I-80 CORRIDOR STUDY TECHNICAL REPORT

Appendix F
Summary of Transportation Planning Efforts

PREPARED FOR
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Technical Memorandum 4
Summary of Transportation Planning Documents and Land Use Planning Efforts

1. Introduction

The I-80 Corridor Study area encompasses I-80 west from the California state line to the West McCarran Boulevard (SR 651) Interchange, and I-80 east from the East McCarran Boulevard (SR650) Interchange in the City of Sparks to east of the Wadsworth-Pyramid (SR 427) Interchange. The study's intent is to provide decision-makers an action plan that will define future transportation needs along the corridor. It is also intended to provide participating agencies with a range of workable and cost-effective transportation alternatives that address current and future needs. These alternatives will be assessed for their socioeconomic, community, environmental, and fiscal impacts.

2. Document Purpose

The study will address concerns related to the need for improving transportation along the I-80 corridor by evaluating future land use demands while protecting and using existing resources. This document provides the Study Group with a summary of the transportation planning documents and land use planning efforts accomplished by state and local entities. This summary will be updated as new and additional information is received from the local and state entities.

3. Related Transportation Plans and Programs

City of Reno Master Plan (Draft). The Great City Plan, currently pending Truckee Meadows Regional Plan conformance review, reflects the City's *Making It Great* initiative, as well as the 2007 update of the Truckee Meadows Regional Plan as required by state law.

The plan has three levels of applicability: citywide plans (including spheres of influence), center and corridor plans, and neighborhood plans. Citywide Plans include the Policy Plan; Population Plan; Conservation Plan; Housing Plan; Land Use Plan; Public Services, Facilities, and Infrastructure Plan; Open Space and Greenways Plan; and Historic Resources Plan. The Land Use Plan is intended to provide guidance for development and redevelopment for the next 20 years. Its objective is to revitalize former auto-oriented corridors by addressing mixed-use and transit-oriented developments. Master-planned communities and gaming enterprise districts are also focus areas in the Land Use Plan. The Land Use Plan is based on a regional development pattern that follows transportation corridors to the south, west, and north. Between the corridors are significant areas of open space and lower-intensity development. The pattern of development in the City reflects the following features:

- Centers
- Transit-Oriented Development (TOD) Corridors
- Neighborhoods
- Truckee River
- Spheres of Influence

The transportation objective of the Great City Plan is to increase the percentage of transit use. This will be achieved by:

- Promoting TOD corridors and mixed-use developments.
- Promoting "complete street" concepts with travel lanes for transit, automobiles, and bicycles along with on-street parking, landscaped parkways, sidewalks, and window shopping areas.
- Designing new roadway projects that support TOD concepts including crosswalks, bicycle lanes, and transit amenities.
- Promoting and making transit available with significant amenities, such as park-and-ride, benches, passenger-waiting shelters, bus turn-outs, trash containers, and safe pedestrian facilities.
- Encouraging a grid system of streets with alleys, where appropriate.
- Reviewing and updating infrastructure improvements and capital improvement plans to support and encourage development along the TOD corridors.

City of Sparks Land Use Plan. The City of Sparks is in the process of updating their 2002 Master Plan.

Verdi Area Plan (Draft). The Verdi Area Plan responds to a citizen-based desire to identify, implement, and preserve the community character that has evolved throughout the Verdi area. The plan conveys the community's desire that its commercial center, long in a state of decline, should be encouraged to develop as a village center serving local citizens, day shoppers, and tourists. The village center should incorporate a historical character to differentiate it from other commercial centers. Development should be grounded in small- to medium-sized businesses providing variety not found in large national and franchise operators. The village center is referred to in the document as the Suburban Character Management Area (SCMA). The remaining rural areas are referred to as the Rural Character Management Area (RCMA).

The plan's land use goal for the Verdi RCMA requires a pattern of land use designations that will implement and preserve the community's character. The plan's land use goals for Verdi SCMA encourage a mix of land uses and densities to promote a balanced community with residential and commercial compatibility through architectural guidelines, signage and development standards, and business and recreational area guidelines. The development of large apartment and/or condominium complexes is discouraged.

The plan's transportation goal for the Verdi RCMA requires a safe and efficient system that provides significant connections to the greater region, with access to commercial services, public lands, and employment and recreational opportunities in the community.

The plan's transportation goals for the SCMA will require property owners/developers to dedicate right-of-way for ultimate street widths. Within the SCMA, direct access onto major arterials will be prohibited; turning movements will be limited through the use of raised medians; curb parking on arterials and collectors will be prohibited by acceleration and deceleration lanes, signals, etc.; and a traffic and parking plan will be adopted that develops the historic downtown as a primarily pedestrian area.

Regional Transportation Commission, Washoe County (RTC) 2030 Regional Transportation Plan (RTP). The RTP proposes highway improvements that focus on maintaining the existing street and highway system and providing additional capacity for existing and future residents and businesses. The RTP also proposes bicycle, pedestrian, and public transportation improvements. It also contains transportation system management and transportation demand management and the transportation control measures necessary to implement them.

Key projects in and around the I-80 corridor study area that are included in the RTP are summarized in Table 1.

Table 1. Key Projects: 2030 RTP Washoe County

Segment	Limits	Project	Estimated Cost
I-80	at Garson Rd	Reconstruct Interchange	$25,000,000
I-80	at Milepost 33 (Reno-Tahoe Industrial)	Construct Interchange	$12,080,000
I-80	at Patrick	Improve Interchange	$5,000,000
I-80	at Tracy Clark Interchange	Construct Interchange	$25,000,000
I-80	Keystone Ave to Pyramid Hwy	Widen to 8 Lanes	$85,042,000
I-80	at I-580	Reconstruct Interchange	$140,522,000
I-80	Pyramid Hwy to Vista Blvd	Widen to 6 Lanes	$98,940,000
I-80	Robb Dr to Keystone Ave	Widen to 6 Lanes	$62,649,000

Truckee Meadows Regional Plan. Adopted on July 17, 2007, this is the third update of this plan, which is a cooperative effort involving a large number of agencies, organizations, and individuals. Reno, Sparks, Washoe County, and others implement the plan through their planning and regulatory efforts and capital improvement programs. The regional plan comprises the following four modules:

- Module 1: Direction and standards for how and where development occurs in the Truckee Meadows.
- Module 2: Management of natural resources.
- Module 3: Coordination of public services and facilities.
- Module 4: Plan implementation framework.

Short-Range Transit Program (SRTP) 2007–2011. The RTC's SRTP is a five-year transit-operating plan and capital program for public transit. The SRTP provides an overview of the current status of transit in Washoe County and a plan for improving the delivery of transit service. The regional goal is to increase the transit mode share from the current 2-3% of all trips to at least 6% of all trips. Service expansion will be also a high priority, to accomplish the goals of the 2030 RTP.

The following transit system improvements are planned for the next five years:

- Two new major transit centers will be online in Reno and Sparks: the RTC 4th Street Station and the RTC Centennial Plaza. They will replace the CitiCenter and CitiStation facilities.
- Significant improvements to the Sparks route structure will result from the RTC Centennial Plaza. Major revisions to south Reno service are likely as service is extended further south to Mt. Rose Highway.
- By FY 2010, to take advantage of RTC 4th Street Station opening, service will grow by 13,500 hours, with four new buses available for service. The new facility will accommodate more coaches than CitiCenter, allowing for new routes.
- By FY 2011, many features of the Bus Rapid Transit (BRT) project will be in place or in development along the South Virginia Street corridor. Features will include service that is more frequent, wider station spacing, transit signal priority, and improved reliability compared to regular fixed-route service.
- Other service improvements will focus on developing the public transit network as defined in the RTP. In many instances, this will require reallocating existing coverage service to productivity service to attain the plan's designated 80/20 split.

Nevada Statewide Long Range Multimodal Transportation Plan (NEVPLAN). The intent of this transportation plan, published in November 2002, was to provide a framework to identify and plan transportation needs through the next 20 years. The document provides an overview of related transportation plans and programs, committees, public participation, and socioeconomic characteristics of transportation systems in Nevada. The focus of the NEVPLAN is to establish goals, performance measures, and strategies to guide the planning, development, and preservation of the multi-modal transportation system in Nevada into this millennium. The NEVPLAN's six major policy goals are:

- Mobility and accessibility
- Safety
- Environmental
- Efficiency and effectiveness
- Technology
- Economic Development/Diversification

State Highway Preservation Report. This report is created biennially by the Nevada Department of Transportation to summarize the work for preserving the state highway system as required by Nevada Revised Statute 408.203(3). As stated in the 2007 Report, it also provides the legislature with a tool to discern whether highway-preservation taxes are adequate.

The report indicates that the backlog of pavement and bridge work increased $396 million to $795 million over the last biennium and under present funding it is expected to jump to $1.4 billion by 2010 and to $1.8 billion by 2019. This backlog is due to huge highway construction inflation that was not matched by revenue increases from gasoline taxes and vehicle registration fees, in addition to pavement expenditures that were less than deterioration costs over the past two years.

Currently 19% of the state-maintained highways surveyed are in need of overlay or reconstruction. NDOT's long-term action plan is to continue applying timely overlays before expensive reconstruction is needed for moderate- to high-volume roads and to further develop economical repair strategies for the low-volume roads.

Understanding that pavement funding planned for fiscal years 2007 through 2009 was inadequate to accommodate the long-term action plan, NDOT developed a short-term plan intended to:

- Maintain Nevada's interstate system at a high level of serviceability by applying timely overlays where possible, and reconstructing inferior segments.
- Maintain Nevada's non-interstate principal arterials by applying maintenance treatments such as chip seals and flush seals.
- Apply seal coats or other short-term treatments to all other routes.

Nevada bridges are relatively young and in good condition. The bridge preservation expenditures are approximately $16 million a year and are considered minimally adequate to preserve state-maintained bridges during the next five years. Considering that the useful life of bridges is approximately 50 years, NDOT expects increased costs in bridge preservation after 2010, when many bridges will be due for major work.

Nevada Statewide Transportation Improvement Program (STIP), Washoe County, 2007-2010. Annually NDOT develops a STIP, which is the instrument used to initiate the projects/programs resulting from the statewide transportation planning process. NDOT administers and implements programs for the planning, development, construction, and operation of the state's transportation system. NDOT's mission is to efficiently plan, design, construct, and maintain a safe and effective transportation system for Nevada's economic, environmental, and social needs. The transportation planning process sets the stage for fulfilling this mission by balancing needs with limited resources. The planning process sets long-range funding strategies statewide, and the transportation needs identified are used in developing a financially constrained STIP. Key projects in and around the I-80 corridor study area that are included in the STIP are summarized in Table 2.

Table 2. Key Projects: FY 2007-10, STIP Washoe County

Segment	Limits	Project	Estimated Cost
I-80	West of Tracy Clark Interchange	Construct Interchange	$25,000,000
I-80	at Garson Rd	Interchange Improvements	$24,950,000
I-80	at USA Parkway Interchange	Construct Interchange	$8,600,000
I-80	at Patrick	Interchange Improvements	$8,000,000
I-80	Keystone Ave to Pyramid Hwy	Widen to 8 Lanes	$85,042,000
I-80	at I-580	Reconstruct Interchange	$140,522,000
I-80	Pyramid Hwy to Vista Blvd	Widen to 6 Lanes	$98,940,000
I-80	Robb Dr to Keystone Ave	Widen to 6 Lanes	$62,649,000

Nevada Annual Work Program (AWP), Washoe County. The AWP lists all transportation projects in Washoe County that NDOT intends to work on during FY 2007-2009. It also includes a long-range element (LRE) for construction projects the state would like to have initiated within FY 2010 through FY 2016. Key projects in and around the I-80 corridor study area included in the AWP are summarized in Tables 3 and 4.

Table 3. Key Projects: FY 2008, AWP Washoe County

Segment	Limits	Project	Estimated Cost
I-80	at Garson Rd	Interchange Improvements	$24,375,000
I-80	at Patrick	Construct Interchange	$8,000,000
I-80	Reno Spaghetti Bowl	Safety Improvements	$4,900,000
I-80	Statewide	Freeway Management System	$2,250,000

Table 4. Key Projects: Long Range Element, AWP Washoe County

Segment	Limits	Project	Estimated Cost
I-80	at I-580	Reconstruct Interchange	$140,522,000
I-80	Pyramid Hwy to Vista Blvd	Widen to 6 Lanes	$98,940,000
I-80	Keystone Ave to Pyramid Hwy	Widen to 8 Lanes	$85,042,000
I-80	Robb Dr to Keystone Ave	Widen to 6 Lanes	$62,649,000
I-80	Statewide	Freeway Management System	$40,000,000

Nevada Statewide Intermodal Goods Movement Study, May 2000. This report summarized an initial attempt to examine Nevada's freight transportation system and optimize our strengths in the economic development and diversification process. The study focused on freight transportation systems and their use, problems associated with freight transportation, and relationships between freight transportation and the Nevada economy.

I-80 Rural Corridor Landscape and Aesthetic Plan. This plan provides landscape and aesthetic guidelines that are intended to guide physical changes for existing and new highway projects. These guidelines establish qualitative levels of design to meet the objective of each landscape design segment and assist in the successful revitalization and overall landscape and aesthetic improvement of the I-80 corridor. Landscape design segments define areas of similar character in which the same major design theme is applied. The I-80 rural corridor includes four landscape design segments: Sierra Nevada Passage, Sierra Nevada Great Basin Crossroad, Truckee River Passage, and Highway of the West.

Northern Nevada Regional ITS Architecture and Strategic Deployment Plan, September 2004. The purpose of this study was to establish a regional ITS architecture and develop an Integration and Strategic Deployment Plan for northern Nevada. The objective was to ensure that all ITS investments in northern Nevada have common communication protocols, avoid duplication of investments in infrastructure, provide the ability to access and share data between

agencies, and bring northern Nevada into compliance with the nationally established ITS standards and architecture. The Integration and Strategic Deployment Plan provides a framework for current ITS elements in the region and a strategic approach to all future ITS investments.

Washoe County Freeway Corridor Study, January 2003. This study was a planning-level analysis that identified freeway improvements needed within the Reno/Sparks metropolitan area between now and 2030. The study included I-80 and US 395/I-580 and defined the investment needs and options for major freeways as well as potential improvements to other elements of the transportation system as congestion relievers on the freeway study corridors.

Western Nevada Transportation Study, February 2002. The primary goal of this study was to inventory existing transportation and socioeconomic trends, and to forecast these trends over the next 20 years in Carson City, Churchill, Douglas, Lyon, Storey and Washoe counties. A travel demand model was developed to quantify the amount of traffic on the existing and future transportation systems. Based on this forecast the study provided future improvement strategies focused on traffic flow improvement, aviation, land use, and zoning.

Study of Adequacy of Commercial Truck Parking Facilities. This report documents the findings of a study undertaken to investigate the adequacy of commercial truck parking facilities serving the National Highway System (NHS) in response to Section 4027 of the Transportation Equity Act for the 21st Century (TEA-21).

The Federal Highway Administration encouraged the creation of public-private partnerships at the state level and provided them a technical guidance document for their use in conducting the following activities, described in detail and summarized in the report:

- Estimate parking demand using a modeling approach.
- Inventory public and commercial truck spaces.
- Identify deficiencies by comparing supply and demand.
- Develop recommendations for improvements to mitigate identified existing or future problems.

The report indicates that the estimated annual increase for commercial truck parking demand along interstates and other NHS routes in Nevada is 2%. The demand/supply ratio is 2.62 for public facilities, 0.46 for commercial facilities, and 0.57 for the total.

Report partners provided a set of recommended actions to solve parking shortfalls identified either through this study or as a result of similar studies in other states. These actions fall into six broad categories:

- Actions to expand or improve public rest areas.*
- Actions to expand or improve commercial truck stops and travel plazas.*
- Actions to encourage the formation of public-private partnerships.
- Actions to educate or inform drivers about available spaces.*
- Actions to change parking enforcement rules.
- Actions to conduct additional studies.

*Recently completed or currently being implemented.