

AUSTIN AREA-WIDE  
IVHS PLAN  
and  
IH-35 CORRIDOR  
DEPLOYMENT PLAN

Submitted to the

U.S. Department of Transportation  
Federal Highway Administration  
Region 6 Texas Division

Prepared by the

Texas Department of Transportation  
Austin District  
Transportation Operations

In cooperation with the

City of Austin  
Department of Public Works and Transportation

With the assistance of the

University of Texas at Austin  
Center for Transportation Research  
and  
Wilbur Smith Associates

February 1998

## ACKNOWLEDGEMENTS

The principal investigators for the TxDOT Austin District included Ms. Imelda Barrett, P.E. and Mr. Brian D. Burk, P.E. Principal investigators from the City of Austin Department of Public Works and Transportation were Mr. James J. Dale and Mr. Alan Hughes, P.E. Additional assistance was provided by Mr. David G. Gerrard, P.E., Mr. Ali Modzbar, P.E., Ms. Samileh Mozafari, P.E., Mr. Enoch N Needham, P.E., and Mr. Denton Zebrowski.

The authors also wish to thank Mr. Jerry DeCamp, P.E., Ms. Karen Glynn, P.E., and Mr. John Roscher without whose initial enthusiasm and dedication this report would not have been possible.




## DISCLAIMER

This report has been prepared in cooperation with the U.S. Department of Transportation (USDOT), Texas Department of Transportation (TxDOT), City of Austin, University of Texas at Austin (UT), and Wilbur Smith Associates. The opinions, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the USDOT, TxDOT, City of Austin, UT or Wilbur Smith Associates.

## EXECUTIVE SUMMARY

This report documents a significant and largely in-house effort by the Texas Department of Transportation and the City of Austin to study and develop an intelligent transportation system (ITS) deployment plan for the Austin area. ITS issues, strategies, and technologies pertinent to the Austin area are discussed in relation to distinct tasks.

The objectives of this study are designed to support the future operational tests and implementation of ITS user services by various agencies on corridors in the Austin metropolitan area. Specific objectives for this study are:

-  Develop organizational structure,
-  Develop area wide ITS plan, and
-  Deployment on IH 35 corridor.

Important milestones have been reached during this study that will enable a successfully integrated intelligent transportation system for the Austin area. These milestones form a strong and stable foundation for future integrated ITS initiatives.

An organizational structure was formed during the completion of Task I and Task II that created and cemented partnerships between transportation and emergency service agencies across treacherous jurisdictional boundaries. These partnerships have been strengthened throughout the rest of the study and support a strong foundation for future integrated ITS initiatives.

Private commodity freight transportation was also identified in Task I as a significant partner in future ITS deployment in the Austin area. The concerns of this important local ITS stakeholder have been included in the recommended local ITS deployment process developed in this study.

Results of Tasks III, IV, and VI reveal a clear direction in deployment of ITS techniques and technologies for the Austin area. Surveillance identified a cost effective technique with reliable and proven technology vital to support the operation and evaluation of future ITS deployment initiatives in the Austin area. Information available from surveillance techniques and technologies supports virtually every ITS user service making it the idea priority for deployment in the Austin area.

Issues needing resolution to successfully implement a strategic plan are discussed in Task V. A strategic plan identifying four areas for deploying ITS in the Austin area are presented. These four strategic areas are:

- Surveillance,
- Incident Management,
- Centralized and Multi-Agency Service Center, and
- Traveler Information.

Finally, Task VII identifies plans, specifications, and estimate (PS&E) for three specific projects designed to support study objectives and the strategic plan. These projects signify the genesis of integrated ITS deployment recommended in this study.

## ORGANIZATION OF REPORT

Introduction

Task I: Austin ITS Organization and Procedures

Task II: Identify/Assess Existing Resources from All Participating Agencies

Task III: Evaluate State of the Art Traffic Management Techniques and IVHS Technologies

Task IV: Identify/Assess Roadways

Task V: Austin ITS Strategic Deployment Plan

Task VI: Austin ITS Assessment/Evaluation Criteria

Task VII: IH 35 Action Plan

Appendix IA: Telephone Interview of IVHS EDP Cities

Appendix IB: Austin Area ITS Stakeholders

Appendix IC: Transportation Survey Tally

Appendix ID: Local Agency Meeting Notes

Appendix IE: TxDOT Advisory Committees

Appendix IIA: City of Garland 1992 Staffing Survey

Appendix IIB: IH 287 Incident Management Plan

Appendix IIC: IH 287 Alternate Routing Plan

Appendix IID: Austin Fire Department Alarm Dispatch of a Multi-Company Response

Appendix IIE: Freight of Austin Metropolitan Transportation Plan

Appendix IIIA: Evaluation of IVHS Technology for User Services in the Dallas Urban Area

Appendix IVA: Austin ITS Steering Committee Individual Organization Roadway Priorities

Appendix IVB: Roadway Preliminary Cumulative Scores

Appendix IVC: Average Vehicle Delay Rate and Average Accident Frequency

Appendix IVD: Lamar Boulevard Directional Volume Splits

Appendix VA: Implementation Plan for the TxDOT Austin District Traffic Management System

Appendix VB: City of Austin Arterial-Street Surveillance and Incident Management System

Appendix VIIA: IH 35 PS&E

Glossary

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