PROJECT DESCRIPTION

PROJECT NUMBER:
00474

PROJECT TITLE:
Software Support for ALDOT HES Efforts (Phase 2)

PRINCIPAL INVESTIGATORS:
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PROJECT OBJECTIVE:
This project continues the work begun in 1999, identifying Alabama Department of Transportation (ALDOT) safety functions that might be consolidated at the University Transportation Center for Alabama (UTCA), and continuing enhancements to ALDOT’s existing traffic safety software.

PROJECT ABSTRACT:
This project continues the development of the Crash Analysis Information Division (CAID) of UTCA. CAID activities will fall into two categories: recurring-tasks that require a staff of professionals who are trained and prepared to carry out the tasks, and special-projects that are one-time in nature and that fall heavily on faculty members who will propose, staff and conduct them. The proposed HES activities in this project will deal largely with conversion and development tasks. As these special activities prove successful, CAID can assume more and more routine operational aspects of the accident investigation and surveillance functions, and can augment the efforts of ALDOT in this regard.

PROJECT TASK DESCRIPTIONS:
1. Continue to implement safety software systems under the CARE system.
2. Develop software to automate the final step of the CORRECT process, optimization.
3. Fully implement and deploy the rate/quality control methodology.
4. Fully deploy the Early-Warning system for locations that are undergoing change.
5. Develop a more-effective location specification system within CARE.
6. Extend the GPS/GIS prototype consistent with the findings of an ongoing UTCA project that is pilot testing the concept in Tuscaloosa (UTCA project 99115).
7. Provide at least two CARE all-day, hands-on training sessions.
8. Fully implement Intersection Magic as a tool for automated collision-diagram drawings.

MILESTONES AND DATES:
• June 11, 2000 – Initiate project. Note that all tasks can proceed independently on each other, and that they will be conducted concurrently.
• June 10, 2001 – Conclude project.

TOTAL BUDGET:
One-year project: Alabama Department of Transportation $252,293.

STUDENT INVOLVEMENT:
Two undergraduates and two graduate students will be employed on this project.

RELATIONSHIP TO OTHER RESEARCH PROJECTS:
This project is a continuation of UTCA project 99456 – “Software Support for ALDOT HES Efforts.” This project will also begin implementing the findings of UTCA project 99115 “Improving Crash Location, Display and Analysis By Combining GIS and GPS Technologies,” by Dr. Andy Graettinger.

TECHNOLOGY TRANSFER ACTIVITIES:
Task 2 includes preparation of training materials. Task 7 includes at least two all-day, hands-on training sessions for ALDOT Division office and local CARE users. Task 8 includes training on the Intersection Magic module.

POTENTIAL BENEFITS OF THE PROJECT:
As with the initial phase of this project (99456), the current project will produce indirect benefits. The enhancements to safety software will make safety studies easier and more complete, increasing the accuracy of such studies, and (indirectly) reducing the number of collisions.

TRB KEYWORDS:
Traffic safety software, crash data analysis, automated collision diagrams, safety trend analysis, crash early warning system, crash location, GIS/GPS