

Brazos Valley Regional ITS Architecture and Deployment Plan Summary

Intelligent Transportation Systems (ITS) is a term used to describe projects that utilize today's technology to solve transportation challenges. Local examples of ITS projects that have been deployed include video detection of automobiles at signalized intersections, the use of dynamic message signs (SH6/Rock Prairie Road) to provide traveler information, computer aided dispatch for emergency vehicles, and signal preemption for emergency vehicles.

The Federal Highway Administration issued a rule in January of 2001 requiring ITS projects funded through the Highway Trust Fund to conform to the National ITS Architecture and applicable standards. FHWA has further established a deadline of April 2005 for regions to have an ITS architecture in place. The purpose for conforming to a national standard is to ensure that these systems may be interfaced across governmental boundaries if desired.

To meet these requirements, the Texas Department of Transportation (TxDOT) initiated the development of regional ITS architectures and deployment plans throughout the state. Stakeholders from across the Brazos Valley, including several City of College Station staff, have worked together with TxDOT over the past year to develop our regional ITS architecture and deployment plan. The regional ITS architecture was developed by each stakeholder listing ITS technologies that could be implemented within the region over the next 20 years.

The deployment plan consists of prioritizing these potential projects based on the time frame which it could be implemented. The priorities include high priority (within 5 years), medium priority (within 10 years), and low priority (within 20 years). It is important to note that the priorities were estimated based on the best available information. It is expected that the priorities and their associated implementation schedule will change.

For the purposes of this project, ITS technologies have been organized into the following six categories. For information on specific ITS technologies that are considered for the Brazos Valley and their related priority, please see Table 2 in the attached [Executive Summary](#).

- **Traffic and Travel Management** – includes TxDOT Bryan Traffic Management Center communication, detection systems, closed circuit television, dynamic message signs, broadcast traveler information, railroad operations coordination, and other related technologies.
- **Public Transportation Management** – includes transit and paratransit automated vehicle location, and transit traveler information systems.
- **Commercial Vehicle Operations** – Hazardous materials permitting and coordination with other governmental agencies.
- **Emergency Management** – includes emergency operations/management centers, improved information sharing among traffic and emergency services, and enhanced hazardous materials evacuation.
- **Information Management** – includes electronic data management and archiving systems.
- **Maintenance and Construction Management** – includes maintenance and construction vehicle tracking, roadway maintenance and construction information, and work zone management.

As a final step in the development of the Brazos Valley Regional ITS Architecture and Deployment Plan, a Memorandum of Understanding (MOU) was prepared for the participating stakeholder agencies. The purpose of the MOU is to acknowledge their participation and approval of the plan, and to pledge their support in the implementation and operation of intelligent transportation systems in the Brazos Valley Region.