UTC PROJECT DESCRIPTION

PROJECT NUMBER:
99328

PROJECT TITLE:
Tranplan and GIS Support

PRINCIPAL INVESTIGATOR:
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PROJECT OBJECTIVES:
There are two main objectives of this work, 1) provide training through scheduled workshops at interested Alabama cities on travel demand models and GIS. These workshops will focus on the basics of the UTPP Four-Step process, operation of the specific travel demand model, integration of the model with GIS, and use of the combined system for future travel forecasting. And, 2) enhance the interface and documentation to facilitate easier use of the integrated environment.

PROJECT ABSTRACT:
Travel demand models are computerized programs intended to forecast future roadway traffic volumes for a community based on selected socioeconomic variables and travel behavior algorithms. Software to operate these travel demand models is currently available to all 12 of the state’s Metropolitan Planning Organizations (MPOs), provided by the Alabama Department of Transportation (ALDOT). Unfortunately, many planners and engineers responsible for maintaining and operating these models have received little formal education regarding the model development, basics of transportation planning within the Four-Step Urban Transportation Planning Process (UTPP), calibrating and validating the model, and using the model for traffic forecasts. The two main objectives of this work are to provide training to interested Alabama cities on travel demand models and GIS and enhance the interface and documentation to facilitate easier use of the integrated environment.

PROJECT TASK DESCRIPTION:
Task A1. Identify Needs for Alabama Cities
Task A2. Prepare Educational Material
Task A3. Provide the Workshops at Convenient Times and Locations
Task B1. Improve Existing Interface and Documentation
Task B2. Beta Testing of the Improve Interface
Task B3. Develop Final Interface and Documentation

PROJECT MILESTONE DATES:
Project Startup – Jan. 1, 2000
Beta Test Versions of Software Available – September, 2000
Project Ends – Dec. 31, 2000

BUDGET:
One-year project; UTCA $12,772; total budget $25,536.

STUDENT INVOLVEMENT:
One undergraduate student will be hired to work on this project. In addition, this work will be incorporated into undergraduate and graduate transportation planning courses offered through the Department of Civil and Environmental Engineering at the University of Alabama in Huntsville.

RELATIONSHIP TO OTHER RESEARCH PROJECTS:
This project can be viewed as a stand-alone project as it does not tie into any other UTCA projects.

TECHNOLOGY TRANSFER ACTIVITIES:
This project directly supports the technology transfer goals of the UTCA, as the products generated through this research will be provided to all interested cities with enhanced documentation and on-site workshops/training sessions.

POTENTIAL BENEFITS OF THE PROJECT:
The potential benefit the work being proposed is two-fold. First, the workshops will provide transportation planners and engineers employed at Alabama cities a mechanism to be educated on the specifics of travel demand modeling, and the integration of these models with GIS. Second, this work will improve the interface and documentation allowing Alabama cities to continue using the interface in the future to increase the accuracy of their travel forecasts, thus allowing for better allocation of scarce resources resulting in improved system management.

TRB KEYWORDS:
Travel modeling, GIS, training/workshops.