



Preface

P.1 INTRODUCTION

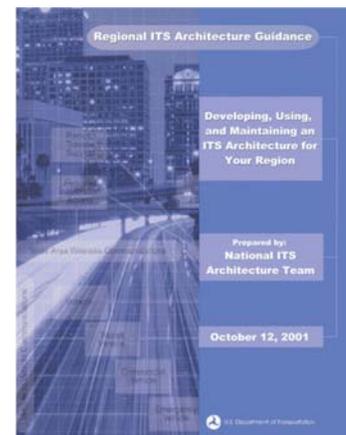
The *Regional Intelligent Transportation System (ITS) Operations & Implementation Plan for the Rogue Valley Metropolitan Area* was collectively developed by the Oregon Department of Transportation (ODOT), Jackson County, the City of Medford, the Rogue Valley Transportation District (RVTD), the Rogue Valley Council of Governments (RVCOG), the Rogue Valley Metropolitan Planning Organization (RVMPO), the Federal Highway Administration (FHWA), and Southern Oregon Regional Communications (SORC). The outcome of this plan is a 20-year deployment of ITS projects, which include advanced technologies and management techniques, aimed to improve the safety and efficiency of the transportation system. This effort is consistent with plans put together in other regions statewide to ensure that ITS strategies used are integrated and complementary. A stand-alone Executive Summary provides a quick overview of the plan and this Final Report includes the following detailed chapters that outline all of the steps involved in putting together this plan:

- ◆ Chapter 1: Current and Future Transportation Conditions
- ◆ Chapter 2: User Needs Assessment
- ◆ Chapter 3: Regional ITS Architecture
- ◆ Chapter 4: Operational Concept
- ◆ Chapter 5: Communication Requirements
- ◆ Chapter 6: Deployment Plan

A glossary of acronyms and a listing of references used throughout this report can be found in Appendices A and B, respectively.

P.2 FHWA COMPLIANCE

In order to obtain funding for ITS projects through the Highway Trust Fund, the Federal Highway Administration (FHWA) requires those projects shall be in conformance with the National ITS Architecture by April 2005¹. Table P-1 includes an itemized list of the FHWA criteria for developing a regional architecture and the part of the plan or plan process that complies with each criterion. The FHWA also requires that all ITS projects implemented shall adhere to the regional architecture and that the regional architecture be updated when the final design of a project varies from the regional architecture. The next section describes the ITS Plan and Regional Architecture maintenance.



¹ Title 23, Code of Federal Regulations (CFR), Highways, Chapter 1: Federal Highway Administration, Department of Transportation, Part 940: Intelligent Transportation System Architecture and Standards.

Table P-1. Rogue Valley ITS Plan Compliance with FHWA Criteria

FHWA Criteria	ITS Plan Compliance
Architecture Scope and Region Description	<ul style="list-style-type: none"> ◆ Chapter 1 defines the region geographically as having the same boundaries as the Rogue Valley Metropolitan Planning Organization (See Figure 1-1) ◆ A 20-Year planning horizon was used as defined in Chapter 6. ◆ Chapter 3 describes the scope of the regional architecture.
Stakeholder Identification	<ul style="list-style-type: none"> ◆ Chapter 2 provides a summary of the various regional key and expanded stakeholders. These stakeholders were linked to their associated ITS inventory elements in Turbo Architecture as described in Chapter 3.
System Inventory	<ul style="list-style-type: none"> ◆ Chapter 1 describes the system inventory, which was used as input into Turbo Architecture in Chapter 3. Appendix J includes the Inventory Report from Turbo Architecture.
Needs and Services	<ul style="list-style-type: none"> ◆ Regional user needs are documented in Chapter 2 and are mapped to the appropriate user services in Chapter 3.
Operational Concept	<ul style="list-style-type: none"> ◆ Chapter 4 provides an operational concept that outlines stakeholder roles and responsibilities by program area.
Functional Requirements	<ul style="list-style-type: none"> ◆ Functional requirements for the first five-year projects have been summarized in the detailed project descriptions in Chapter 6.
Interfaces/Information Flows	<ul style="list-style-type: none"> ◆ Interfaces have been selected between subsystems and correlating architecture flows as part of the custom Turbo Architecture database in Chapter 3. Appendix K includes a detailed list of the flows. ◆ Information flows are defined in Chapter 4. ◆ Key stakeholders reviewed all interfaces and information flows.
Project Sequencing	<ul style="list-style-type: none"> ◆ Chapter 6 identifies a project sequencing schedule, which is divided into a 5-Year Plan, 10-Year Plan, and 20-Year Plan. ◆ Additional details are provided in Chapter 6 about the major projects that fall within the 5-Year Plan.
Agreements	<ul style="list-style-type: none"> ◆ Chapter 1 outlines existing operational agreements between agencies. ◆ Chapter 4 suggests additional potential agreements.
Standards Identification	<ul style="list-style-type: none"> ◆ ITS standards, including identification of standards potentially relevant to the Rogue Valley and the 5-Year Plan projects, are discussed in Chapters 3 and 6.
Using the Regional ITS Architecture	<ul style="list-style-type: none"> ◆ As described in this Preface, the Steering Committee plans to: <ul style="list-style-type: none"> ▪ Continue to meet at least twice per year to guide the implementation of the ITS Plan. ▪ Incorporate the ITS Plan in the upcoming <i>Regional Transportation Plan</i> update in April 2005.
Maintenance Plan	<ul style="list-style-type: none"> ◆ The RVMPO will be responsible for updating the regional architecture and the ITS Plan. ◆ Architecture updates will be reviewed by the Steering Committee and will be coordinated with ODOT, who manages the statewide architecture.

P.3 ITS PLAN IMPLEMENTATION AND MAINTENANCE

This section outlines the lead agency roles, the regional architecture maintenance process, and the Steering Committee roles necessary for the successful implementation of this ITS Plan within the Rogue Valley metropolitan area.



P.3.1 Lead Agency Roles

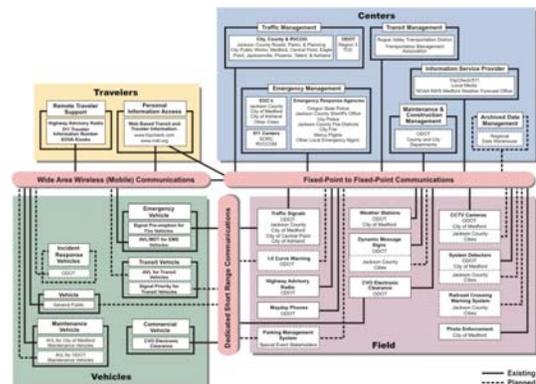
The Rogue Valley Metropolitan Planning Organization (RVMPO) has volunteered to take the lead agency role for ITS plan implementation and maintenance. Key roles that the RVMPO will assume include the following:

- ◆ Manage the Steering Committee and hold at least two meetings per year.
- ◆ Incorporate the ITS Plan as a separate section of the *Regional Transportation Plan (RTP)* update scheduled for April 2005.
- ◆ Incorporate ITS projects into regional project prioritization lists.
- ◆ Coordinate funding applications for ITS projects.
- ◆ Coordinate and track project implementation.
- ◆ Maintain the regional architecture, including the Turbo Architecture 3.0 file.
- ◆ Arrange public outreach sessions as needed.
- ◆ Provide updates to the RVMPO Policy Committee, Technical Advisory Committee (TAC), and Public Advisory Council (PAC) as needed.

P.3.2 Regional Architecture Maintenance

One of the keys to successful ITS plan implementation is the maintenance of the plan and architecture as ITS projects are implemented, as regional ITS needs and services evolve, and as new technologies emerge. The architecture must be maintained per federal requirements and the FHWA recommends updating the regional architecture for the following primary reasons²:

- ◆ Changes in regional needs
- ◆ Addition of new stakeholders
- ◆ Changes in scope of services considered
- ◆ Changes in the statewide architecture or other architectures in adjoining regions
- ◆ Addition or deletion of projects
- ◆ Changes in project priority



The architecture maintenance will be led by the RVMPO, who will also update the Turbo Architecture 3.0 file, and the Steering Committee will provide input to any changes. Additionally, the RVMPO will coordinate with the ODOT ITS Unit so that ODOT can update the statewide architecture accordingly. Updates to the architecture will take place every three years at a minimum in conjunction with updates to the *RTP*. Significant changes to the architecture may be made at any time deemed necessary by the RVMPO and the Steering Committee and changes will be tracked using a change log.

² National ITS Architecture Team. *Regional ITS Architecture Maintenance White Paper*. Prepared for U.S. Department of Transportation. FHWA-HOP-04-004. Jan. 31, 2004.

P.3.2.1 Project Implementation and Conformity

The implementation of ITS projects in the Rogue Valley shall conform with the regional architecture per FHWA requirements. If the final design of an ITS project varies from the regional architecture, then the regional architecture shall be updated as described in this section. The FHWA requires a systems engineering analysis³ for all ITS projects on a scale commensurate to each project. The systems engineering analysis shall include:



- ◆ Identification of portions of the regional ITS architecture being implemented
- ◆ Roles and responsibilities of participating agencies
- ◆ Definition of functional requirements
- ◆ Analysis of alternative system configurations and technology options to meet functional requirements
- ◆ Procurement options
- ◆ List of applicable ITS standards and testing procedures
- ◆ Operations and management procedures and resources

P.3.3 Steering Committee Roles

The Steering Committee, which consists of key stakeholders described in Chapter 2, helps foster inter-agency coordination and build consensus throughout the region. The continuing roles of the Steering Committee during the implementation of the ITS plan include the following:



- ◆ Attend at least two meetings per year.
- ◆ Make decisions regarding project phasing. As opportunities arise (i.e. funding source, priority shift, or concurrent construction), adjust the project phasing as appropriate.
- ◆ Help with or coordinate funding applications.
- ◆ Help with or coordinate project implementation.
- ◆ Develop memoranda of understanding (MOU's) or intergovernmental agreements (IGA's) as required.
- ◆ Prepare plans and standards (i.e. incident management plans and standards for communication design, work zones, and data management).
- ◆ Review changes to the regional architecture.

³ Title 23, Code of Federal Regulations (CFR), Highways, Chapter 1: Federal Highway Administration, Department of Transportation, Part 940: Intelligent Transportation System Architecture and Standards.