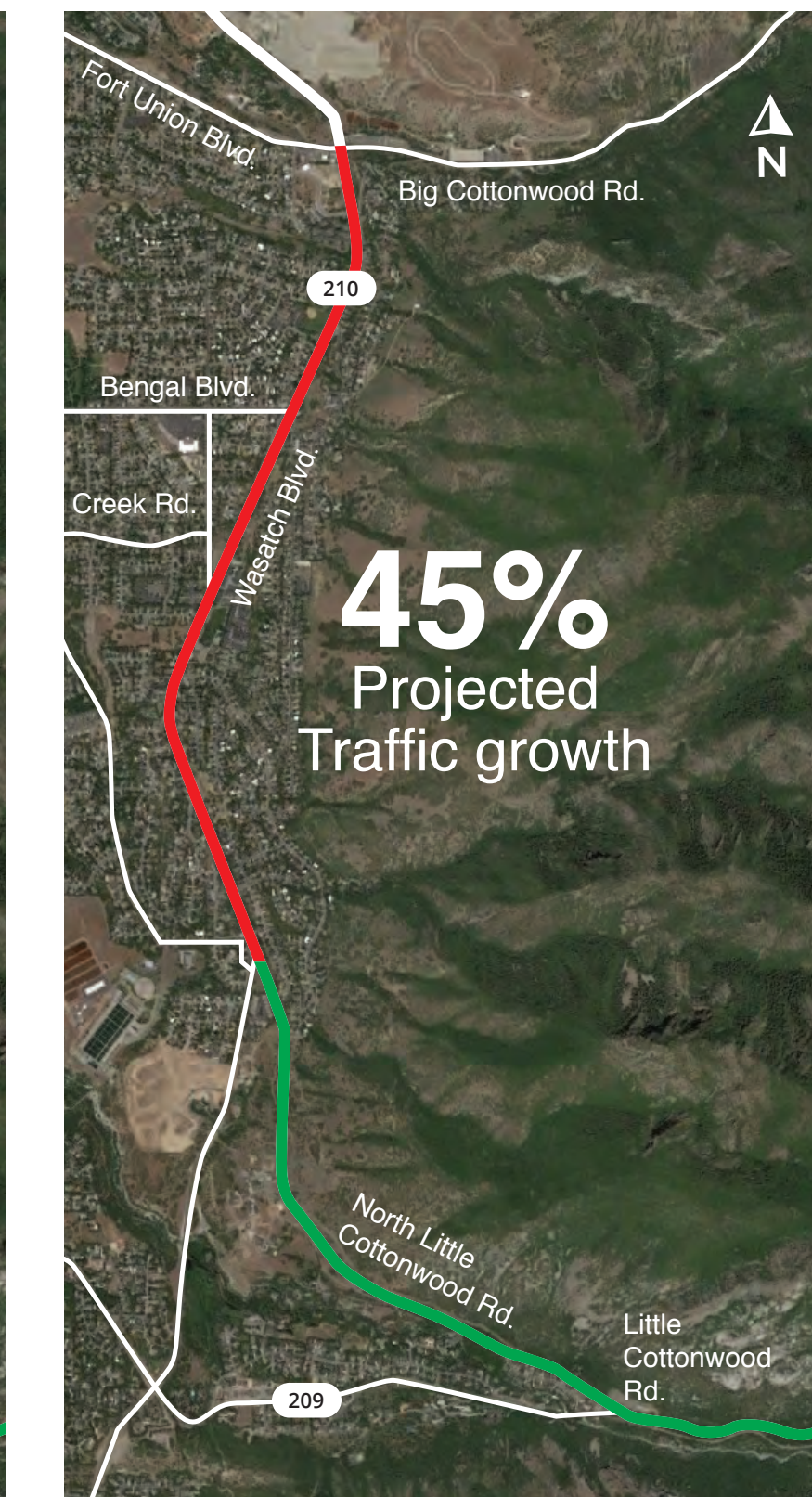
Wasatch Boulevard Screening Criteria	Measure
Reduce delay and improve capacity (improve regional mobility)	Achieve a level of service D or better on Wasatch Boulevard and intersections in 2050
Consider the Wasatch Boulevard Master Plan Corridor Study	Meet the overall objectives identified in the master plan corridor study while addressing UDOT's safety and mobility requirements
Improve safety	Meet UDOT's safety standards (such as lane and shoulder widths, access and sight distance) for all roadway users including passenger and freight vehicles, cyclists, pedestrians and recreational users

IMPROVING MOBILITY AND SAFETY FOR WASATCH BOULEVARD

EXISTING CONDITIONS (2015) P.M. PEAK-PERIOD



FUTURE NO-ACTION CONDITIONS (2050) P.M. PEAK-PERIOD



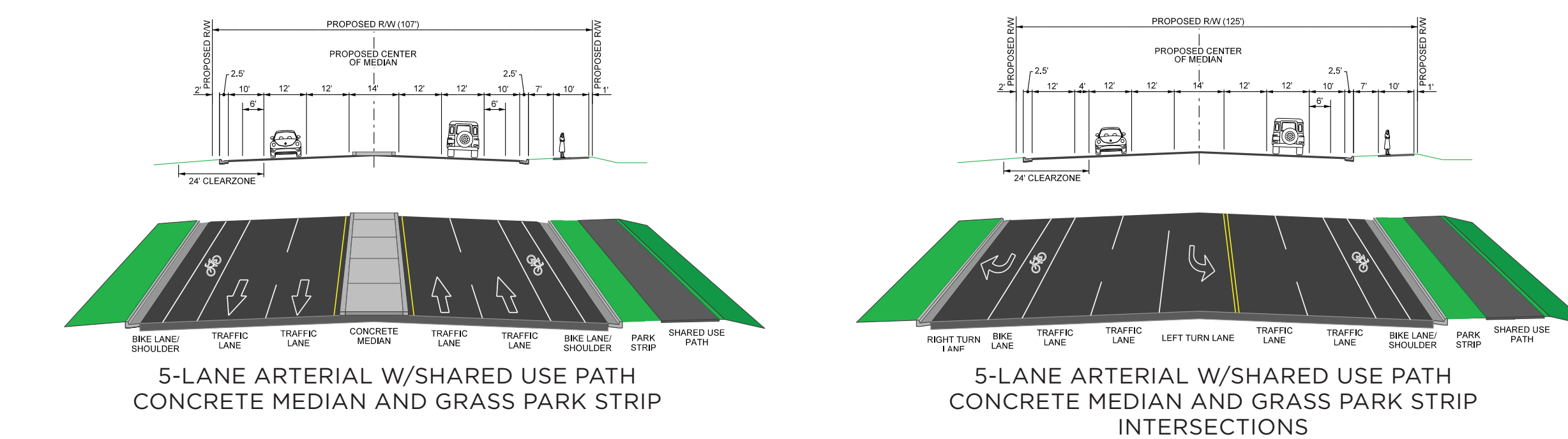
LEVEL OF SERVICE

- A | NO DELAYS**
Highest quality of service. Free traffic flow with few restrictions on maneuverability or speed.
- B | NO DELAYS**
Stable traffic flow. Speed becoming slightly restricted. Low restriction on maneuverability.
- C | MINIMAL DELAYS**
Stable traffic flow, but less freedom to select speed.
- UDOT Goal**
- D | NOTICEABLE DELAYS**
Traffic flow becoming unstable. Speed subject to sudden change.
- E | CONSIDERABLE DELAYS**
Unstable traffic flow. Speed changes quickly and maneuverability is low.
- F | CONSIDERABLE DELAYS**
Heavily congested traffic. Demand exceeds capacity and speed varies greatly.

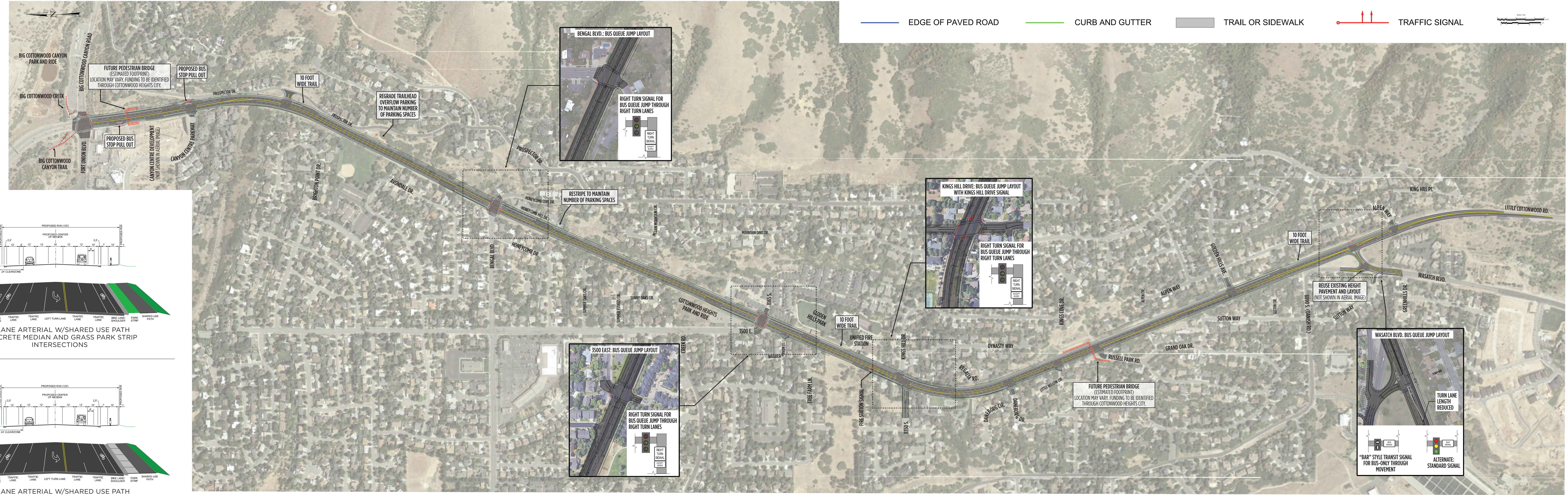
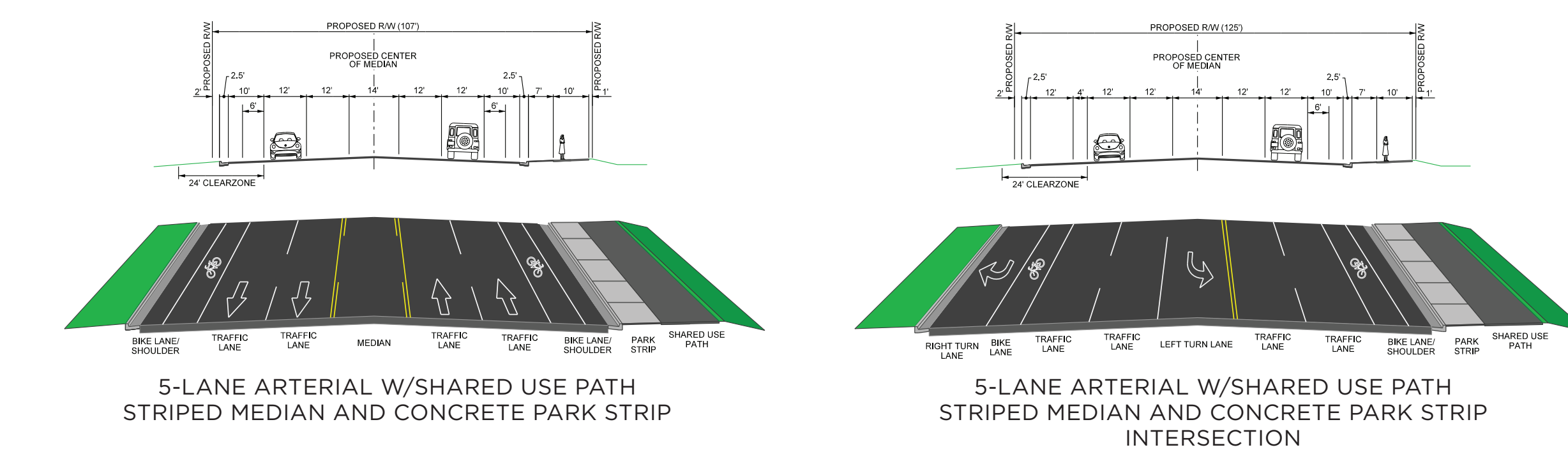
DESIGN NEED ELEMENTS

- Blind intersection at Kings Hill Drive
- Short merge at High-T
- The standard shoulder width for this segment is 8 feet (The current shoulder width varies from 4 to 10 feet, with 4 feet being the typical width)
- The length of the deceleration lane for the center left turn at Golden Hills Avenue is substandard
- Unprotected hazards within the clear zone including substandard barrier end treatments, trees and steep slopes
- No pedestrian sidewalks or trail

WASATCH BLVD: 5-LANE



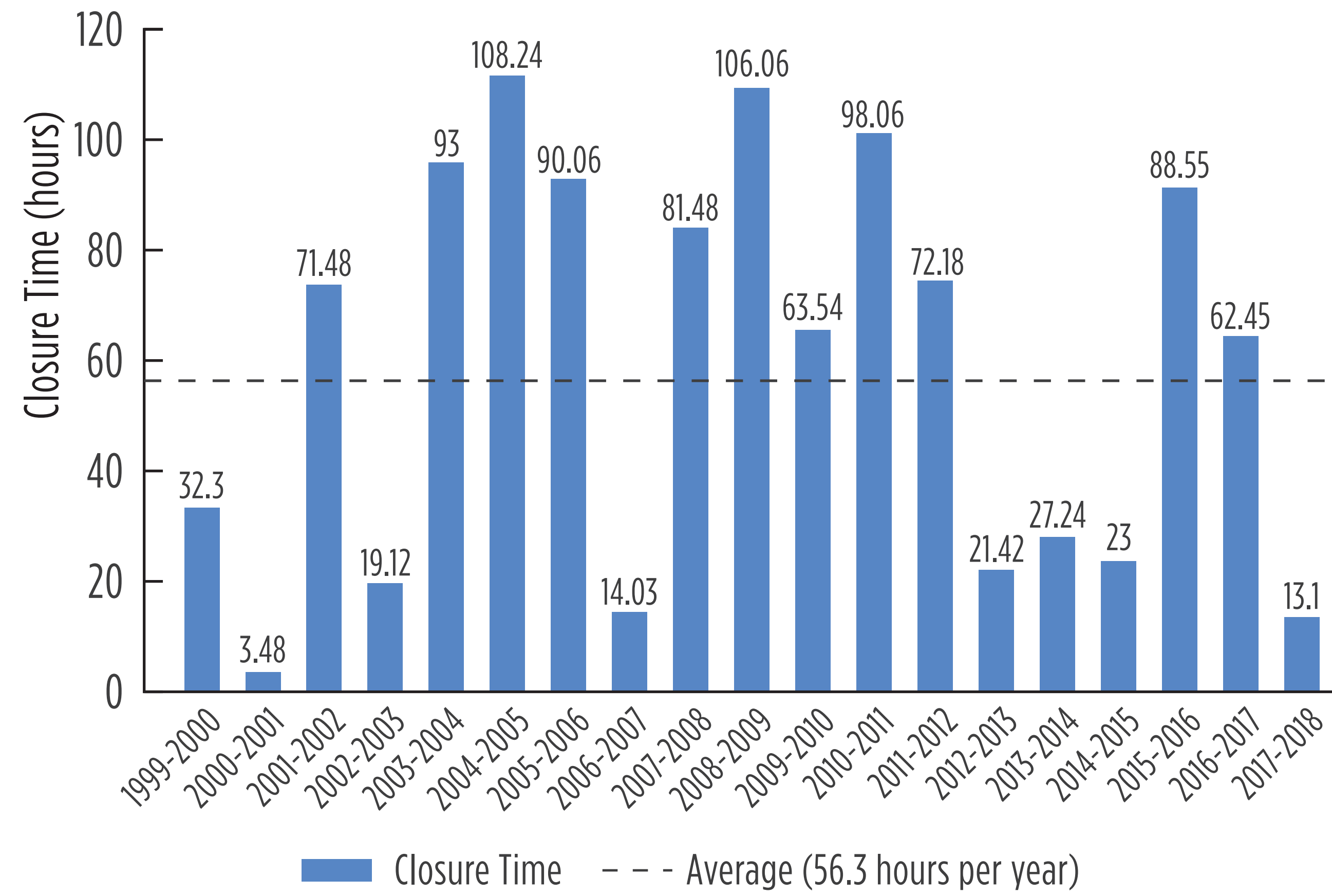
WASATCH BLVD: 5-LANE



LITTLE COTTONWOOD CANYON SNOWSHED LOCATIONS

WHITE PINE CHUTES, WHITE PINE AND LITTLE PINE

YEARLY LCC CLOSURE HOURS DUE TO AVALANCHE MITIGATION

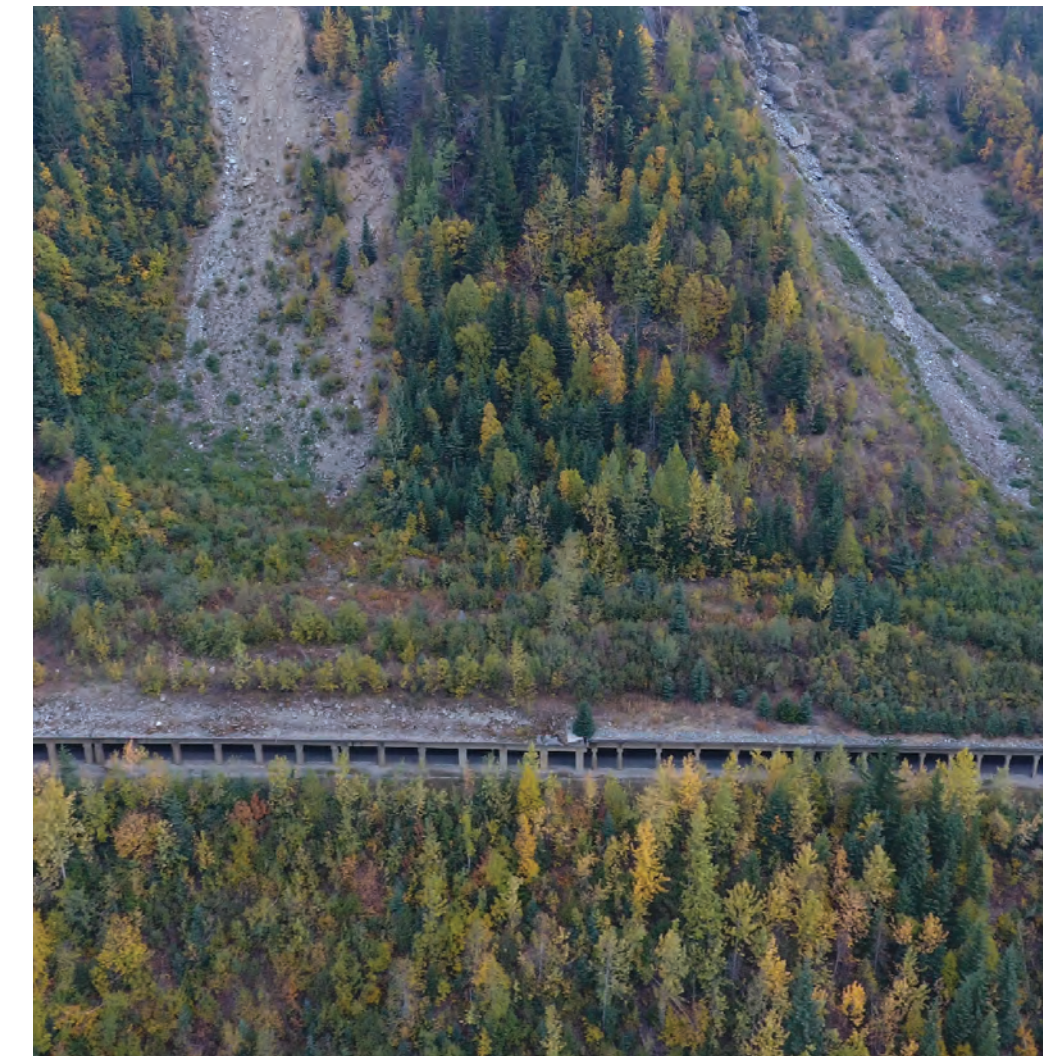


INITIAL EVALUATION FOR IMPROVING CANYON ROADWAY RELIABILITY

Avalanche Mitigation Screening Criteria

Improve avalanche related roadway reliability and safety in 2050

- Substantially reduce number of hours and/or days that avalanches delay users
- Substantially reduce the avalanche hazard for roadway users



AVALANCHE HAZARD INDEX (AHI):
NUMERIC EXPRESSION OF THE POTENTIAL THREAT OF AN AVALANCHE

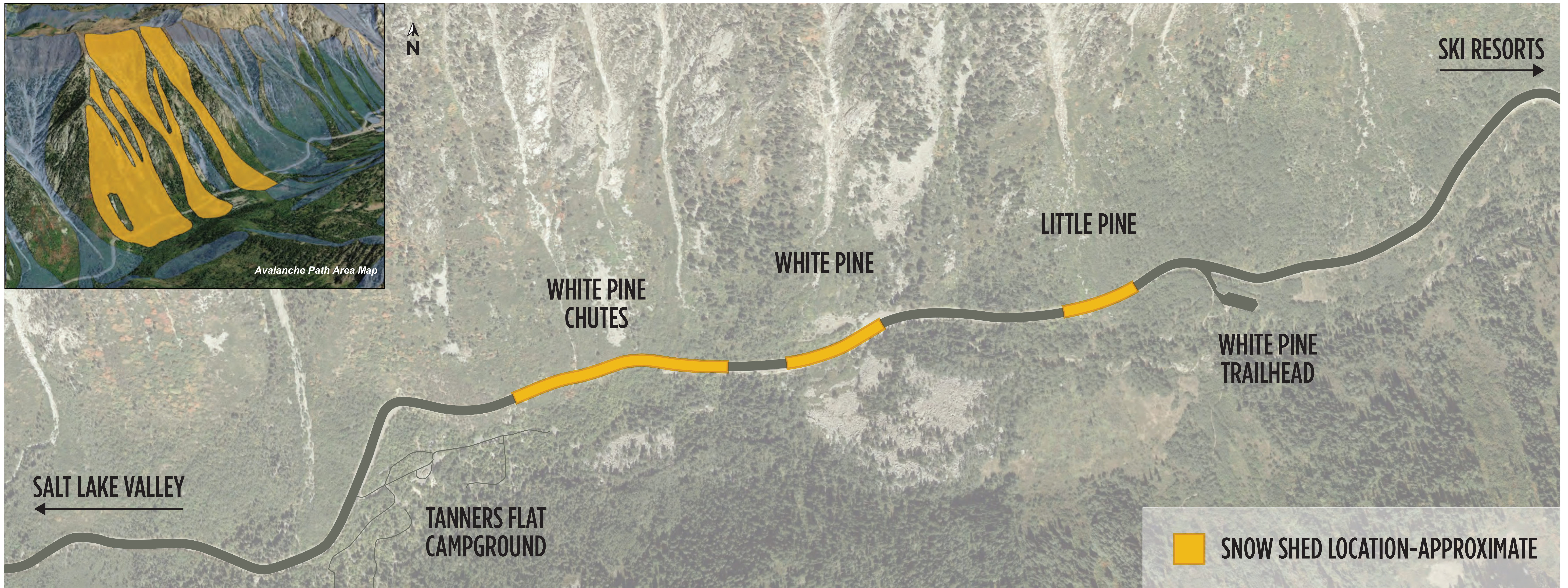
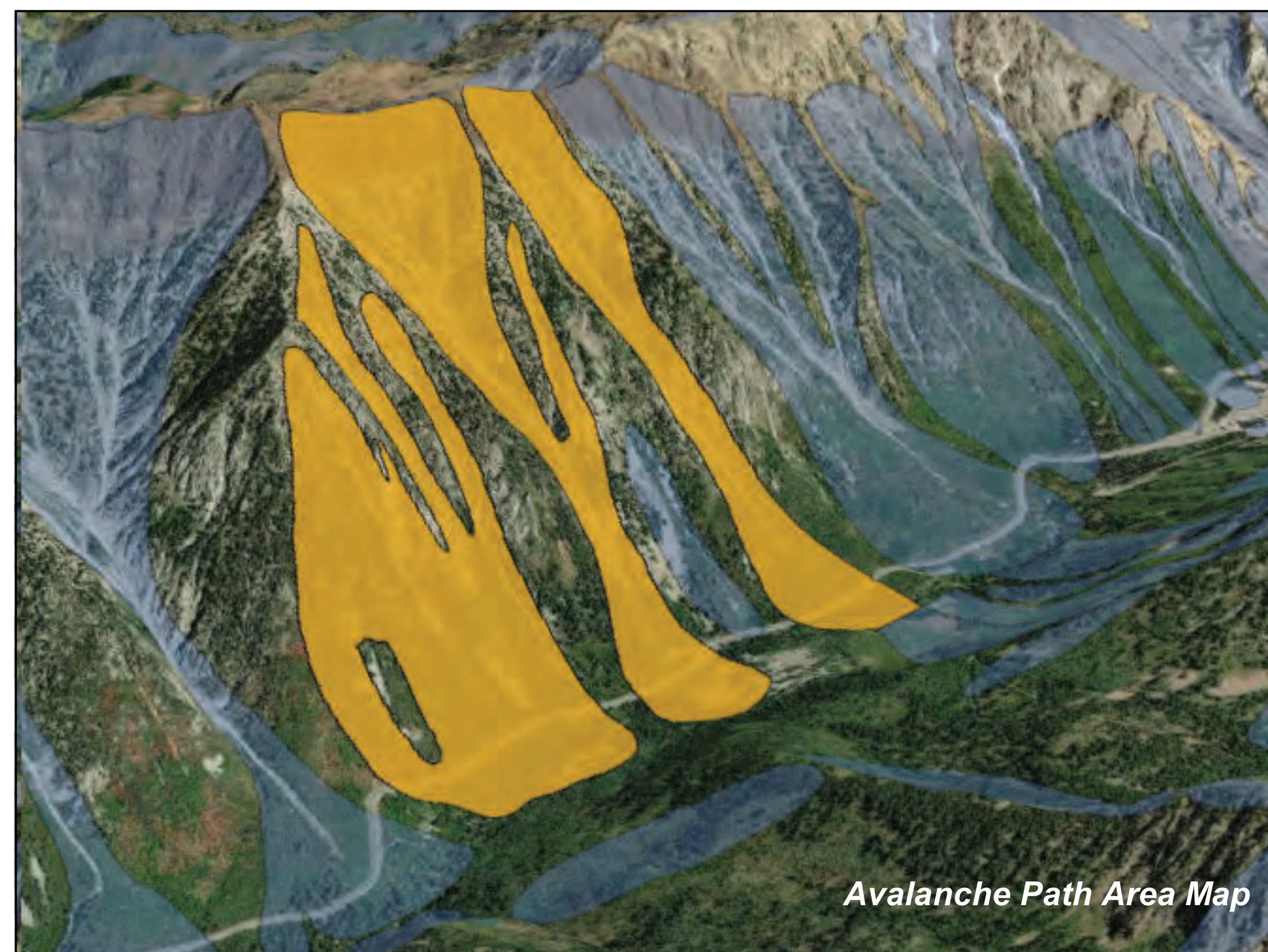
CURRENT AVALANCHE HAZARD INDEX

Hazard Category	AHI
Very Low	Less than 1
Low	1 to 10
Moderate	10 to 40
High	40 to 150
Very High	Greater than 150

← LCC AHI=90 (Mitigated)

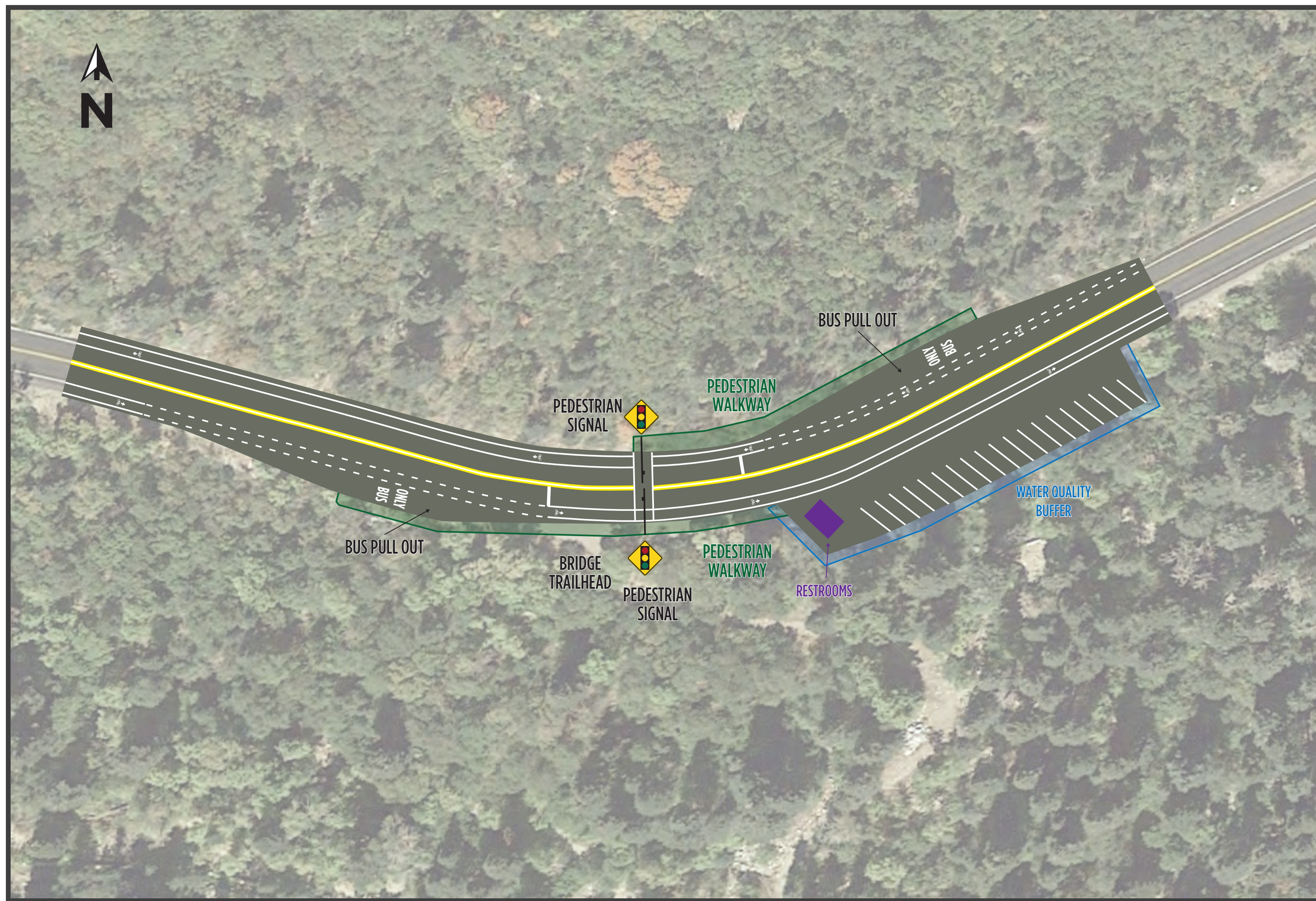
← LCC AHI=7,304 (Unmitigated)

Source: Dynamic Avalanche Consulting 2018

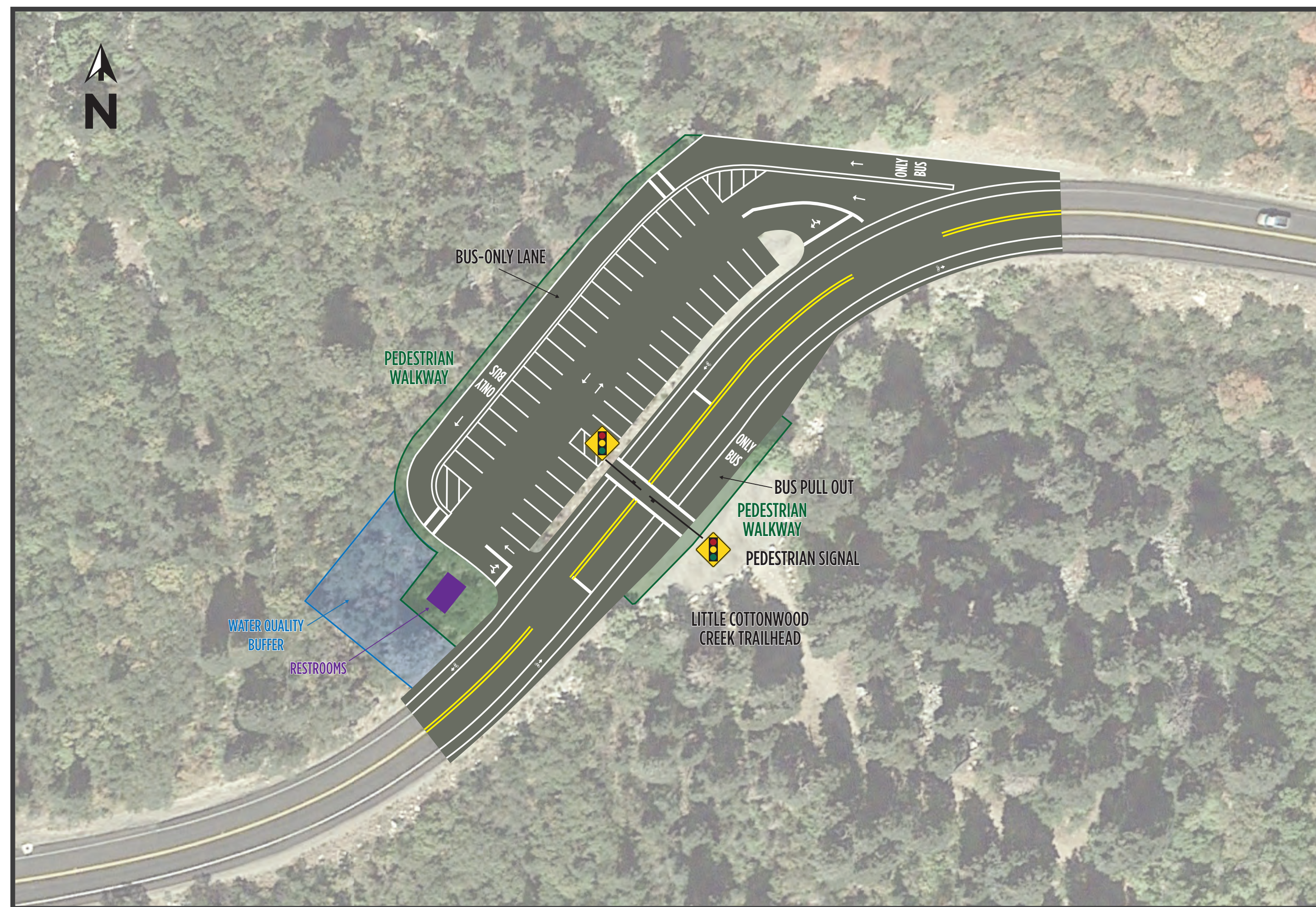


■ SNOW SHED LOCATION-APPROXIMATE

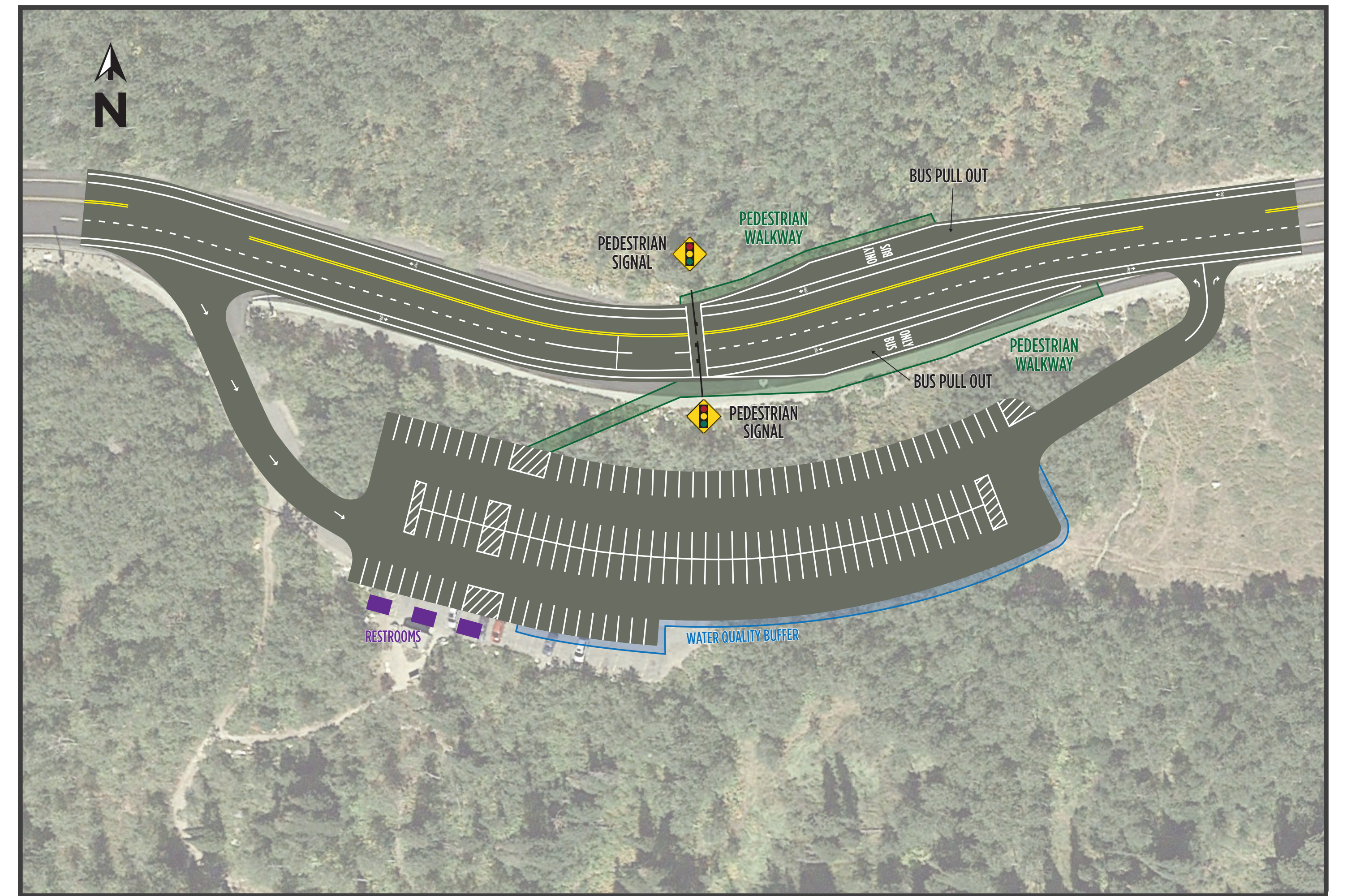
PARKING CONCEPT BRIDGE TRAILHEAD



PARKING CONCEPT LISA FALLS TRAILHEAD



PARKING CONCEPT WHITE PINE TRAILHEAD



NEED TO IMPROVE TRAILHEAD PARKING

- Pedestrian conflicts from parked cars on side of the road
- Cars parked on roadway shoulder force bicyclists into the travel lanes
- Increases sedimentation into watershed from damaged roadway shoulder
- Creates informal non-designated trailheads
- Informal trailheads contribute to erosion, mineral soil loss, the spread of weeds and loss of native vegetation

INITIAL EVALUATION FOR IMPROVING TRAILHEAD PARKING

Trailhead Parking Screening Criteria

- Improve roadway safety by reducing conflicts
- Reduce parking-related congestion
- Improve parking at existing trailheads to support travel modes while improving safety
- Reduce traffic conflicts at existing trailhead locations
- Keep parking levels at year 2000 levels

WHAT TRAILHEAD OPTIONS WOULD YOU CONSIDER?

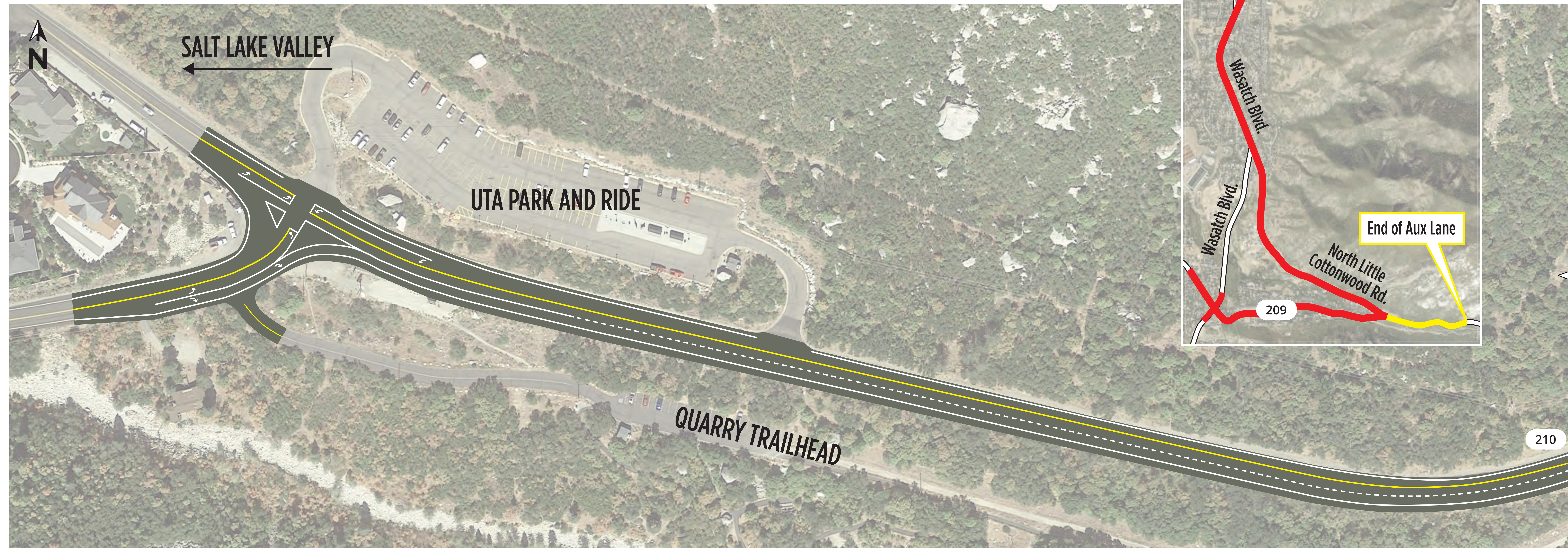
Alternative	Eliminate On-Road Parking?	Transit Stops?*	Changed Trailhead Parking?
No-Action	No	No	No
Alternative 1	Yes, within ¼ mile radius of trailheads	Yes	No
Alternative 2	Yes, within ¼ mile radius of trailheads	Yes	Yes, trailhead parking will accommodate the on-road parking eliminated within a ¼ mile radius of the trailheads
Alternative 3	Yes, from canyon entrance to Snowbird Entry 1	Yes	

*Transit stops will accommodate future transit

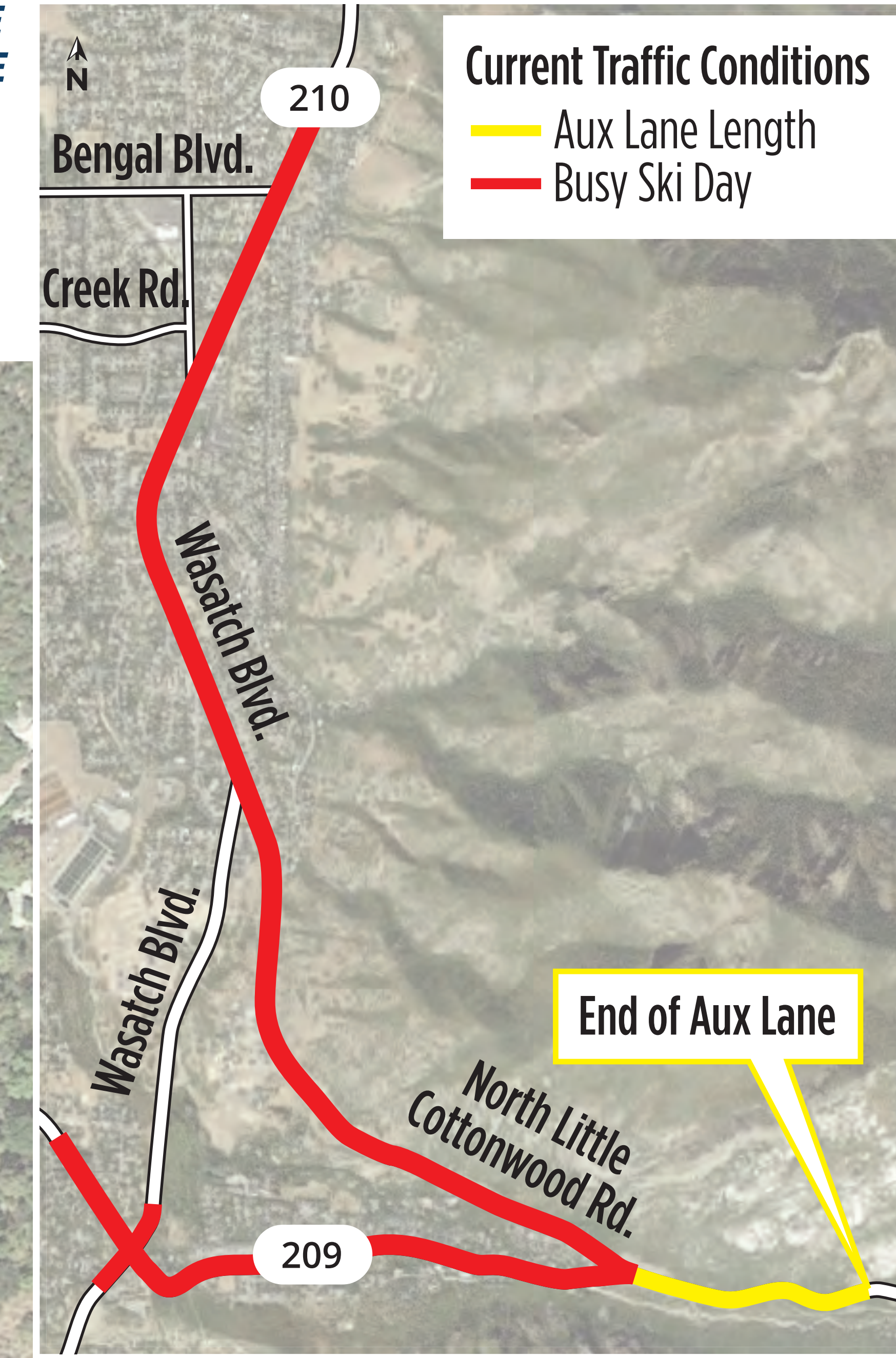
APRIL 2019 (PRELIMINARY CONCEPTS: SUBJECT TO CHANGE)

PLANNED IMPROVEMENTS TO LITTLE COTTONWOOD CANYON

AUXILIARY MERGE LANE LITTLE COTTONWOOD ROAD

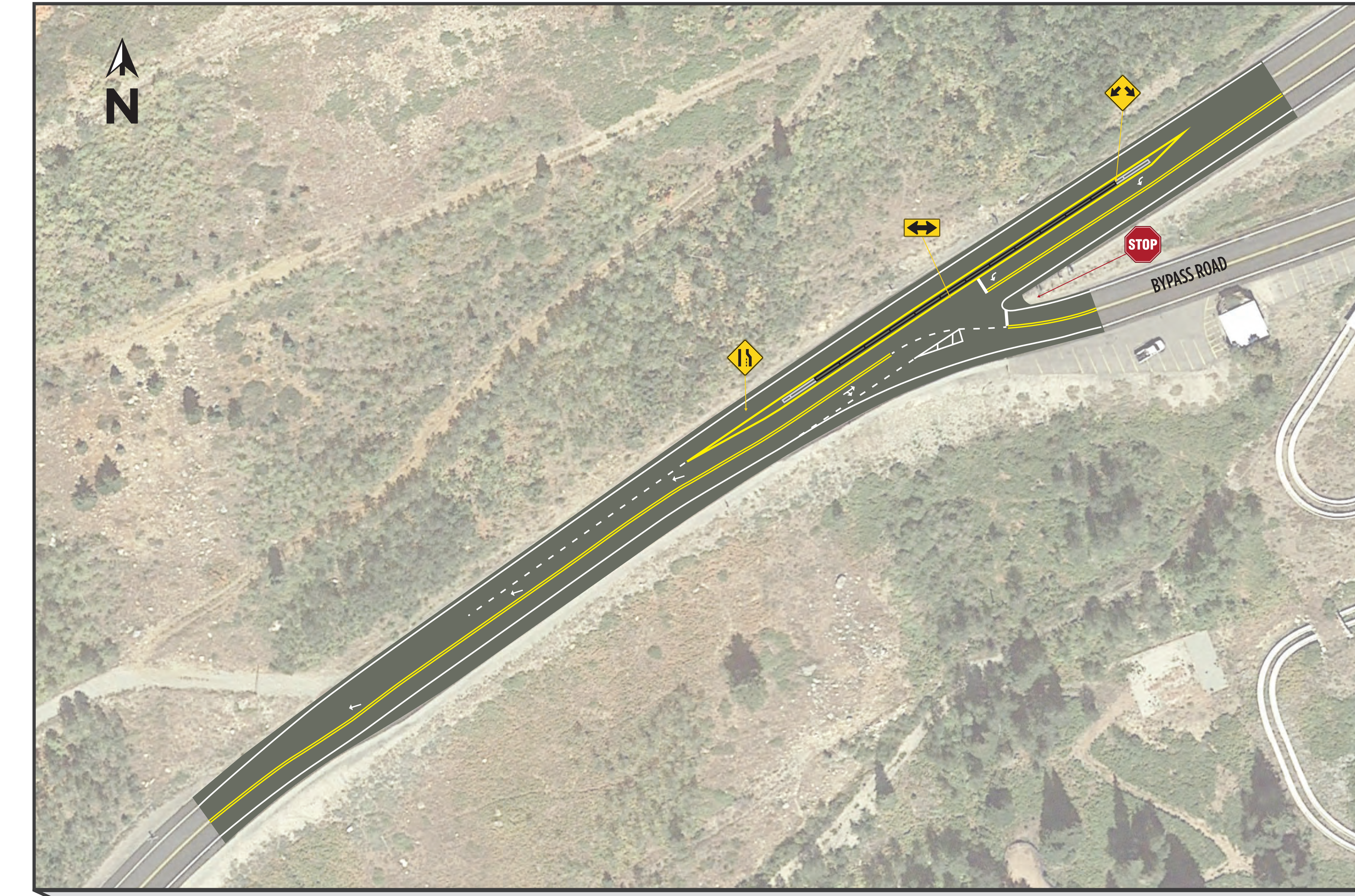


AUXILIARY MERGE LANE PURPOSE IS TO RELIEVE HEAVY CONGESTION ON WASATCH BLVD. AND S.R. 209

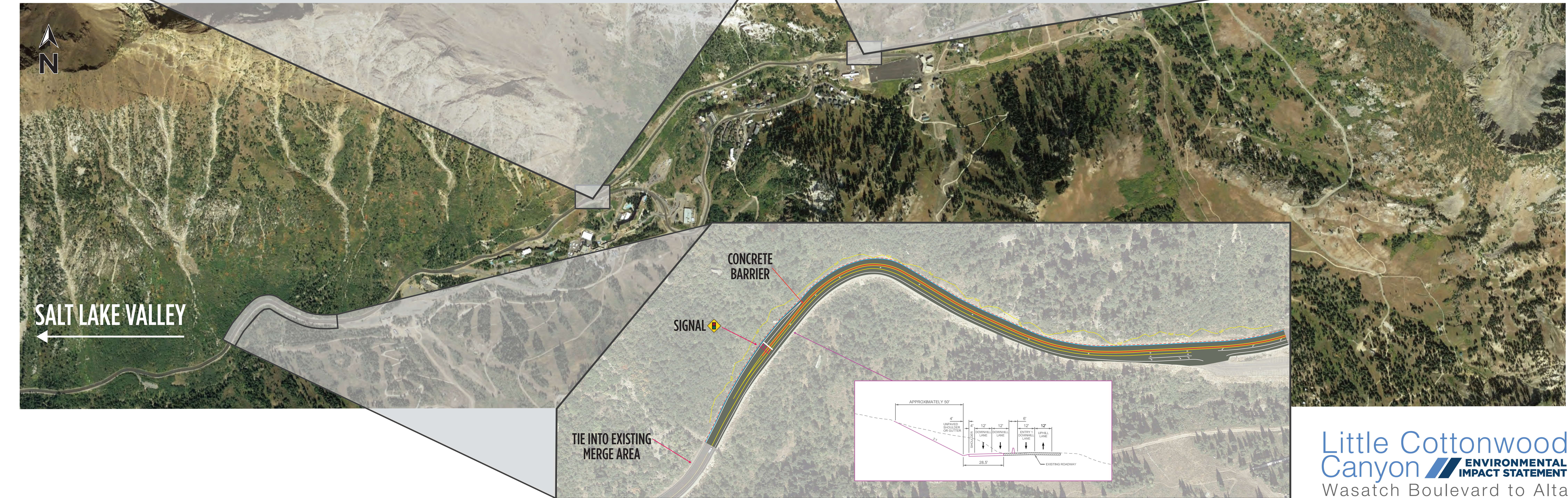
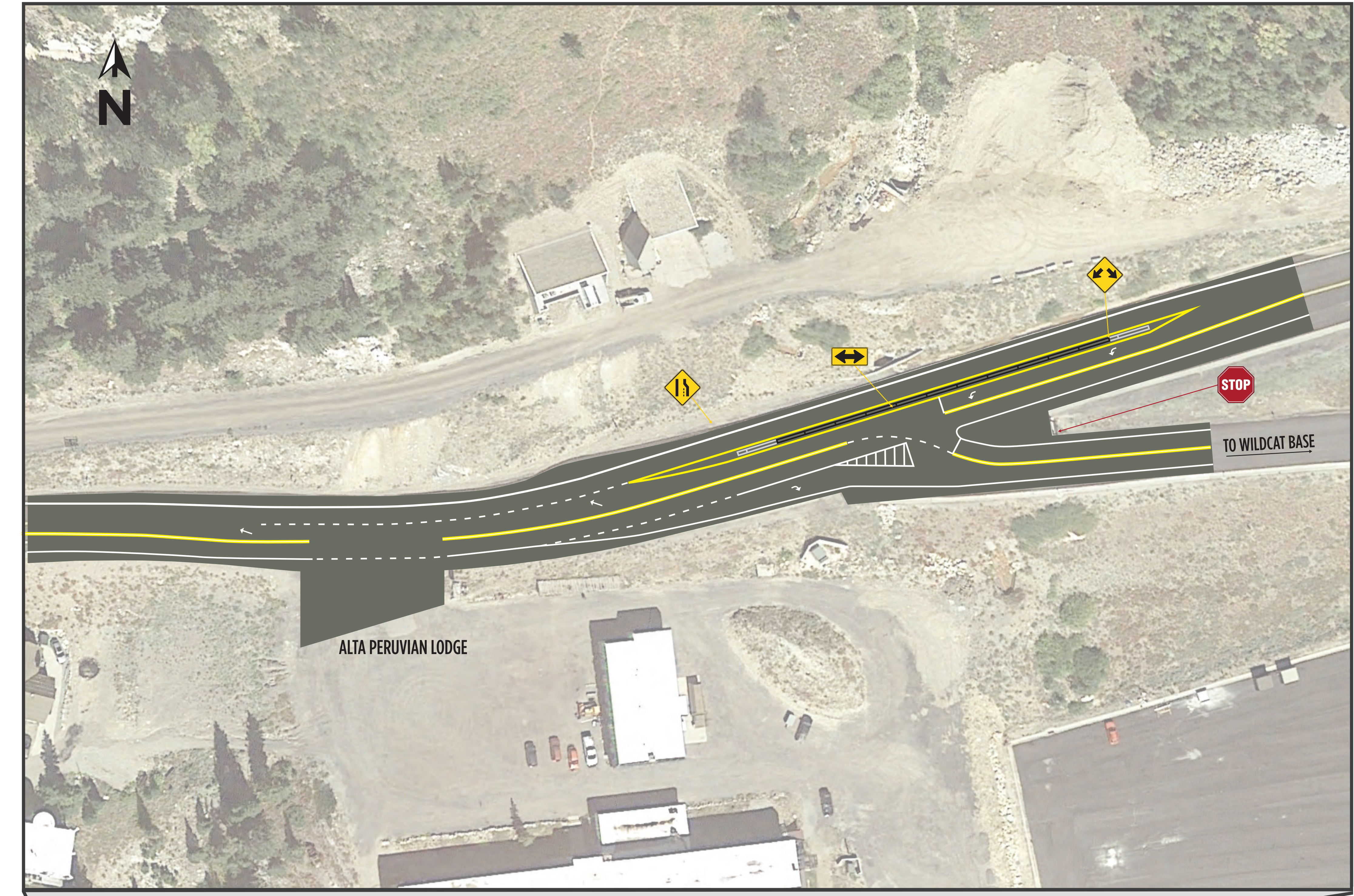


APRIL 2019 (PRELIMINARY CONCEPTS: SUBJECT TO CHANGE)

INTERSECTION DESIGN SNOWBIRD ENTRY 4



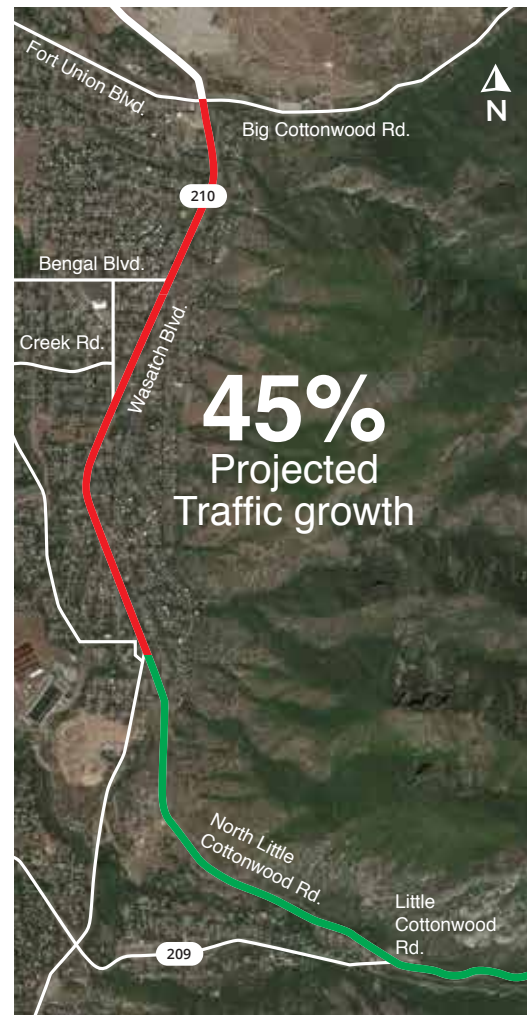
INTERSECTION DESIGN ALTA WILDCAT



IMPROVING MOBILITY AND SAFETY FOR WASATCH BOULEVARD

EXISTING CONDITIONS (2015)
P.M. PEAK-PERIOD

FUTURE NO-ACTION CONDITIONS
(2050) P.M. PEAK-PERIOD



LEVEL OF SERVICE

- A | NO DELAYS**
Highest quality of service. Free traffic flow with few restrictions on maneuverability or speed.
- B | NO DELAYS**
Stable traffic flow. Speed becoming slightly restricted. Low restriction on maneuverability.
- C | MINIMAL DELAYS**
Stable traffic flow, but less freedom to select speed.
- UDOT Goal**
- D | NOTICEABLE DELAYS**
Traffic flow becoming unstable. Speed subject to sudden change.
- E | CONSIDERABLE DELAYS**
Unstable traffic flow. Speed changes quickly and maneuverability is low.
- F | CONSIDERABLE DELAYS**
Heavily congested traffic. Demand exceeds capacity and speed varies greatly.

INITIAL EVALUATION FOR IMPROVING WASATCH BOULEVARD

Wasatch Boulevard Screening Criteria	Measure
Reduce delay and improve capacity (improve regional mobility)	Achieve a level of service D or better on Wasatch Boulevard and intersections in 2050
Consider the Wasatch Boulevard Master Plan Corridor Study	Meet the overall objectives identified in the master plan corridor study while addressing UDOT's safety and mobility requirements
Improve safety	Meet UDOT's safety standards (such as lane and shoulder widths, access and sight distance) for all roadway users including passenger and freight vehicles, cyclists, pedestrians and recreational users

The official scoping period for the Little Cottonwood Canyon EIS runs March 5, 2019 through May 3, 2019. Please submit comments to littlecottonwoodeis@utah.gov or udot.utah.gov/littlecottonwoodeis

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by UDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated January 17, 2017, and executed by FHWA and UDOT.

LITTLE COTTONWOOD CANYON EIS

FINDING SOLUTIONS FOR TODAY

UDOT recently adjusted the Little Cottonwood Canyon EIS to focus on projects based on greatest benefit.



Avalanche mitigation



Wasatch Boulevard



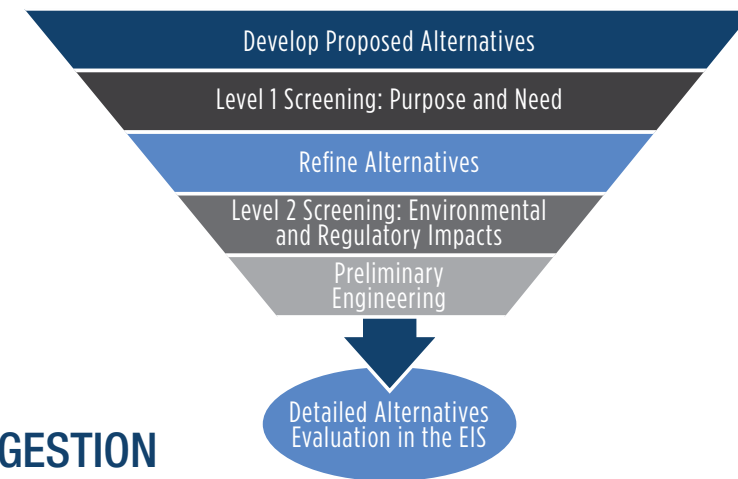
Trailhead Parking



Roadway Capacity

ALTERNATIVES EVALUATION PROCESS

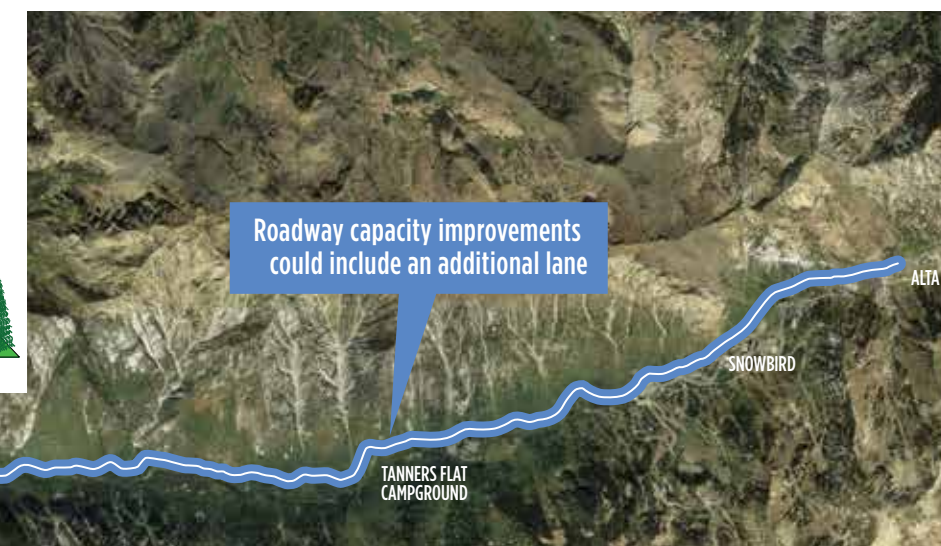
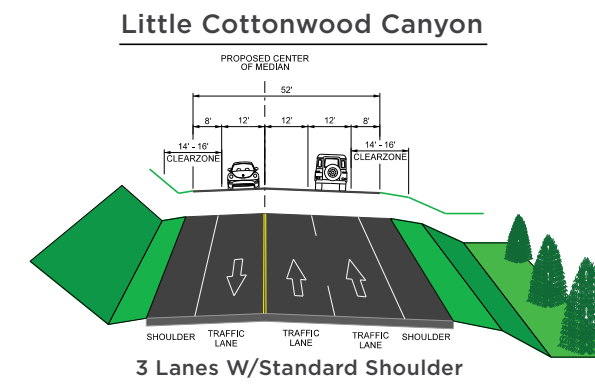
UDOT has developed, with public and agency input, a Purpose and Need Statement for the project that will guide the development of project alternatives. The Purpose and Need explains why a project is necessary, what it should achieve and will serve as the criteria in determining a range of project alternatives. An alternative must meet the Purpose and Need in order to be considered for further study.



IMPROVING MOBILITY AND REDUCING CONGESTION

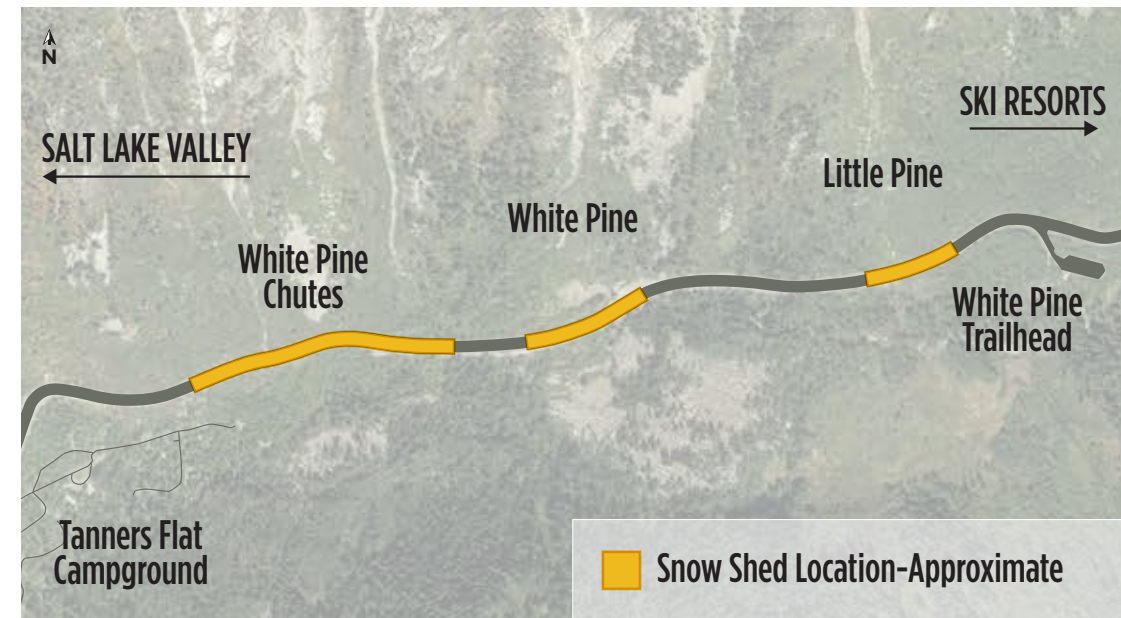
INITIAL EVALUATION FOR INCREASED ROADWAY CAPACITY

Roadway Capacity Screening Criteria	Measure
Improve overall mobility and reduce congestion in 2050	<ul style="list-style-type: none"> Reduce travel time over 2050 No-Build congested conditions Support transit use



IMPROVING CANYON ROADWAY RELIABILITY WITH AVALANCHE MITIGATION

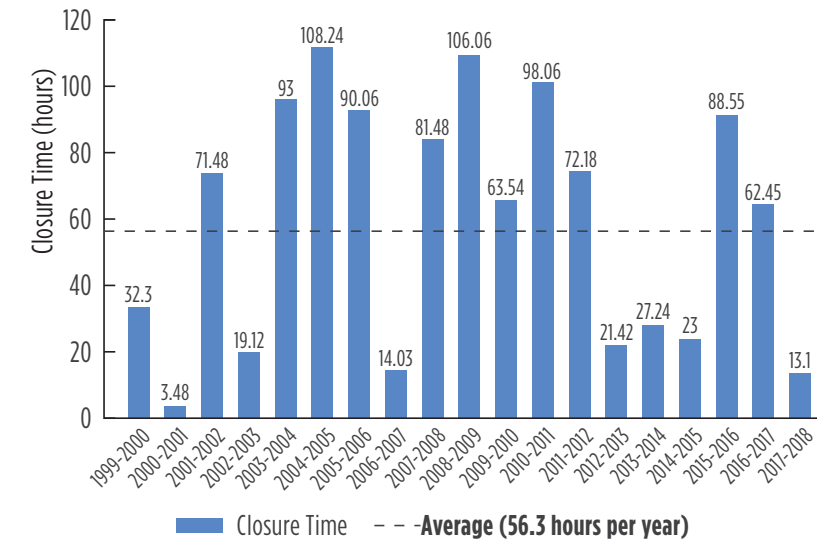
KEY AVALANCHE LOCATIONS



MOST TRAFFIC CONGESTION AND DELAYS ARE CAUSED BY AVALANCHE ROAD CLOSURES.

ON CLOSURE DAYS, TRAVEL TIMES FROM I-215 TO ALTA RANGE FROM **45 TO 120 MINUTES** COMPARED TO **28 MINUTES** UNDER IDEAL CONDITIONS.

YEARLY LITTLE COTTONWOOD CANYON CLOSURE HOURS DUE TO AVALANCHE MITIGATION



CURRENT AVALANCHE HAZARD INDEX (AHI)

Hazard Category	AHI
Very Low	Less than 1
Low	1 to 10
Moderate	10 to 40
High	40 to 150
Very High	Greater than 150

← LCC AHI=90 (Mitigated)
← LCC AHI=7,304 (Unmitigated)

Source: Dynamic Avalanche Consulting 2018

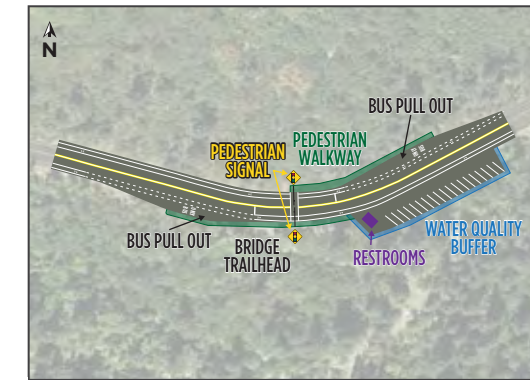
AVALANCHES POSE A SAFETY RISK TO ROADWAY USERS. LITTLE COTTONWOOD CANYON HAS THE HIGHEST AVALANCHE DANGER IN THE U.S.

INITIAL EVALUATION FOR IMPROVING CANYON ROADWAY RELIABILITY

Avalanche Mitigation Screening Criteria	
Improve avalanche related roadway reliability and safety in 2050	<ul style="list-style-type: none"> Substantially reduce number of hours and/or days that avalanches delay users Substantially reduce the avalanche hazard for roadway users

IMPROVING ROADWAY SAFETY AND TRAILHEAD PARKING RELATED CONGESTION

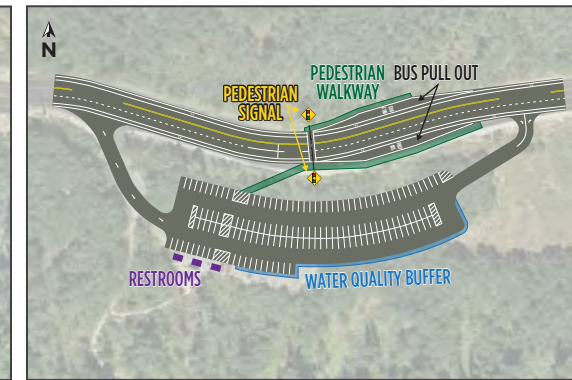
PARKING CONCEPT BRIDGE TRAILHEAD



PARKING CONCEPT LISA FALLS TRAILHEAD



PARKING CONCEPT WHITE PINE TRAILHEAD



NEED TO IMPROVE TRAILHEAD PARKING

- Pedestrian conflicts from parked cars on side of the road
- Cars parked on roadway shoulder force bicyclists into the travel lanes
- Increases sedimentation into watershed from damaged roadway shoulder
- Creates informal non-designated trailheads
- Informal trailheads contribute to erosion, mineral soil loss, the spread of weeds and loss of native vegetation

INITIAL EVALUATION FOR IMPROVING TRAILHEAD PARKING

Trailhead Parking Screening Criteria	
<ul style="list-style-type: none"> Improve roadway safety by reducing conflicts Reduce parking-related congestion 	<ul style="list-style-type: none"> Improve parking at existing trailheads to support travel modes while improving safety Reduce traffic conflicts at existing trailhead locations Keep parking levels at year 2000 levels

WHAT TRAILHEAD OPTIONS WOULD YOU CONSIDER?

Alternative	Eliminate On-Road Parking?	Transit Stops?*	Change Trailhead Parking?
No-Action	No	No	No
Alternative 1	Yes, within ¼ mile radius of trailheads	Yes	No
Alternative 2	Yes, within ¼ mile radius of trailheads	Yes	Yes, trailhead parking will accommodate the on-road parking eliminated within a ¼ mile radius of the trailheads
Alternative 3	Yes, from canyon entrance to Snowbird Entry 1	Yes	Yes, trailhead parking will accommodate the on-road parking eliminated within a ¼ mile radius of the trailheads

*Transit stops will accommodate future transit

LITTLE COTTONWOOD CANYON EIS ENVIRONMENTAL CHECKLIST

April 3, 2019

FAST ACT - Lead Agency for a project in consultation with participating agencies, shall develop, as appropriate, a checklist to help project sponsors identify potential natural, cultural, and historic resources in the area of the project.

Resource or issue	Is the resource or issue present in the area?	Would there be impacts on the resource?
Sensitive biological resources	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Wildlife corridors	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Wetland areas	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Riparian areas/Streams	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
100-year floodplain	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Prime or unique farmland or farmland of statewide or local importance	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Visual resources	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Designated scenic road/byway	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Archaeological resources	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Historical resources	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable

Resource or issue	Is the resource or issue present in the area?	Would there be impacts on the resource?
Section 4(f)/6(f) wildlife ¹² and/or waterfowl refuge, historic site, recreational site, park	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Water bodies/watery quality - 303(d) listed for metals - Impacts to culinary water supply	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Existing development	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Planned development	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Title VI / environmental justice populations	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Utilities	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Hazardous materials - Dumps at Grit Mill, Tanner capped heavy metal soil	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Sensitive noise receivers	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Air quality	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable
Other (list) - Watershed - Business/economy - Local resident access - Wildfire hazard	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Not applicable

¹² Section 4(f)/6(f) of the U.S. Department of Transportation Act of 1966 (49 U.S. Code § 303, as amended); see <[Section 4\(f\)](#)>.