Period Covered: December 1, 1997 – November 7, 2001

State Planning and Research Program

Project Title: Urban Mobility Study

Project Manager and Phone Number:	**Project No:**	Project is:
Kevin Lancaster **Transportation Planning and Programming Division** **(512) 486-5149**	SPR 3(049)	__X__ PLANNING ____ RESEARCH & DEVELOPMENT
Budget for Voucher Period: $760,000	**Costs for Multi Year Project** Estimated Budget for the 6-Year Project: $1,305,000 Total Cost to Date: $760,000	

Description of Work Performed and Progress:

Obtained local data and reports on operations and demand management. Found data on several HOV projects, incident management, traffic signal coordination, ramp metering, and travel demand management. Most of these reports did not have sufficient description of the before conditions or operating practices to allow benefit estimates to be incorporated into UMS procedures. TTI also assisted MnDOT in ramp meter evaluations. Developed procedures to include the effect of these treatments in mobility analyses. Prepared the "Keys to Estimating Mobility" report with examples of applying mobility measures. This report was expanded as more information was gathered. More illustrations of congestion measures were included. Prepared a multimodal analysis to show what could be included. Assisted with the Denver Sante Fe corridor analysis as a test case. Assisted with a small city application of the methodology in Grand Junction, Colorado. Assisted WSDOT in development of travel delay methodology.

Compared improved speed estimation procedure to archived data and computer model estimates and revised the procedures where needed. Improved estimates by increasing speeds for each volume range, adding the "extreme" range for very congested roadways and developed the "time when congestion might affect the system" factor that provides better estimates of small urban congestion.

Examined periodic travel time and speed data collection efforts in sponsor states and incorporated into procedures. Decided that results of periodic studies could not be incorporated. The periodic studies were used to revise the speed estimating procedures. Decided to concentrate on archived data and sought funds from FHWA for the Mobility Monitoring Program (MMP). Once the MMP project came onboard, real-time speed and travel time data was incorporated into the database and speed estimation process. Determined that there are not enough instrumented roadways to provide comprehensive coverage with real-time data. Incorporated the real-time data into a revised speed estimation process. Found very few street information datasets.

Revised computer programs to operate more efficiently, provide user friendly output and adjusted for new HPMS data. Used these programs to produce the Annual Report. Found that the HPMS data was much more consistent than in previous years and processing information could be completed more quickly. Decided to skip the November 2000 Annual Report (1998 data) and produce a May 2001 Annual Report with 1998 and 1999 data.

Produced the Annual Report (each year except in 2000 as noted above), methodology description, individual urban area statistics and sponsor state statistic report summaries. Answered hundreds of phone calls regarding the study throughout each year. The website handled thousands of user sessions during this time period.

Developed and refined reliability performance measures. Produced a technical memorandum on measures, data elements, and potential for modeling reliability statistics.

STATUS AND COMPLETION DATE

Percentage of work completed to date for total project
Project is: ___%

__X___ on schedule _____ behind schedule, explain:

Expected Completion Date: ___on going study_____

Project Manager