



# EXECUTIVE SUMMARY

## PURPOSE AND NEED

### PROJECT BACKGROUND

The Geneva Road Environmental Impact Statement (EIS) studies proposed improvements to two major roadways, Geneva Road and a portion of Provo Center Street, both of which are part of SR-114 and are referred to collectively hereinafter as "Geneva Road." The project begins at the intersection of Provo Center Street and I-15 and continues west along Center Street to Geneva Road, then north along Geneva Road to State Street (SR-89) in Pleasant Grove. The project study area includes portions of Provo, Orem, Vineyard, Lindon, and unincorporated Utah County between I-15 on the east and Utah Lake on the west (see Figure ES-1). However, since the proposed improvements would be limited to Geneva Road (see Chapter 2 - Alternatives), the environmental analysis of certain resources in this EIS is defined by the corridor study area (see Figure 3-2).

This EIS is being conducted to assist federal, state, and local decision makers in objectively evaluating proposed courses of action that would satisfy the operational and safety goals of the Geneva Road corridor.

### PURPOSE AND NEED OF THE PROPOSED ACTION

The primary purpose of the Proposed Action is to improve regional and local traffic mobility for north-south travel in central Utah County, with secondary purposes of increasing safety by correcting design deficiencies and enhancing opportunities for intermodal facilities on Geneva Road by providing a cross-section that can better accommodate mass transit (buses), bicycles, pedestrians, trails, and other alternative modes of travel.



Figure ES-1 Project Study Area

PURPOSE AND NEED

The needs that support and correlate to the project's primary and secondary purposes are:

- **Sufficient capacity for increased travel demand** - traffic volumes on many of the two and three-lane portions of Geneva Road currently meet or exceed the existing capacity of the roadway, resulting in delays and congestion, with 2030 traffic volumes projected to range from 13,000 to 38,000 vehicles per day.
- **Improved system linkage** - Geneva Road is the only north-south arterial roadway west of I-15 in Utah County and serves as the main transportation access for that area.
- **Correct existing roadway design deficiencies** - the roadway in the project area does not have a consistent cross-section, varying from two to three to five lanes with inconsistent and narrow shoulders, curb and gutter, and intermittent sidewalk, much of which does not meet current design standards. There are also alignment deficiencies where the minimum curve radii is incompatible with the posted speed limit.
- **Reduce accidents** - certain sections of the roadway experience higher and more severe than expected accident rates.
- **Continuous pedestrian and bicyclist facilities (trails and sidewalks)** - there are no existing north-south trails in the project area and only intermittent sidewalks, many of which are substandard, deteriorated, or overtaken by the natural ground and/or vegetation.
- **Improved transit-compatible facilities** - an expanded UTA bus network is scheduled for the entire length of Geneva Road, which requires a minimum 8-ft shoulder along the roadway to accommodate the buses.

For additional information, see Chapter 1 - Purpose and Need.

## OTHER MAJOR GOVERNMENTAL ACTIONS PROPOSED FOR THE AREA

There are several major projects proposed for this area, as follows:

- Commuter Rail
- New Bus Rapid Transit route on University Parkway
- SR-92: widen existing roadway from I-15 to SR-146
- Provo Westside Connector (Airport Road): build new road from the Provo Airport to I-15
- State Street: widen State Street from 2000 North in Orem to 100 East in American Fork
- Springville Interchange: improve interchange on SR-77
- North Utah County East-West Connector (Pioneer Crossing): build new road north of Utah Lake from Redwood Road to I-15
- I-15: capacity and safety improvements from 12300 South in Salt Lake County to the South Payson Interchange
- Redwood Road: widen Redwood Road from Bangerter Highway to the southern limits of Saratoga Springs
- Utah Lake Transportation Study: feasibility study for a raised highway to traverse Utah Lake
- State Street Railroad Bridge, Pleasant Grove: widen State Street and replace railroad bridge
- SR-114, 400 South Railroad Bridge
- Vineyard Connector: build new roadway between Orem and American Fork west of I-15

## ALTERNATIVE DEVELOPMENT AND SCREENING

A wide range of alternatives was developed and evaluated as part of this study. The evaluation process consisted of a two-stage analysis in which the alternatives developed were first evaluated for their ability to meet the purpose and need for the project and the alternatives that survived that screening level were evaluated to see if any of them would result in unacceptable impacts to critical environmental resources.

### SCREENING #1 - PURPOSE AND NEED

The alternatives were measured for their ability to meet or exceed Level of Service (LOS) D on Geneva Road in the year 2030, as well as for their ability to meet current design standards and to provide improved facilities for pedestrians, bicycles, and transit needs. The alternatives evaluated included:

- No-action Alternative
- Transportation System Management (TSM) Alternative
- Transit Alternative
- Improve Other Existing/Planned Roadways Alternative
- Build a New Road on a New Location Alternative
- Three-Lane Geneva Road Alternative
- Five-Lane Geneva Road Alternative
- Seven-Lane Geneva Road Alternative
- Combination of Lanes on Geneva Road Alternative (aka the Geneva Road Alternative)<sup>1</sup>

This analysis concluded that the No-action Alternative, TSM Alternative, Transit Alternative, Improve Other Existing/Planned Roadways Alternative, and Build a New Road on a New Location Alternative would not meet the primary or secondary purpose and need for the project. While the No-action Alternative fails to meet the purpose and need of the project, it has been selected for further study because it satisfies the National Environmental Policy Act (NEPA) “no-action” requirement and can be used as a baseline to compare impacts with the build alternatives. This analysis also concluded that the Three-Lane and Five-Lane alternatives would meet the secondary purpose and need for the project but not meet the primary purpose and need for the project by not being able to provide LOS D or better through the entire corridor study area. The Seven-Lane Alternative meets the primary and secondary purpose and need for the project because it would improve regional and local traffic mobility by providing LOS D or better on all of Geneva Road in year 2030. However, the environmental impacts of a seven-lane road, where not required by traffic, would be too great (see Section 2.2.1 - Purpose and Need Screening Analysis in Chapter 2 - Alternatives). Therefore, all of the alternatives except the Combination of Lanes on Geneva Road Alternative and the No-action Alternative were eliminated from further consideration in this EIS.

### SCREENING #2 - CRITICAL ENVIRONMENTAL RESOURCES

The Geneva Road Alternative was then screened for its potential impacts to critical environmental resources in the corridor study area. The environmental resources that were included in this analysis were relocations and Section 4(f) resources. This analysis consisted of modifications to the proposed cross-section and horizontal alignment of the roadway in order to avoid Section 4(f) resources and relocations or, where avoidance was not possible, to minimize impacts. Two options were developed between 135 North and 1600 North in Orem, due to the uncertainty as to the future plans for the railroad tracks west of Geneva Road in this area. Both options are included in this EIS to enable the EIS process to proceed without undue delay (see Section 2.3.1 - Critical Environmental Resources and

<sup>1</sup> The Geneva Road Alternative was developed during the Alternatives Screening process when it became clear that no one lane configuration would be able to meet the Purpose and Need for the project for the entire length of the corridor study area.

Analysis Methods in Chapter 2 - Alternatives). These options are:

- Option #1 - Widen to the West: This option would be implemented if the railroad is re-aligned farther to the west and would straighten out the existing S-curve at 400 North, then widen Geneva Road to the west until approximately 1600 North.
- Option #2 - Widen to the East: This option would be implemented if the railroad remains in its current location and would modify the existing S-curve at 400 North so that the horizontal curvature meets design standards for the posted speed limit, then widen to the east to keep the required 25-ft offset from the railroad.

For more detailed information about Option #1 and Option #2 see Section 2.3.3 Roadway Alignment and Cross-Section Analysis in Chapter 2 - Alternatives and Sheet 2-14 through 2-17 in Volume 2.

**IDENTIFICATION OF THE PREFERRED ALTERNATIVE**


UDOT identified the Geneva Road Alternative as the alternative which best meets the purpose and need for the project and includes measures to minimize impacts to critical environmental resources. Therefore, UDOT selected the Geneva Road Alternative (including both Option #1 and Option #2) as the UDOT Preferred Alternative. The UDOT Preferred Alternative consists of the following (see Sheet 3-1 through 3-44 in Volume 2):










- Roadway improvements to add travel lanes as required to meet LOS D in the year 2030.
- Intersection improvements such as adding turn lanes, in order to meet LOS D for peak hour traffic conditions in the year 2030.
- Cross-section improvements to meet minimum standards and/or more desirable standards in most locations.
- Improvements to the horizontal alignment at 400 North in Orem to remove or alter the S-curve so as to meet design standards for the posted speed limit.
- Sidewalk, trail, and shoulder improvements to enhance pedestrian and bicycle access and pullouts for transit use.









**ENVIRONMENTAL CONSEQUENCES**



A brief summary of the environmental impacts anticipated to result from the Preferred Alternative are shown in Table ES-1. The No-action Alternative is used as the baseline for discussing these impacts.

**Table ES-1 Environmental Effects Comparison Summary**

Environmental Issue	No-Action Alternative	Preferred Alternative
<p><b>Land Use</b></p> 	<ul style="list-style-type: none"> <li>• No impact to conservation easements</li> <li>• No impact to existing, planned parks, or LWCF land</li> <li>• Land adjacent to Geneva Road would most likely continue to undergo planned land use changes</li> </ul>	<ul style="list-style-type: none"> <li>• Option #1 would convert 7.3-acres agricultural, 5.2-acres commercial, and 26.9-acres residential property to roadway use</li> <li>• Option #2 would convert 7.3-acres agricultural, 20-acres commercial, and 23.7-acres residential property to roadway use</li> <li>• No impact to conservation easements</li> <li>• No impact to existing, planned parks, or LWCF land</li> </ul>

Environmental Issue	No-Action Alternative	Preferred Alternative
<b>Farmlands</b> 	<ul style="list-style-type: none"> <li>No impact to farmlands along the corridor</li> </ul>	<ul style="list-style-type: none"> <li>Option #1 and Option #2 would convert 7.3 acres of farmland to roadway use</li> </ul>
<b>Social Conditions</b> 	<ul style="list-style-type: none"> <li>Would leave existing social conditions and trends intact</li> <li>Increased traffic congestion</li> </ul>	<ul style="list-style-type: none"> <li>Social characteristics would not be altered in a meaningful way</li> <li>Some residential relocations</li> </ul>
<b>Environmental Justice</b> 	<ul style="list-style-type: none"> <li>Would not produce disproportionately high and adverse human health and environmental effect on minority or low-income populations</li> </ul>	<ul style="list-style-type: none"> <li>Would not produce disproportionately high and adverse human health and environmental effect on minority or low-income populations</li> </ul>
<b>Relocations</b> 	<ul style="list-style-type: none"> <li>No relocations would be required</li> </ul>	<ul style="list-style-type: none"> <li>Option #1 would potentially relocate 35 residences and 7 businesses</li> <li>Option #2 would potentially relocate 35 residences and 20 businesses</li> </ul>
<b>Economic Conditions</b> 	<ul style="list-style-type: none"> <li>Increased traffic congestion may influence the type of economic development in the area</li> </ul>	<ul style="list-style-type: none"> <li>Relocation of up to 20 businesses</li> <li>Improved business access and reduced traffic congestion</li> </ul>
<b>Pedestrians and Bicyclists</b> 	<ul style="list-style-type: none"> <li>Mobility and safety would not be improved</li> <li>Safety concerns regarding school crossings for Lakeview Elementary School would not be addressed</li> </ul>	<ul style="list-style-type: none"> <li>Would improve mobility and safety for pedestrians and bicyclists on the Geneva Road corridor</li> </ul>
<b>Air Quality</b> 	<ul style="list-style-type: none"> <li>Potential exceedance of CO NAAQS</li> <li>Not expected to cause new violations of PM<sub>10</sub> NAAQS</li> </ul>	<ul style="list-style-type: none"> <li>Meets the regional air quality conformity requirements</li> <li>Not expected to cause new violations of CO or PM<sub>10</sub> NAAQS</li> </ul>
<b>Noise</b> 	<ul style="list-style-type: none"> <li>Increased noise averaging 0.6 dBA</li> </ul>	<ul style="list-style-type: none"> <li>Increased noise averaging 2 dBA</li> </ul>
<b>Water Resources</b> 	<ul style="list-style-type: none"> <li>Drainage conditions would remain the same</li> <li>Storm water would continue to flow through existing storm drain systems in areas where they are present, and where they are not</li> <li>Storm water would continue to infiltrate into the ground</li> </ul>	<ul style="list-style-type: none"> <li>The impervious area would increase from 65 acres to 95 acres. This increase in impervious area would raise the 10-year peak flow from an estimated 118 cfs along the Geneva Road corridor</li> <li>Water quality would be improved through the addition of curb and gutter, catch basins, storm drain pipelines, and detention basins</li> </ul>

Environmental Issue	No-Action Alternative	Preferred Alternative
<b>Wetlands</b> 	<ul style="list-style-type: none"> <li>No impact</li> </ul>	<ul style="list-style-type: none"> <li>Both Option #1 and Option #2 would impact approximately 0.88 acres of wetland</li> </ul>
<b>Floodplains</b> 	<ul style="list-style-type: none"> <li>No impact</li> </ul>	<ul style="list-style-type: none"> <li>No impact</li> </ul>
<b>Wildlife</b> 	<ul style="list-style-type: none"> <li>No impact</li> </ul>	<ul style="list-style-type: none"> <li>No impact</li> </ul>
<b>Threatened and Endangered Species</b> 	<ul style="list-style-type: none"> <li>No impact</li> </ul>	<ul style="list-style-type: none"> <li>No impact</li> </ul>
<b>Historic and Archaeological Resources</b> 	<ul style="list-style-type: none"> <li>No impact</li> </ul>	<ul style="list-style-type: none"> <li>Option #1 would have 2 No Adverse Effects to archaeological resources and 5 Adverse and 54 No Adverse Effects to architectural resources</li> <li>Option #2 would have 1 No Adverse Effect to an archaeological resource and 5 Adverse and 54 No Adverse Effects to architectural resources</li> </ul>
<b>Hazardous Waste Sites</b> 	<ul style="list-style-type: none"> <li>Identified hazardous waste sites would not be affected</li> </ul>	<ul style="list-style-type: none"> <li>A strip of property in front of a Superfund Site, Parish Chemical Company, will be required for roadway right-of-way. However, the Preferred Alternative will not require any property of the actual working facility and it is not expected that any hazardous waste materials will be encountered during construction activities</li> <li>There will be no impact to any other hazardous waste sites</li> </ul>
<b>Visual Conditions</b> 	<ul style="list-style-type: none"> <li>Undeveloped land would continue to transition into commercial and residential use in accordance with approved land use master plans and zoning maps</li> </ul>	<ul style="list-style-type: none"> <li>Would build a wider facility throughout the corridor with some structures and vegetation being removed that currently exist within the proposed right-of-way</li> </ul>
<b>Invasive Species</b> 	<ul style="list-style-type: none"> <li>No increased potential for invasive species</li> </ul>	<ul style="list-style-type: none"> <li>Potential to introduce invasive species exists due to construction activities. This would be reduced by mitigation measures</li> </ul>

Environmental Issue	No-Action Alternative	Preferred Alternative
<b>Wild and Scenic Rivers</b> 	<ul style="list-style-type: none"> <li>No Impact</li> </ul>	<ul style="list-style-type: none"> <li>No Impact</li> </ul>
<b>Energy</b> 	<ul style="list-style-type: none"> <li>No construction energy requirements.</li> <li>Similar operational energy requirements to the Preferred Alternative</li> <li>Higher fuel consumption due to increased congestion and lower vehicle efficiency</li> </ul>	<ul style="list-style-type: none"> <li>Construction energy requirements</li> <li>Similar operational energy requirements to the No-action Alternative</li> <li>Lower fuel consumption due to decreased congestion and higher vehicle efficiency</li> </ul>

### SECTION 4(F) EVALUATION

Section 4(f) refers to Section 4(f) of the Department of Transportation Act of 1966, which provides protection to public parks and recreation areas, wildlife and waterfowl refuges, and significant historic sites from impacts by federal transportation actions. There are nine parks within or near the corridor study area that qualify for Section 4(f) protection. See Section 4.2.1 - Parks and Recreational Areas in Chapter 4 - Section 4(f) Evaluation. There are also 105 cultural resources located in the corridor study area, 101 architectural properties and three archaeological sites. See Section 4.2.2 - Cultural Resources in Chapter 4 - Section 4(f) Evaluation.

There is no feasible and prudent alternative that would completely avoid impacts to Section 4(f) resources. For the Preferred Alternative Option #1 and Option #2, there would be one *de minimis* use to the Utah Southern/Union Pacific Railroad under Option #1 only and no Section 4(f) non-*de minimis* uses to any other archaeological sites under either Option (see Table 4-7 and Figure 4-4 in Chapter 4 - Section 4(f) Evaluation). Of the 101 architectural properties identified there would be a non-*de minimis* use to five architectural properties by the Preferred Alternative for both Option #1 and Option #2 (see Table 4-8 and Figure 4-5 in Chapter 4 - Section 4(f) Evaluation).

### AREAS OF CONTROVERSY

The potential for public controversy over this project was an important factor in the decision to prepare an EIS. Coordination with the public and municipalities has been ongoing and consistent to help identify and anticipate any issues that may be controversial with the project. Public input was taken on the Purpose and Need for the project and on the range on alternatives to be evaluated, which helped identify the issues that the public had with regards to this project and their ideas as to possible solutions.

### UNRESOLVED ISSUES

There are no unresolved issues in connection with this EIS.

## OTHER REQUIRED GOVERNMENTAL ACTIONS

- **Storm Water General Permit for Construction Activities:** A permit which grants authorization to discharge under the Utah Pollutant Discharge Elimination System (UPDES) is required for projects that disturb more than one acre of surface area during construction. As part of the requirements for this permit, a Storm Water Pollution Prevention Plan (SWPPP) will be developed and incorporated into the final design of this project. A Notice of Intent (NOI) form will be submitted to the Utah Department of Water Quality (UDWQ) prior to any construction. Upon completion of the proposed project, a Notice of Termination (NOT) will be submitted to the same agency.
- **Section 404 of the Clean Water Act - Wetland Permit:** The proposed project needs to comply with Section 404(b)(1) guidelines. A Section 404 Permit is required for discharging any material or dredging below the ordinary high water mark in waters of the United States, including wetlands. Wetlands will be impacted by the Preferred Alternative (see Section 3.6.1 - Wetlands) and may require an Individual Permit from the United States Army Corps of Engineers (USACE).
- **Air Quality Permit for Construction Activities:** A permit for air quality impacts during construction is required to control fugitive dust and emissions. This permit would be obtained from the Utah Department of Air Quality (UDAQ) by the contractor prior to the start of construction.
- **Cultural Requirement:** A Memorandum of Agreement (MOA) between Orem, FHWA, UDOT, and SHPO has been agreed to and signed to resolve adverse effects to historic properties.