# AUSTIN REGIONAL
# INTELLIGENT TRANSPORTATION SYSTEMS

# DEPLOYMENT PLAN
## and
# ARCHITECTURE AND OPERATIONAL CONCEPT

# EXECUTIVE SUMMARIES

Prepared For:
Texas Department of Transportation
Austin District



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# Executive Summary

The primary mission of the Texas Department of Transportation (TxDOT) Austin District Intelligent Transportation Systems (ITS) initiative is to enhance the safety and efficiency of transportation throughout the Austin region. This will be accomplished by the application of traffic, transportation, and emergency management technology to reduce traveler frustrations associated with recurring ("peak"-type), non-recurring ("surprise"-type), and construction-related congestion. Additionally, TxDOT Austin District is working with the City of Austin and Travis County to implement an integrated regional emergency communications and transportation management center for the Austin Region (The 9-1-1 RDMT Project). The project will also upgrade the communications systems (voice and data communications) and the dispatch system used by the project partners.

The 9-1-1 RDMT project presents a unique opportunity to integrate emergency management and traffic management. To guide the integration of these systems, a regional ITS architecture was developed based on the National ITS Architecture.

# Deployment Plan

The primary focus of this document is to identify and prioritize the user needs of the region, existing and planned projects, and to describe a procedure for submitting additional projects within the scope of the regional architecture. This deployment plan will be used as a guide for implementation of the Austin Regional ITS Architecture.

The user needs, represented by market packages, were derived from initial interviews with stakeholders and prioritized through a Delphi survey. These market packages have a direct correlation with equipment used to perform tasks to satisfy a need. They therefore can be easily organized into projects to be implemented. The projects are prioritized for implementation using synergies from the market packages and available funding. A detailed listing of the projects is enclosed.

Finally, a procedure is presented for submitting new projects for the region. This procedure involves the Austin steering committee, their roles and responsibilities and how to become a member. A project approval process is set forth which includes the Capitol Area Metropolitan Planning Organization and TxDOT Austin District ensuring conformity to the architecture.

# Architecture and Operational Concept

The primary focus of this document is the conceptual design of the Austin Regional ITS Architecture. This design is portrayed in a series of lists and graphics depicting a systems inventory of the existing and future ITS entities, the market packages used to satisfy user needs for the region, information interconnects between the inventory entities, and finally, the interface definitions of these interconnects.

The process used to develop the Austin Regional ITS Architecture is illustrated to provide insight to the creation and to aid in the maintenance of the Regional Architecture. The Austin Regional ITS Architecture document is to be considered a "living" design. Changes in user needs for the region and updates to the National ITS Architecture will occur and will therefore need to be reflected in the regional ITS architecture.

An integration strategy is provided to aid in the implementation of the Austin Regional ITS Architecture and to ensure that an integrated regional transportation system is achieved. This strategy addresses the goals and objectives for the region and how they can be measured for effectiveness. Also discussed are the synergies between the market packages used to satisfy the needs of the region. The synergies allow project planners to optimize function and cost when developing an implementation plan.

The operational concept, reflected in the stakeholders' interviews, identifies the rolls and responsibilities of the participating agencies. It describes general operational concepts for incident detection, verification, and response and reveals how the information gathered about the region can be used for planning purposes.