

# Chapter 1: Purpose and Need

## 1.1 INTRODUCTION

The Federal Transit Administration (FTA), the Utah Transit Authority (UTA), the Utah Department of Transportation (UDOT), and the Federal Highway Administration (FHWA), in cooperation with Mountainland Association of Governments (MAG), have partnered to study transit and roadway infrastructure improvements in Utah County, Utah. The Provo-Orem Bus Rapid Transit (BRT) project was initiated in 2007 as a multi-modal project incorporating high-capacity, fixed-guideway transit and roadway infrastructure improvements. The project is needed because of growing population, employment, student enrollment, and travel demand in the study area; insufficient transit capacity to serve growing demand; poor transit reliability due to congested roadways; and lack of connectivity to Interstate 15 (I-15) and UTA's FrontRunner commuter rail stations in Orem and Provo.

In 2011, an Environmental Assessment (EA) (hereafter referred to as the 2011 EA) was prepared for the project and included both FTA actions for implementation of the BRT system and FHWA actions for roadway improvements. FHWA and UDOT were added as lead agencies after the initiation of the project because the roadway needs are functionally interdependent with transit, and the overall travel capacity occurred within the same geographic proximity. While the FHWA roadway improvements outlined in the 2011 EA are an independent action and would have been necessary with or without the BRT system, the multi-modal coordination between the two agencies ensures that improvements implemented by one agency accommodate the improvements planned by the other agency. FHWA issued a Finding of No Significant Impact (FONSI) in 2011 for the roadway improvements as a standalone action independent of the implementation and funding of the BRT system as described in this EA. Funding for the non-transit roadway improvements is separate from the transit funding request. The BRT system described in this EA will utilize the non-transit roadway improvements included in the FHWA FONSI.

FTA did not issue a FONSI for the transit components identified in the 2011 EA because preliminary engineering efforts were ongoing and construction funds were not committed. Since 2011, the design of the Preferred Alternative has been refined as a result of continued preliminary engineering and in response to public and stakeholder comments (see Chapter 2 for further details).

This EA is being led and prepared by UTA and FTA, in coordination with UDOT, Provo City, Orem City, and MAG. UTA is proposing to construct and operate the Provo-Orem BRT project. This EA describes the proposed transit improvements and associated impacts of the BRT project that would receive funding through FTA in the foreseeable future. UTA intends to request funding for the transit improvements under FTA's Capital Improvement Grant (CIG) program. UTA is working with local partners to identify and secure local funds to be used as a local match for a federal grant. As such, this project must comply with FTA CIG requirements as well as National Environmental Policy Act (NEPA) requirements. This EA has been prepared according to the Council on Environmental Quality regulations for implementing NEPA (Title 40 of the Code of Federal Regulations [CFR] Parts 1500 to 1508) and FTA's processes for implementing NEPA (23 CFR 771). FTA determined that an EA was the appropriate level of

environmental documentation as the extent of project impacts were largely unknown but improvements would primarily stay within the existing transportation right-of-way with only minor locations of right-of-way widening. In addition, as part of this NEPA review, the requirements of other environmental laws and executive orders are addressed as they apply to specific parts of this EA.

This EA is being circulated for review to interested parties, including the general public, community groups, the business community, elected officials, and public agencies according to federal and state requirements. UTA will continue engineering and environmental studies and will prepare responses to address the comments offered during the public review period. In accordance with federal NEPA regulations, the environmental effects of a project must be fully disclosed and considered before the project can advance to the federal funding stage, which includes the final design of the project, acquisition of right-of-way, acquisition of equipment, and construction of the project facilities and system.

## **1.2 STUDY AREA**

The study area extends approximately a half-mile from the project centerline and traverses Orem and Provo in Utah County, Utah, for approximately 10.5 miles, as shown on Figure 1-1 (at the end of the chapter). The northern terminus is the Orem Intermodal Center. The southern terminus is at the junction of University Avenue and I-15, near a large commercial campus that houses Novell, a large employer in Provo. These termini were based on the need for a connection from FrontRunner commuter rail to Utah Valley University (UVU), Brigham Young University (BYU), and downtown Orem and Provo. This need was identified through scoping efforts for the 2011 EA as well as the results of the 1999 *Inter-Regional Corridor Alternatives Analysis*, the 2005 *Provo-Orem Rapid Transit Feasibility Study*, and MAG's 2030 *Regional Transportation Plan*. In addition, the study area includes transit-oriented development (TOD) zones in Orem and Provo. These zones encourage mixed land uses consisting of residential, commercial, and office space centered around transit stations.

## **1.3 PROJECT PURPOSE**

The overall purpose of the project is to increase travel capacity by providing higher-capacity, high-quality, reliable transit service. Specifically, the purpose is to:

- Increase travel capacity to accommodate growing population, employment, student enrollment, and travel demand projected by the year 2040.
- Improve transit competitiveness with automobile traffic in the corridor by improving transit reliability and reducing transit travel time.
- Improve transit connections to and from FrontRunner commuter rail.

## **1.4 STATEMENT OF PROJECT NEED**

The project is needed because of growing population: Orem's population is projected to increase 27 percent, and Provo's population is projected to increase 35 percent by 2040. Employment, student enrollment, and travel demand are also steadily increasing in the study area. Coupled with insufficient transit capacity to serve growing demand and poor transit reliability due to congested roadways, the travel demand needs of residents and commuters in the study area are expected to be greater than the capacity of the existing transportation system in 2040.

The needs result from the following problems:

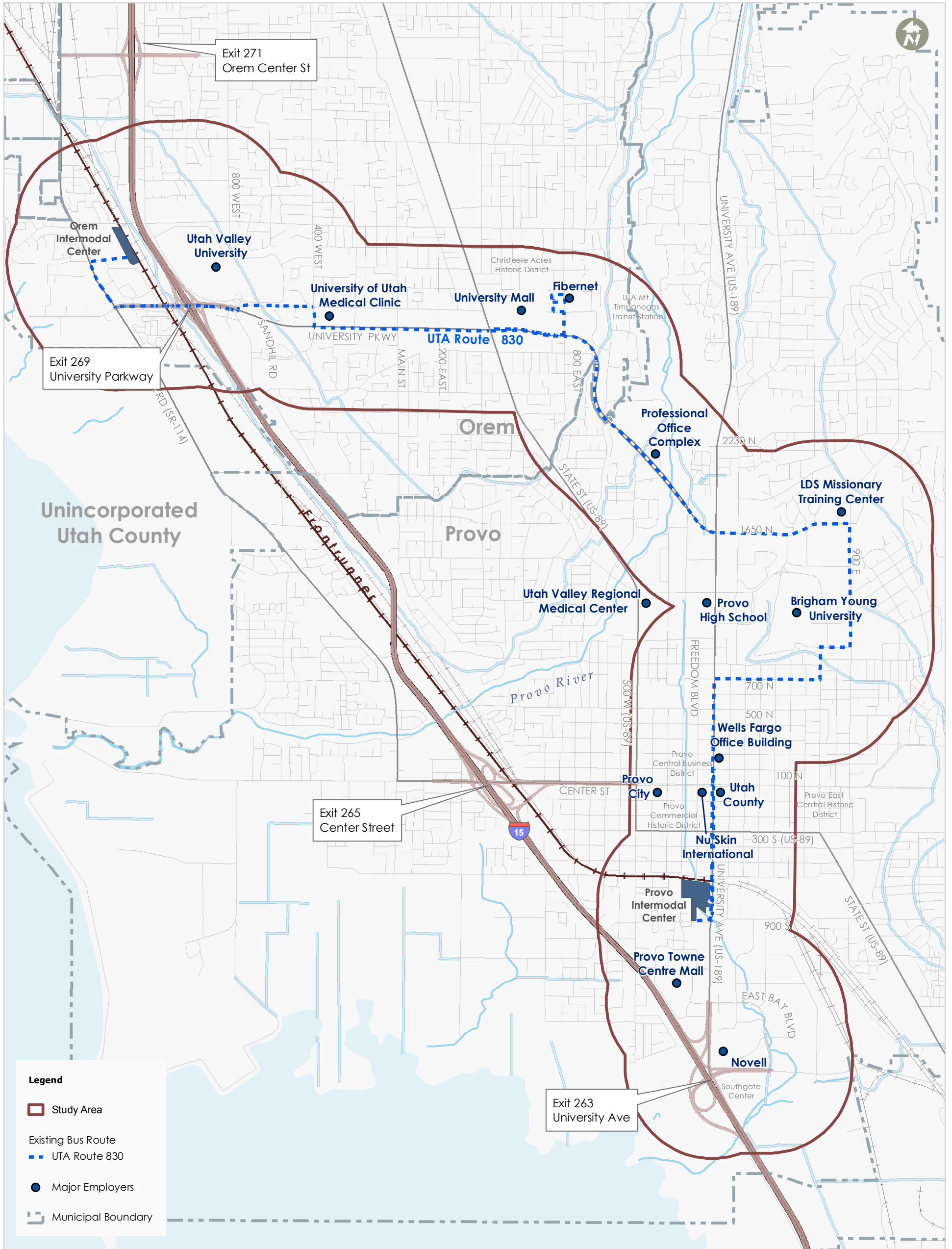
- **Insufficient Transit Capacity:** Peak-hour demand, including UTA bus route 830 (shown on Figure 1-1 at the end of the chapter), is projected to exceed the peak capacity of the local bus network. Simply adding more buses to the current bus routes would not adequately increase capacity because buses could not practically meet schedule headways in mixed-flow operating conditions.
- **Poor Transit Reliability and Travel Time:** The reliability and travel time of local bus service is inadequate to serve FrontRunner commuter rail and local trips. The reliability and travel time of local bus service will worsen in the future as roads become more congested.
- **Lack of Alternatives to Auto Travel:** Often students and low-income individuals do not own personal vehicles. High-quality transportation alternatives available at a low cost are needed to provide additional mobility options and allow access to essential services and employment opportunities.

## 1.5 PROJECT HISTORY

The following plans were developed and are in place to support the proposed project:

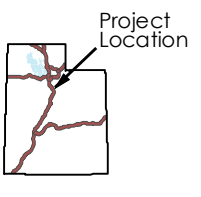
- *Inter-regional Corridor Alternatives Analysis* (1999)
- *Provo-Orem Rapid Transit Feasibility Study* (2005)
- *MAG's 2030 Regional Transportation Plan* (2007) and *2040 Metropolitan Transportation Plan* (2011)
- *Orem City General Plan* (updated 2011)
- *Provo City General Plan* (2010)
- *Provo City Code* (2009)
- *Utah Statewide Transportation Improvement Program* (2009–2014 and 2014–2019)

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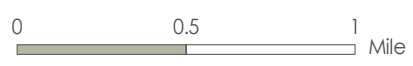


**Legend**

- Study Area
- Existing Bus Route
- UTA Route 830
- Major Employers
- Municipal Boundary



Map projection is UTM12N NAD83. Base data layers from the State of Utah Automated Geographic Reference Center (AGRC).



**Figure 1-1  
Study Area  
Existing  
Conditions**

